

September 17, 2019

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VIA ELECTRONIC MAIL

Re: The abiding need to prepare a new or supplemental Programmatic Environmental Impact Statement for expanded plutonium pit production at the Los Alamos National Laboratory in New Mexico and the Savannah River Site in South Carolina.

We are writing on behalf of the public interest organizations the Natural Resources Defense Council, Nuclear Watch New Mexico, Savannah River Site Watch, and Tri-Valley Communities Against a Radioactive Environment to advise the Department of Energy (“DOE”) and the National Nuclear Security Administration (“NNSA”) of the continuing need to prepare a Programmatic Environmental Impact Statement (“PEIS”) for the proposal to produce plutonium pits—the cores of nuclear weapons—at both the Los Alamos National Laboratory (“LANL”) in New Mexico and the Savannah River Site (“SRS”) in South Carolina.

We sent a letter on May 17, 2019 explaining the need for a PEIS for the new proposal to produce plutonium pits at multiple sites, and explaining that DOE’s and NNSA’s failure at that time to undertake *any* NEPA process regarding this new proposal was a violation of the National Environmental Policy Act (“NEPA”). For your convenience, a copy of that letter is attached. Although NNSA failed to respond directly in writing to that letter, DOE and NNSA did apparently respond to our letter by taking some steps toward compliance with NEPA. In particular, DOE and NNSA announced on May 31, 2019 that they would prepare a site-specific Environmental Impact Statement (“EIS”) in association with the proposal to produce plutonium pits at SRS, and that they would prepare a Supplement Analysis (“SA”) to consider whether to



prepare a new or supplemental PEIS in association with the proposal to produce plutonium pits at multiple sites.¹

Since then, DOE and NNSA have issued a scoping notice for the EIS process at SRS and a Draft SA, both of which were made available for public comment. The public interest organizations represented in this letter, as well as in our previous letter, submitted comments at each available opportunity. Those comments explain in detail certain flaws in the limited analytic process that DOE and NNSA have chosen to undertake and have provided detailed suggestions for how to improve this process. For your convenience, copies of those comments are attached. We write today to reinforce the points made in these various comments and to explain why, as an overarching matter, DOE and NNSA's apparent refusal to prepare any new or supplemental programmatic environmental analysis of its indisputably programmatic decision to produce plutonium pits at multiple locations continues to violate fundamental NEPA principles.²

The NEPA process's "core focus [is] on improving agency decisionmaking," *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 769 n.2 (2004), and specifically on ensuring that agencies take a "hard look" at potential environmental impacts and alternatives "as part of the agency's process of deciding whether to pursue a particular federal action," *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 100 (1983). As such, the NEPA process "shall serve as the means of assessing the environmental impact of proposed agency actions, *rather than justifying decisions already made.*" 40 C.F.R. § 1502.2(g) (emphasis added); *see also id.* § 1502.5 (requiring that NEPA review "shall be prepared early enough *so that it can serve practically as an important contribution to the decision making process and will not be used to rationalize or justify decisions already made*" (emphasis added)). To ensure that agencies take a holistic view of their actions, NEPA mandates that any EIS must consider "connected," "cumulative," and "similar" actions. 40 C.F.R. § 1508.25(a). A PEIS is necessary where "actions are 'connected,' 'cumulative,' or 'similar,' such that their environmental effects are best considered in a single impact statement." *Am. Bird Conservancy v. Fed. Comm'n Comm'n*, 516 F.3d 1027, 1032 (D.C. Cir. 2008) (quoting 40 C.F.R. § 1508.25(a)).

DOE's and NNSA's refusal to prepare any new or supplemental PEIS for its new plan to produce plutonium pits at two locations is a profound violation of these fundamental NEPA principles. To begin with, the Draft SA and the proposed EIS presume that plutonium pit production will occur at two sites, and particularly at the two sites at LANL and SRS. As such, DOE and NNSA have entirely failed to consider alternatives to the proposal to produce plutonium pits at multiple locations. For example, since the Trump Administration's 2018 Nuclear Posture Review concluded that the United States must produce at least 80 pits annually,

¹ *See* Notice of Intent to Prepare an Environmental Impact Statement for Plutonium Pit Production at the Savannah River Site, 84 Fed. Reg. 26849 (June 10, 2019) (describing the notice as having been signed May 31, 2019).

² We respectfully request that NNSA take this letter into consideration as it decides whether to prepare a new or supplemental PEIS, and to include this letter in the administrative record for any final decision that the agency makes.

no NEPA process has considered whether plutonium pit production could be achieved more safely and with fewer environmental impacts at a single location, or even at multiple locations that are closer to one another than LANL and SRS, which are separated by over a thousand miles. Although NNSA has evidently undertaken some internal decision-making process regarding these questions, it has avoided doing so through the NEPA process that Congress specifically designed for this purpose. Likewise, because this agency decision-making has occurred largely internally, DOE and NNSA have cut the public out of the process for deciding to produce plutonium pits at multiple locations, despite the fact that informed public comment is one of NEPA's key objectives.

Instead of conducting any objective NEPA analysis for the decision to produce plutonium pits at multiple locations, or considering any alternatives to this decision in the NEPA framework, DOE and NNSA have instead decided to prepare an SA to determine whether a new or supplemental PEIS is appropriate. Moreover, the agencies' analysis in their Draft SA reveals that the agencies are not aiming to utilize the NEPA process to inform a pending decision, but instead are impermissibly using the Draft SA to justify a decision that has already been made. Thus, the Draft SA merely considers some of the impacts of producing plutonium pits at LANL and SRS, but fails to actually consider any alternatives to utilizing multiple sites to produce pits. As such, the agencies' Draft SA inappropriately turns the NEPA process on its head: rather than serving to inform the decision to produce plutonium pits at multiple sites, the agencies instead are apparently making that decision first and preparing an ostensible NEPA analysis after. This leap-before-you-look process is exactly the opposite of what NEPA requires.

Indeed, as is explained in the attached comments submitted on the Draft SA, the agencies have framed the entire inquiry of the Draft SA incorrectly, again revealing the impermissibly *post hoc* nature of the agencies' ostensible effort to comply with NEPA. NEPA's implementing regulations require agencies to prepare supplemental environmental impact statement ("SEIS") where "[t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns; or [t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9(c)(1); *see also* 10 C.F.R. § 1021.314 (DOE regulations echoing this requirement). However, the Draft SA does not even attempt to grapple with these questions. Instead, the Draft SA focuses on a conceptually distinct inquiry: namely, whether "the potential impacts of the proposed action exceed those in the Complex Transformation SPEIS." Draft SA at 26. In other words, rather than taking a hard look at the nature of the changes in the plutonium pit production program, or at new information that bears on the risks and environmental impacts of the agencies' new proposal, DOE and NNSA are instead merely inquiring whether the impacts from producing plutonium pits at multiple sites are "bounded" by the impacts considered in a previous analysis. *See, e.g.*, Draft SA at 29–36 (asserting that various types of impacts are "bounded" by analysis in the 2008 Complex Transformation SPEIS).

DOE's and NNSA's reliance on a "bounding" analysis in this instance is entirely inappropriate—as DOE's own policies explain. Neither NEPA itself, nor its implementing

regulations, nor DOE's own NEPA policies countenance such reliance on a bounding analysis for the instant situation. As DOE itself has recognized, "*bounding analyses should not be used where more accurate and detailed assessment is possible and would better serve the purposes of NEPA.*"³ Likewise, DOE's own policies recognize that "*[i]t is never appropriate to "bound" the environmental impacts of potential future actions (not yet proposed) and argue later that additional NEPA analysis is unnecessary because the impacts have been bounded by the original analysis.*"⁴

The reliance on a "bounding" analysis here is also a violation of fundamental NEPA principles because it wrongly leads NNSA to ignore or discount the significantly changed circumstances and important new information that necessitates preparation of a new or supplemental PEIS here. No previous analysis "bounds" or even remotely contemplated the major federal actions at issue here. The comments submitted on the Draft SA, and attached and incorporated by reference here, detail numerous changed circumstances and new information that, under basic NEPA principles, require a new or supplemental PEIS. For brevity's sake, this letter does not reproduce all of those changed circumstances and new information. However, as an example, the fact that DOE and NNSA have conceded that they must prepare an EIS for the plan to produce plutonium pits at the "repurposed" Mixed Oxide Fuel Fabrication Facility (MFFF) at SRS is itself a sufficient indication of a profoundly changed circumstance that warrants preparation of a new or supplemental PEIS.

By conceding that an EIS is necessary for repurposing the MFFF to produce plutonium pits—a process for which that facility was never designed, and which is especially hazardous at that facility given that it was never completed and was subject to extensive construction-related fraud—DOE and NNSA have recognized that the proposal to produce plutonium pits at that site entails significant environmental impacts that have never previously been analyzed. As such, this development constitutes a significant changed circumstance from anything NNSA previously considered in any PEIS. Indeed, NNSA leaves no room to doubt that this new circumstance is itself "significant" within the meaning of NEPA, as the Draft SA itself describes the cancellation of the MFFF as a "significant change." Accordingly, even setting aside the numerous other changed circumstances and the plethora of new information described in the attached comments, the proposal to produce plutonium pits at SRS as well as LANL by itself is sufficient to require the preparation of a new or supplemental PEIS.⁵

³ *Mini-guidance Articles from Lessons Learned Quarterly Reports, December 1994 to September 2005*, p. 2-4, USDOE Office of NEPA Policy and Compliance, October 2005, <https://www.energy.gov/sites/prod/files/miniguideance-20110511.pdf> (emphasis added).

⁴ *Id.* (emphasis added).

⁵ Although the Draft SA misleadingly asserts that NNSA previously analyzed an alternative that involved producing plutonium pits using the MFFF infrastructure, in fact the agency's 2008 Complex Transformation PEIS mentioned this prospect only cursorily and in passing, failing to take the "hard look" that NEPA requires. Moreover, since NNSA issued the 2008 Complex Transformation PEIS, the MFFF has encountered highly significant obstacles that bear directly on the viability of, and environmental impacts from, using this facility for the highly hazardous process of producing plutonium pits. Indeed, these obstacles were so significant that NNSA recently cancelled the

Finally, in addition to a new or supplemental PEIS being clearly necessary under NEPA's implementing regulations and DOE's own regulations (as described in the attached comments), as a separate matter DOE and NNSA remain subject to a court order that mandates the preparation of a new PEIS under these circumstances. That order establishes that:

Prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability for a capacity in excess of the level that has been analyzed in the SSM PEIS (the capacity analyzed in the SSM PEIS is the fabrication at LANL of 50 pits per year under routine conditions, and 80 pits per year under multiple shift operations), *DOE shall prepare and circulate a Supplemental PEIS*, in accordance with DOE NEPA regulation 10 C.F.R. § 1021.314, *analyzing the reasonably foreseeable environmental impacts of and alternatives to operating such an enhanced capacity, and issue a Record of Decision based thereon.*

Nat. Res. Def. Council v. Pena, 20 F. Supp. 2d 45, 50 (D.D.C. 1998) (emphasis added). DOE and NNSA's proposal to produce at least 80 pits per year, and to do so at multiple sites, is plainly "in excess of the level that has been analyzed" previously. *Id.* Accordingly, the plain terms of this court order require the agencies to prepare a new or supplemental PEIS for this decision. We remind DOE and NNSA that the Natural Resources Defense Council and Tri Valley Communities Against a Radioactive Environment were parties to this court order and advise the agencies that these entities remain ready to enforce this order if necessary.

At bottom, it appears that DOE and NNSA are attempting to circumvent NEPA by impermissibly separating analysis of proposed activities at LANL and SRS into separate environmental reviews, when in fact a programmatic review is necessary for this plainly programmatic action. Moreover, it appears that the agencies are motivated mainly by haste, because they remain uncertain about their logistical ability to achieve their desired level of pit production by 2030. However, we advise the agencies that timely compliance with NEPA is the best means for the agencies to keep these projects on track, as a failure to rigorously comply with NEPA may necessitate litigation, including if necessary motions for injunctive relief, all of which would likely increase the expense of DOE's and NNSA's proposed actions and extend their timelines further. Accordingly, we strongly encourage DOE and NNSA to come into compliance with NEPA by preparing a new or supplemental PEIS for its proposals regarding plutonium pit production, and to do so immediately. If the agencies continue on their current trajectory, we will have no

completion of the MFFF altogether and brought a lawsuit against the facility's contractor to seek damages associated with construction-related fraud. These developments plainly reveal that the situation surrounding the MFFF facility has changed in significant ways since 2008. In reality, the Complex Transformation PEIS plainly did not consider any impacts associated with the profoundly changed circumstances surrounding the MFFF—namely, the fact that it was fraught with construction fraud and abandoned in a partially completed state.

choice but to evaluate all our options to enforce compliance with federal environmental laws.

Sincerely,

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Sen. Martin Heinrich, Ranking Member, Strategic Forces Subcommittee, SASC
Sen. Lindsay Graham, South Carolina
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Attachment A

May 17, 2019 Letter Regarding Need for PEIS for Plutonium Pit Production

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VIA ELECTRONIC MAIL

Re: The need to prepare a Programmatic Environmental Impact Statement in connection with plans to expand plutonium pit production at the Los Alamos National Laboratory in New Mexico and the Savannah River Site in South Carolina.

On behalf of the public interest organizations Nuclear Watch New Mexico, Savannah River Site Watch, the Natural Resources Defense Council, and Tri-Valley Communities Against a Radioactive Environment (collectively “the Nuclear Safety Organizations”), we are writing to notify the Department of Energy (“DOE”) and the National Nuclear Security Administration (“NNSA”) of the need to prepare a Programmatic Environmental Impact Statement (“PEIS”) in connection with the agencies’ stated plan to expand the production of plutonium pits for nuclear weapons at the Los Alamos National Laboratory (“LANL”) in New Mexico and the Savannah River Site (“SRS”) in South Carolina. Because the National Environmental Policy Act (“NEPA”) mandates that “[a]gencies shall integrate the NEPA process with other planning *at the earliest possible time* to ensure that planning and decisions reflect environmental values,” 40 C.F.R. § 1501.2 (emphasis added), DOE and NNSA must begin the preparation of a PEIS now.

EXECUTIVE SUMMARY

The Trump Administration’s 2018 Nuclear Posture Review called for the expanded production of nuclear weapons for the first time in many years, and specifically called for production of 80 plutonium pits (the cores of nuclear weapons) per year by 2030. To that end,



the Department of Energy (“DOE”) and the National Nuclear Security Administration (“NNSA”) plan to expand production of plutonium pits at the Los Alamos National Laboratory in New Mexico and to repurpose an incomplete facility at the Savannah River Site in South Carolina. At Los Alamos, this plan will require roughly tripling plutonium pit production in facilities with nuclear safety deficiencies so severe that DOE suspended all nuclear weapons production there for over four years, and which DOE recently found have not been adequately resolved. At the Savannah River Site, this plan will require repurposing a facility that was never designed for plutonium pit production, that is still incomplete, and that has been subject to construction-related fraud. Both aspects of DOE and NNSA’s plan to expand plutonium pit production entail serious risks for the environment and public safety. Additionally, these plans will cost at least \$9 billion over the next ten years and at least \$42 billion over the project’s duration.

The National Environmental Policy Act (“NEPA”) requires federal agencies to take a hard look at proposed actions before committing to a course of action or making any irreversible or irretrievable commitment of resources. NEPA requires agencies to publicly disclose environmental impacts, involve the public in agency decision-making, and to seriously consider all viable alternatives to a proposed action. Thus, agencies must prepare an Environmental Impact Statement (“EIS”) for any action that may have significant environmental impacts. Where agency actions are closely related, they must be considered together in a single Programmatic EIS (“PEIS”).

DOE and NNSA have stated that it is their intention to meet the Trump Administration’s goal of producing 80 plutonium pits per year by 2030 through the expansion of pit production at Los Alamos and the Savannah River Site. Because the agencies’ previous environmental analysis for activities at Los Alamos is badly outdated and does not properly consider the serious and ongoing safety issues that led to a four-year shutdown in nuclear weapons production there, NEPA requires a hard look at the proposed expansion of plutonium pit production at that site through a new or supplemental EIS. Likewise, because the agencies have not prepared any environmental analysis for the proposal to produce plutonium pits at an incomplete facility at SRS that has been subject to construction fraud, NEPA requires the production of an EIS for this activity as well. And because the proposed actions at LANL and SRS are inextricably related aspects of DOE and NNSA’s plan to meet the Trump Administration’s call for expanded nuclear weapon production, DOE and NNSA must prepare a PEIS to consider these proposed actions together. However, the agencies instead appear to be shirking NEPA’s requirements by undertaking activities at LANL and SRS without first preparing the legally required environmental analysis. To come into compliance with NEPA, DOE and NNSA must begin the required PEIS process now.

DISCUSSION

I. NEPA.

NEPA is the “basic national charter for protection of the environment.” 40 C.F.R. § 1500.1. NEPA’s “national policy” is to “encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment . . . [and] enrich the understanding of the ecological systems and natural resources

important to the nation . . .” 42 U.S.C. § 4321. To guard against environmental damage, Congress required all federal agencies to prepare a “detailed statement” for each “major federal action significantly affecting the quality of the human environment” that includes “the environmental impact of the proposed action” as well as a thorough consideration of alternatives to the proposed action. *Id.* § 4332(c).

In light of NEPA’s mandates, the Supreme Court has reasoned that NEPA is “intended to reduce or eliminate environmental damage and to promote ‘the understanding of the ecological systems and natural resources important to’ the United States.” *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 756 (2004) (quoting 42 U.S.C. § 4321).

To achieve NEPA’s goals, federal agencies must prepare an EIS for any major federal action with significant environmental effects. 42 U.S.C. § 4332(c). NEPA’s procedures are designed to inject environmental considerations “in the agency decision making process itself,” and to “‘help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.’” *Pub. Citizen*, 541 U.S. at 768-69 (quoting 40 C.F.R. § 1500.1(c)). Therefore, “NEPA’s core focus [is] on improving agency decisionmaking,” *Pub. Citizen*, 541 U.S. at 769 n.2, and specifically on ensuring that agencies take a “hard look” at potential environmental impacts and alternatives “as part of the agency’s process of deciding whether to pursue a particular federal action,” *Balt. Gas and Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 100 (1983).

Importantly, the NEPA process “shall serve as the means of assessing the environmental impact of proposed agency actions, *rather than justifying decisions already made.*” 40 C.F.R. § 1502.2(g) (emphasis added); *see also id.* § 1502.5 (requiring that NEPA review “shall be prepared early enough *so that it can serve practically as an important contribution to the decision making process and will not be used to rationalize or justify decisions already made*”) (emphasis added).

An agency must prepare an EIS for every “major Federal action significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(c). Under NEPA’s implementing regulations, “significance” requires consideration of both context and intensity. 40 C.F.R. § 1508.27. “Context” considerations include the affected region, interests, and locality, varying with the setting of the action, and include both short and long-term effects. *Id.* § 1508.27(a). “Intensity” refers to the severity of impact, including: impacts that may be both beneficial and adverse; unique characteristics of the geographic area, such as proximity to wetlands, wild and scenic rivers, or ecologically critical areas; the degree to which the effects on the quality of the human environment are likely to be highly controversial; the degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration; whether the action is related to other actions with individually insignificant but cumulatively significant impacts; the degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act; and whether the action threatens a violation of federal law imposed for the protection of the environment. *See* 40 C.F.R. § 1508.27(b).

Under NEPA, to determine the proper scope of an EIS an agency “shall consider 3 types of actions,” including connected actions, cumulative actions, and similar actions. *Id.* § 1508.25. Connected actions include those that “are closely related and therefore should be discussed in the same impact statement” because they “[a]re interdependent parts of a larger action and depend on the larger action for their justification.” *Id.* § 1508.25(a)(1). Cumulative actions are those that “with other proposed actions have cumulatively significant impacts.” *Id.* 1508.25(a)(2). And similar actions “when viewed with other reasonably foreseeable or proposed agency actions have similarities that provide a basis for evaluating their environmental consequences together.” *Id.* § 1508.25(a)(3). An agency should analyze similar actions together “when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.” *Id.* In such circumstances, a Programmatic Environmental Impact Statement is necessary where “actions are ‘connected,’ ‘cumulative,’ or ‘similar,’ such that their environmental effects are best considered in a single impact statement.” *American Bird Conservancy v. Federal Communication Commission*, 516 F.3d 1027, 1032 (D.C. Cir. 2008) (quoting 40 C.F.R. § 1508.25(a)).

II. DOE and NNSA’s Plans for Expanded Plutonium Pit Production

In 2018, the Trump Administration issued a Nuclear Posture Review that, for the first time in many years, called for expanding production of nuclear weapons. *See* U.S. Dep’t of Defense, *Nuclear Posture Review*, February 2018, at 1–2.¹ Despite the fact that “[f]or decades, the United States led the world in efforts to reduce the role and number of nuclear weapons,” *id.* at 1, the 2018 Nuclear Posture Review reversed this strategy by calling for “a flexible, tailored nuclear deterrent strategy,” an apparent euphemism for the development of new nuclear weapons, *id.* at 2; *see also id.* at 63 (noting that the U.S. “has not executed a new nuclear weapon program for decades” and calling for “research and development” and “technology maturation” in order “to design and develop nuclear weapons”); *id.* at 52 (depicting a proposed increase in the nuclear weapons budget to levels not seen since the Cold War).

To support the Trump Administration’s call for new nuclear weapons, the Nuclear Posture Review announced the need to “[p]rovide the enduring capability and capacity to produce plutonium pits at a rate of no fewer than 80 pits per year by 2030.” *Id.* at 64. The Review further stated that in order to increase production of plutonium pits, which are the core of nuclear weapons, “significant and sustained investments will be required over the coming decade.” *Id.* Indeed, the Congressional Budget Office (“CBO”) has estimated that DOE’s plan to “produce at least 80 plutonium pits per year by 2030” will cost “about \$9 billion from 2019 to 2028.” CBO, *Projected Costs of U.S. Nuclear Forces*, January 2019, at 5.² Furthermore, NNSA recently estimated that repurposing the MOX Facility at SRS for plutonium pit production will have a “lifecycle cost” of \$27.8 billion, while expanding pit production at LANL will cost between \$14.3 billion and \$18.8 billion—meaning that over the next decades this plan will likely

¹ The 2018 Nuclear Posture Review is available online at <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>

² This CBO report is available at <https://www.cbo.gov/system/files/2019-01/54914-NuclearForces.pdf>

cost taxpayers at least \$42 billion. NNSA, *Plutonium Pit Production Engineering Assessment (EA) Results*, May 2018, at 10.³

Producing plutonium pits “entails extensive processing of very hazardous materials, which typically requires a specialized facility.” CBO, *Projected Costs of U.S. Nuclear Forces*, at 8 n.13. Plutonium pit production in the United States was performed on a large scale at the Rocky Flats Plant in Colorado until 1989, when an FBI raid investigating safety and environmental violations led to the closure of that facility. See Congressional Research Service, *U.S. Nuclear Weapon “Pit” Production Options for Congress*, February 2014, at 18.⁴ DOE has declined to attempt to restart operations at Rocky Flats and has instead undertaken a “Sisyphean history” of “failed efforts to construct a building to restore pit production.” *Id.* “The United States has not had the capacity to make more than about 10 [pits per year] since 1989.” *Id.*

Currently, the United States has the capacity to produce a very limited number of plutonium pits only at the Los Alamos National Laboratory in New Mexico, a facility with a history of serious safety problems. See DOE Office of Enterprise Assessments, *Assessment of the Management of Nuclear Safety Issues at the Los Alamos National Laboratory*, April 2019, at 1.⁵ Indeed, DOE has recognized “significant weaknesses (i.e. non-compliances with significant impact)” in LANL’s management of nuclear safety issues “over the past eleven years.” *Id.* at 2. These “significant weaknesses . . . have allowed identified problems to go uncorrected, problem recurrences to be routinely accepted, and corrective actions to often be delayed for years.” *Id.* at v. These problems led to the production of plutonium pits at LANL being shut down “for over four years.” *Id.* Moreover, DOE has recognized that despite changing the contractor responsible for managing these issues, LANL has made “only limited improvement in addressing longstanding weaknesses” and that many of these safety issues “persist, which can lead to the degradation of nuclear safety.” *Id.* Nevertheless, the Trump Administration’s plan is not only to produce plutonium pits at LANL, but to do so at a rate that has not been seen for decades. See DOE, *Final Report for the Plutonium Pit Production Analysis of Alternatives*, October 2017 at 1 (noting that DOE plans to produce 30 pits per year at LANL, but that it produced only 10 pits per year “in the early 2000s” and that no pits have been produced at LANL since 2012).⁶ DOE has acknowledged that its plan to accelerate pit production at LANL has a “high risk level,” may cause “significant unmitigated off-site consequences,” and that “[r]easonable mitigation strategies” are “unavailable.” DOE, *Engineering Assessment Report, Pu Pit Production Engineering Assessment*, April 2018, at 4-9.⁷

³ This NNSA Report is available at https://nukewatch.org/newsite/wp-content/uploads/2019/03/FINAL-Pu-Pit-Production-EA-Results-05.14.18_Unclassified.pdf

⁴ This Report is available at <https://fas.org/sgp/crs/nuke/R43406.pdf>

⁵ This DOE Report is available at <https://www.energy.gov/ea/downloads/assessment-management-nuclear-safety-issues-los-alamos-national-laboratory-april-2019>

⁶ A redacted version of this DOE Report is available at http://www.lasg.org/MPF2/documents/NNSA_PuPitAoA_Oct2017_redacted.pdf

⁷ A redacted version of this DOE Report is available at https://nukewatch.org/newsite/wp-content/uploads/2019/03/Pu-Pit-Engineering-Assessment-Report-Rev-2_20-April-2018.pdf

Because DOE does not believe that it is possible for LANL to produce plutonium pits at the rate the Trump Administration has proposed, *id.*, DOE and NNSA have also proposed to produce plutonium pits at an as-yet-incomplete Mixed Oxide Fuel Fabrication Facility (“the MOX Facility”) at the Savannah River Site in South Carolina. However, the MOX Facility was never designed for that purpose, *id.*, and has proven to be a multi-billion dollar boondoggle.⁸

Since 1991, the SRS mission has revolved principally around the storage or disposal of radioactive material, in particular plutonium from dismantled nuclear weapons. *See* Complaint, *United States of America v. CB&I AREVA MOX Services, LLC*, No. 1:19-cv-00444, ECF No. 1, at 8. In 1999, NNSA entered into a contract for the construction of the MOX Facility at SRS “to convert surplus nuclear weapons-grade plutonium into safe, stable fuel for civilian nuclear power generation.” *Id.* Construction began on the MOX Facility in 2007. *See* Government Accountability Office, *MOX Fuel Fabrication Facility: Briefings in Response to a Mandate in the National Defense Authorization Act for Fiscal Year 2017* (“GAO MOX Report”), November 2017, at 1.⁹ However, the MOX Facility project soon ran into dramatic delays and cost overruns. *See id.* (noting that cost estimates rose from \$3.4 billion to \$17.2 billion between 2007 and 2016). After spending at least \$3.4 billion on the MOX facility, *id.*, DOE has recently abandoned any intention to complete the MOX Facility. In November 2017, the Government Accountability Office found that despite DOE spending billions of dollars on the MOX Facility, it was at that time only roughly 30 percent complete. *Id.* at 4.¹⁰

In addition to stopping work on the MOX Facility after sinking billions of dollars into it, DOE has also recently revealed that the MOX Facility’s construction was subject to extensive fraud. Indeed, the government recently brought a False Claims Act case against the MOX Facility contractor and subcontractor, alleging that the contractors defrauded NNSA out of “millions of dollars” by submitting “fraudulent claims, supported by forged and fraudulent invoices, for construction related materials that did not exist.” *See* Complaint, *United States of America v. CB&I AREVA MOX Services, LLC*, No. 1:19-cv-00444, ECF No. 1, at 1–2. As such, after spending billions of taxpayer dollars, DOE now has a 30-percent-complete facility plagued by fraudulent construction practices.

Now, DOE and NNSA are considering converting the incomplete MOX Facility into a site for the production of the majority of the plutonium pits that the Trump Administration has stated are necessary. Indeed, of the 80 pits per year that DOE and NNSA say they must produce

⁸ *See, e.g.*, https://www.aikenstandard.com/news/nnsa-delivered-mox-termination-notice-this-week-construction-expected-to/article_b907332c-ce40-11e8-b971-ebc9931647b9.html (noting that the MOX Facility was “initially expected to come online in 2016 at a cost of \$4.8 billion” but that “the project’s timeline and price tag have seriously bloated” and reporting the termination of the over-budget project).

⁹ This GAO Report is available at <https://www.gao.gov/assets/690/688369.pdf>

¹⁰ DOE issued a stop work order on May 14, 2018. The State of South Carolina sought to enjoin this decision, reasoning that DOE’s intention to instead pursue a dilute-and-dispose approach to plutonium disposal violated NEPA, among other defects, but the Fourth Circuit rejected the State’s arguments. *See State of South Carolina v. United States*, No. 18-1684, ECF No. 42 (4th Cir. Jan 8, 2019).

by 2030, 50 pits would be produced at the MOX Facility. See NNSA, *Engineering Assessment Report: Pu Pit Production Engineering Assessment*, April 2018, at xi.¹¹ DOE has acknowledged the significant risks of this plan. See DOE, *Analysis of Alternatives*, at 1 (noting the “qualitative risk of reconfiguring a partially completed facility for a new mission in a new location”).

Notably, DOE and NNSA are treating the 80 pits per year as a minimum figure, meaning that the agencies would require the ability to produce more than 30 pits per year at LANL and more than 50 pits per year at SRS. See NNSA, *Pu Pit Production Engineering Assessment*, at 1-2 (“Plutonium pit production capability will be able to produce a minimum of 80 [pits per year] by 2030.” (emphasis added)); see also NNSA, *Final Report for the Plutonium Pit Production Analysis of Alternatives*, October 2017, at 1 (“The pit production requirement is an annual ‘at least’ production rate”).

Troublingly, DOE and NNSA appear to be shirking their duties under NEPA. The agencies previously acknowledged in October 2017 that any approach to meeting the Trump Administration’s goal of producing at least 80 plutonium pits per year would “require an environmental impact statement.” *Id.* at 57; see also *id.* at 60 (“all alternatives are assumed to require a full EIS”); *id.* at 65 (“All alternatives will likely require an EIS”). However, in April 2018 the NNSA stated that “only a NEPA review is required” for the conversion of the MOX Facility to plutonium pit production, without acknowledging that an EIS is clearly required for such a significant action. NNSA, *Pu Pit Production Engineering Assessment*, at 4-6. And DOE and NNSA have not acknowledged the need to prepare a Programmatic EIS to consider the entirety of the agencies’ proposed approach to meeting the Trump Administration’s expanded plutonium pit production goals. This approach flouts NEPA’s purposes and explicit requirements.

III. Analysis.

A. Repurposing the MOX Facility to Produce Plutonium Pits Requires an EIS.

NEPA requires the preparation of an EIS for any “major federal action significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(c). To determine whether impacts are significant, agencies must consider a project’s “context” and “intensity,” which is evaluated according to ten factors, 40 C.F.R. § 1508.27, any one of which may necessitate an EIS. *Ocean Advocates v. U.S. Army Corps of Eng’rs*, 402 F.3d 846, 865 (9th Cir. 2005).

To begin with, DOE’s plan to repurpose the incomplete MOX facility to produce plutonium pits is a new proposed action that has never previously been analyzed in any NEPA process. Although DOE and NNSA have prepared previous PEISs for earlier plans regarding nuclear weapons fabrication (described further below), no previous NEPA analysis has considered producing nuclear weapon components using the MOX Facility.

¹¹ This NNSA Engineering Assessment is available at https://www.lasg.org/MPF2/documents/NNSA_PuPitEA_Rev2_20April2018-redacted.pdf

Moreover, DOE and NNSA’s plan to repurpose the incomplete MOX facility plainly will have significant environmental impacts and thus requires an EIS. Beginning with the context, this plan will entail spending billions of taxpayer dollars over many years to conduct highly hazardous fabrication of plutonium pits at an incomplete facility that was never designed for this purpose. Because this plan, which bears directly on the nation’s national security interests, entails significant risks to the surrounding environment and local communities, consideration of this project’s context plainly indicates that the plan is “significant” within the meaning of NEPA. *See* 40 C.F.R. § 1508.27(a) (requiring consideration of “contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality”). Moreover, the plan to repurpose the MOX Facility to produce plutonium pits plainly implicates many of the significance criteria in NEPA’s implementing regulations, any one of which may necessitate an EIS. *See Ocean Advocates*, 402 F.3d at 865.

First, this plan may affect public health or safety, 40 C.F.R. § 1508.27(b)(2), both because the processing of plutonium for nuclear weapons “entails extensive processing of very hazardous materials,” CBO, *Projected Costs of U.S. Nuclear Forces*, January 2019, at 8 n.13, and because the fact that the MOX Facility was never designed for the production of nuclear weapon components raises very important questions about whether such activities may be undertaken safely at this Facility. *See, e.g., NNSA, Pu Pit Engineering Assessment*, at 2-39 (“The significant number of samples required to support a 50 ppy plutonium pit mission . . . could increase the material at risk . . . above the current safety basis limits”). Likewise, because the release of radiological or hazardous materials from the Savannah River Site could spread for many miles, the impacts on the neighboring populations could be dire. *See, e.g., DOE, Final Complex Transformation Supplemental Programmatic Environmental Impact Statement*, at 4-374 (acknowledging that members of the public within a 50-mile radius of SRS could be affected by radiation on the site).

Second, this plan may affect “[u]nique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.” 40 C.F.R. § 1508.27(b)(3). For example, DOE’s own description of the Savannah River Site notes that it includes “hundreds of individual wetland areas.” DOE, *Facts from the Savannah River Site*, at 2.¹² Indeed, “[s]ome SRS surface waters are classified as . . . unique and irreplaceable on a national or eco-regional basis.” DOE, *Final Complex Transformation Supplemental Programmatic Environmental Impact Statement*, at 4-356. Likewise, the portions of the Savannah River Site managed by the U.S. Forest Service includes “65,000 acres” of habitat for the endangered red-cockaded woodpecker, indicating that this is an ecologically critical area. U.S. Forest Service, *Savannah River Fast Facts*.¹³

Third, this plan would be “highly controversial,” 40 C.F.R. § 1508.27(b)(4), and would be “highly uncertain or involve unique or unknown risks,” *id.* § 1508.27(b)(5). To begin with, the extent of work that it would take to repurpose the incomplete MOX Facility remains profoundly unclear, in part because there is a dispute about the status of the construction so far.

¹² This DOE Fact Sheet is available at https://www.srs.gov/general/news/factsheets/srs_overview.pdf

¹³ This Fact Sheet is available at <https://www.srs.gov/general/news/factsheets/usfs-sr.pdf>

Thus, the GAO found that the MOX Facility is “about 30 percent complete,” while the contractor insisted that it was 74 percent complete. GAO, *MOX Report*, at 4. Meanwhile, as noted above, the United States has recently sued the MOX Facility contractor under the False Claims Act for falsifying reports on what construction activities were actually undertaken. Under these circumstances, the plan to repurpose the MOX Facility to produce nuclear weapons is both “highly controversial” and “highly uncertain” within the meaning of NEPA’s implementing regulations. As Senator Lindsay Graham stated regarding repurposing the MOX Facility, “I have no confidence you got a plan. I think you’re making this up as you go.” Senate Appropriations Committee, Energy and Water Development Subcommittee Hearing on the Proposed NNSA Budget, April 5, 2019.

Fourth, this action “may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.” 40 C.F.R. § 1508.27(b)(8). Indeed, the counties in which the Savannah River Site is located contain numerous areas listed on the National Register of Historic Places.¹⁴ Likewise, the nearby city of Augusta, Georgia also contains numerous areas listed on the National Register of Historic Places.¹⁵ Because a release of radiological or otherwise hazardous materials from the Savannah River Site could spread for many miles, the impacts to historic places within the area that could be affected by a catastrophic accident at a repurposed MOX Facility must be considered in an EIS. *See, e.g., DOE, Final Complex Transformation Supplemental Programmatic Environmental Impact Statement*, at 4-374 (acknowledging that members of the public within a 50-mile radius of SRS could be affected by radiation on the site).¹⁶

Finally, the proposed repurposing of the MOX Facility to produce plutonium pits “may adversely affect an endangered or threatened species or its habitat that has been determined to be critical.” 40 C.F.R. § 1508.27(b)(9). SRS and the surrounding area provide habitat for numerous endangered species, including the red-cockaded woodpecker, the wood stork, the shortnose sturgeon, and several species of plants. *See, DOE, Final Complex Transformation Supplemental Programmatic Environmental Impact Statement*, at 4-356–57 (listing endangered species near SRS). A release of radiological or hazardous contaminants from a repurposed MOX Facility could have severe adverse impacts on these listed species.¹⁷

Accordingly, contrary to NNSA’s statement that “only a NEPA review is required” for the conversion of the MOX Facility to plutonium pit production. NNSA, *Pu Pit Production Engineering Assessment*, at 4-6, there can be no legitimate dispute that an EIS is necessary.

¹⁴ See <http://www.nationalregister.sc.gov/aiken/nraiken.htm> (listing historic sites in Aiken County); <http://www.nationalregister.sc.gov/barnwell/nrbarnwell.htm> (listing historic sites in Barnwell County); <http://www.nationalregister.sc.gov/allendale/nrallendale.htm> (listing historic sites in Allendale County).

¹⁵ See <https://nationalregisterofhistoricplaces.com/ga/richmond/state.html> (listing historic sites in Augusta).

¹⁶ Likewise, DOE and NNSA must undertake an analysis of impacts to historic places pursuant to the National Historic Preservation Act, which agencies typically conduct in parallel with NEPA.

¹⁷ Likewise, for this reason DOE and NNSA must undertake formal consultation with the United States Fish and Wildlife Service pursuant to section 7(a)(2) of the Endangered Species Act.

B. Expansion of Plutonium Pit Production at LANL Requires a Supplemental EIS.

Where “[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,” an agency must prepare a Supplemental EIS (“SEIS”). 40 C.F.R. § 1502.9(c)(1)(ii); 10 C.F.R. § 1021.314(a). Whether new information is sufficiently significant to necessitate an SEIS “turns on the value of the new information.” *Marsh*, 490 U.S. at 374. Where “new information is sufficient to show that the remaining action will affect the quality of the human environment in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared.” *Id.* New information that “raise[s] substantial questions regarding the project’s impact [is] enough to require further analysis.” *League of Wilderness Defenders v. Connaughton*, 752 F.3d 755, 760 (9th Cir. 2014) (quoting *Klamath Siskiyou Wildlands Ctr. v. Boody*, 468 F.3d 549, 561–62 (9th Cir. 2006)).

DOE and NNSA appear to be moving forward with a plan to produce 30 plutonium pits per year at LANL without preparing any NEPA analysis that considers new information and changed circumstances since the agencies undertook their *Final Complex Transformation Supplemental Programmatic Environmental Impact Statement* in 2008. However, because important new information has come to light regarding the highly questionable safety of producing plutonium pits at LANL, the preparation of an SEIS is clearly necessary.

As NNSA has recognized, “LANL is currently authorized to produce only 20 pits per year.” NNSA, *Supplement Analysis of the 2008 Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory*, April 2018, at Appendix B-3. This is because DOE and NNSA issued a governing Record of Decision in 2009 that authorizes production of pits “to not exceed 20 pits per year.” *Id.* at 46. And although NNSA has asserted that it previously evaluated the production of 80 pits per year in 2008, *id.*, the agency’s prior analysis did not—and could not—take into account information and changed circumstances that arose after 2008.

As DOE’s own Office of Enterprise Assessments found in 2019, the management of nuclear safety issues at LANL has been sorely lacking for many years and is not significantly improving. For example, “significant weaknesses” in the management of nuclear safety issues “have allowed identified problems to go uncorrected, problem recurrences to be routinely accepted, and corrective actions to often be delayed for years.” DOE, *Assessment of the Management of Nuclear Safety Issues at the Los Alamos National Laboratory*, at v. These “significant weaknesses” can “allow layers of defense for nuclear safety to degrade to the extent they did leading to the pause in June 2013 of key fissile material operations in the Plutonium Facility at LANL for over four years.” *Id.*

Indeed, in 2013 the director of the LANL laboratory “paused all fissile material operations in the Plutonium Facility . . . due to systemic and recurring weaknesses in the . . . criticality safety program and conduct of operations.” *Id.* at 2. Moreover, “[d]ue to the scope and significance of these weaknesses that had been allowed to develop, the mitigation . . . took over four years to be completed for some of the key fissile material operations.” *Id.*

DOE found that LANL suffers from serious and ongoing problems in management of nuclear safety issues. In particular, DOE has found that “insufficient attention is given to ensuring timely and effective correction of nuclear safety issues.” *Id.* at 15. Likewise, “84% of the high-significance . . . issues did not have an extent-of-condition review to identify potential recurring or systemic issues”; “55% of the high-significance issues that involved nuclear safety analyses” never received documentation of their causes; and “approximately 46% of 196 high-significance issues had been closed without addressing the underlying cause of the event, and 96% of those issues lacked effectiveness evaluations.” *Id.* at 2. “Numerous examples” of insufficient management of nuclear safety issues “revealed practices that allowed nuclear safety issues to be lost, closed by transfer to unrelated issues, closed with promises of future action, *or intentionally closed without taking any corrective action.*” *Id.* at 18 (emphasis added).

And critically, DOE has found that LANL has shown “only limited improvement in addressing longstanding weaknesses” in the management of nuclear safety issues. *Id.* at iv. Ongoing “deficiencies in [issues management] metrics and assessments have allowed poor [issues management] practices to persist.” *Id.* at 9. Indeed, DOE found that “significant weaknesses” in the management of nuclear safety issues “at LANL persist, which can lead to the degradation of nuclear safety.” *Id.* at iv.

The editorial board of the Albuquerque Journal recently found that this “is a huge issue considering the lab is ramping up production on the devices that act as nuclear bomb triggers.” The editorial board stated that “[f]alling short of the bare minimum in the eyes of the DOE is a far cry from where the public expects or needs LANL to be.” It further emphasized that “[t]op brass must take the audit’s criticisms seriously and demonstrate above-and-beyond efforts” and “make safety the lab’s top mission.”¹⁸

Although NNSA prepared a Supplement Analysis (“SA”) for the ongoing operation of LANL in April 2018, which concluded that no SEIS was necessary, its discussion of the pertinent nuclear safety issues is wholly inadequate. The SA asserts that “DOE has taken actions to address the criticality safety concerns,” and that “[f]ull operations, including pit manufacturing, resumed . . . in August 2016.” NNSA, *Supplement Analysis of the 2008 Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory*, at 96. However, since NNSA issued that Supplement Analysis, DOE’s own Office of Enterprise Assessments has found that the deficiencies in the management of nuclear safety issues that led to the four-year shutdown at LANL are, in fact, continuing. *See supra*. Indeed, by finding that improving the management of nuclear safety issues “will be key to safely supporting increased production rates of plutonium pits through 2030,” DOE, *Assessment of the Management of Nuclear Safety Issues at the Los Alamos National Laboratory*, at v, DOE itself has revealed that the increased production of plutonium pits at LANL cannot currently be undertaken safely.

Against this backdrop of highly unreliable management of nuclear safety risks, DOE and NNSA’s counterintuitive plan to not only continue, but expand, the production of plutonium pits at LANL cannot lawfully be undertaken in the absence of an SEIS. Indeed, NNSA cannot

¹⁸ See <https://www.abqjournal.com/1316264/lanl-leaders-must-make-safety-the-labs-top-mission.html>

credibly claim to have taken any serious look under NEPA at these ongoing nuclear safety issues, because NNSA's last Supplement Analysis was issued in 2018, while DOE's findings of ongoing nuclear safety management deficiencies were issued in 2019. More critically, because NNSA's efforts to improve the management of nuclear safety issues at LANL have clearly not worked, as DOE's own analysis has found, the agencies must take the hard look that NEPA requires at these ongoing deficiencies in nuclear safety management, and at the impacts of, and alternatives to, the proposal to expand plutonium pit production. Under these circumstances, a new or supplemental EIS is clearly necessary.

C. A Programmatic EIS is Necessary to Consider These Plainly Related Activities.

As explained, NEPA requires agencies to consider multiple actions together in a single Programmatic EIS when those "actions are 'connected,' 'cumulative,' or 'similar,' such that their environmental effects are best considered in a single impact statement." *American Bird Conservancy*, 516 F.3d at 1032 (quoting 40 C.F.R. § 1508.25(a)). Here, the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility to produce plutonium pits at SRS plainly fall within the ambit of "connected," "cumulative," and "similar" actions within the meaning of NEPA, meaning that they must be considered together in a single programmatic EIS.

The expansion of plutonium pit production at LANL and the repurposing of the MOX Facility to produce plutonium pits at SRS are "connected" actions under NEPA. Connected actions "are closely related and therefore should be discussed in the same impact statement" because they "[a]re interdependent parts of a larger action and depend on the larger action for their justification." 40 C.F.R. § 1508.25(a)(1). Both the proposed expansion of plutonium pit production at LANL and the repurposing of the incomplete MOX Facility to produce plutonium pits at SRS are interdependent parts of DOE and NNSA's plan to fulfill the Trump Administration's stated goal in its 2018 Nuclear Posture Review of producing at least 80 plutonium pits per year by 2030. *See* Dep't of Defense, *Nuclear Posture Review*, at 64. Because the Administration cannot reach the Nuclear Posture Review goal without both proposed actions at LANL and SRS, and because both actions depend on the Nuclear Posture Review for their justification, these actions are "connected" under NEPA and must be considered together in a single EIS.

Likewise, both projects are "similar" because "when viewed with other reasonably foreseeable or proposed agency actions" both "have similarities that provide a basis for evaluating their environmental consequences together." 40 C.F.R. § 1508.25(a)(3). These similarities are clear. To begin with, both projects involve producing plutonium pits for nuclear weapons. Moreover, both projects are being proposed in locations where the safety of producing plutonium pits is highly questionable at best: as described above, LANL suffers from serious and ongoing deficiencies in the management of nuclear safety issues, while the MOX Facility was never designed for fabrication of plutonium pits, is still incomplete, and was the subject of fraudulent construction practices that leave the state and safety of the building highly uncertain. Finally, because both projects entail processing highly hazardous nuclear materials in facilities

with serious safety concerns, both projects are likely to have serious and similar nuclear safety issues and environmental impacts. Accordingly, both actions are “similar” under NEPA.

Furthermore, both actions also satisfy the definition of “cumulative” actions, because they will “have cumulatively significant impacts.” 40 C.F.R. § 1508.25(a)(2). A cumulative impact is “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.” *Id.* § 1508.7. Here, not only will the expansion of plutonium pit production at LANL and the repurposing of the incomplete MOX Facility to produce plutonium pits each have significant impacts in their own right, but each project will also likely have cumulative environmental impacts that should be taken into account in a single EIS. For example, because each site will be performing similar activities and working with similar materials, each site will likely generate wastes that DOE and NNSA will have to determine how to treat, store, or dispose of.

Accordingly, because the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility at SRS are clearly “connected,” “cumulative,” and “similar” actions, “their environmental effects are best considered in a single impact statement,” *American Bird Conservancy*, 516 F.3d at 1032, and a PEIS is the legally and practically appropriate way to accomplish this.

Not surprisingly, therefore, DOE’s own regulations require the production of a PEIS under these circumstances. DOE’s regulations mandate that “[w]hen required to support a DOE programmatic decision (40 CFR 1508.18(b)(3)), DOE shall prepare a programmatic EIS.” 10 C.F.R. § 1021.330(a). In turn, a “DOE programmatic decision” includes the “[a]doption of programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive.” 40 C.F.R. § 1508.18(b)(3). Here, both proposed actions at LANL and SRS are “systematic and connected agency decisions” undertaken to implement the specific “executive directive” in the 2018 Nuclear Posture Review to produce at least 80 plutonium pits per year by 2030. Accordingly, DOE’s regulations mandate the preparation of a PEIS.

In addition to the need for a PEIS being clear under NEPA and its implementing regulations, DOE is currently subject to a court order in a case brought by two of the signatories to this letter that mandates the preparation of a PEIS under the current circumstances. That order establishes the following requirement:

Prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability for a capacity in excess of the level that has been analyzed in the SSM PEIS (the capacity analyzed in the SSM PEIS is the fabrication at LANL of 50 pits per year under routine conditions, and 80 pits per year under multiple shift operations), DOE shall prepare and circulate a Supplemental PEIS, in accordance with DOE NEPA regulation 10 C.F.R. § 1021.314, analyzing the reasonably foreseeable environmental impacts of and alternatives to operating such an enhanced capacity, and issue a Record of Decision based thereon.

Natural Resources Defense Council v. Pena, 20 F.Supp.2d 45, 50 (D.D.C. 1998). Because DOE and NNSA are currently devoting resources to designing a pit production capability of *at least* 80 pits per year, including a plan to produce pits at SRS, this order clearly requires the agencies to undertake a Supplemental PEIS.

Indeed, in analogous circumstances, DOE and NNSA have undertaken PEISs in the past. For example, in 1996, DOE undertook a *Stockpile Stewardship and Management PEIS* to consider relocating pit production to LANL. Likewise, in 2003, DOE undertook (but never finalized) a *Modern Pit Facility Supplemental PEIS* to analyze a possible increase in the rate of plutonium pit production. Similarly, in 2006, DOE undertook a *Complex 2030 Supplemental PEIS* to consider the modernization of the U.S. nuclear weapons program. And most recently, in 2008, the agencies undertook a *Complex Transformation Supplemental PEIS* in order to analyze alternatives for the modernization of the U.S. nuclear weapons program. Because both the agencies' plans and circumstances at both LANL and SRS have changed significantly since that time—including the new plan to radically increase the level of plutonium pit production, the demonstrated and ongoing serious safety issues at LANL, and the dubious proposition to repurpose the incomplete MOX Facility at SRS—the agencies must undertake a new or supplemental PEIS now as well.

D. DOE and NNSA Must Begin the NEPA Process Now.

Because NEPA mandates that “[a]gencies shall integrate the NEPA process with other planning *at the earliest possible time*,” 40 C.F.R. § 1501.2 (emphasis added), DOE and NNSA must begin the preparation of a PEIS now. DOE and NNSA have already begun the process for deciding how to move forward with the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility at SRS, and the agencies must begin preparing a PEIS now “to ensure that planning and decisions reflect environmental values.” *Id.*¹⁹

DOE and NNSA have undertaken significant steps toward the expansion of plutonium pit production at LANL and toward the repurposing of the MOX Facility. For example, DOE has sought and obtained the concurrence of the Nuclear Weapons Council regarding the proposed actions.²⁰ Moreover, DOE and NNSA have already used an undisclosed amount of taxpayer funds to direct its contractor to undertake design and planning for the repurposing of the incomplete MOX Facility to produce plutonium pits.²¹ Although it is not entirely clear how

¹⁹ On October 31, 2018, the Nuclear Safety Organizations sent NNSA a similar letter explaining the need for a PEIS and requesting a response within 30 days. NNSA has not responded.

²⁰ See <https://dod.defense.gov/News/News-Releases/News-Release-View/Article/1518222/joint-statement-from-ellen-m-lord-and-lisa-e-gordon-hagerty-on-recapitalization/>

²¹ See https://www.aikenstandard.com/news/srns-tasked-with-initial-work-for-savannah-river-pit-production/article_e3f15ab0-15ec-11e9-805c-d36536fe2d31.html

much money is already being spent on this effort at SRS, DOE has requested that Congress allocate \$410 million toward design and planning for the repurposing of the MOX Facility.²²

Likewise, Lisa Gordon-Hagerty, the Administrator of NNSA has testified to the House Subcommittee on Energy and Water Development that “NNSA is investing in the Savannah River Plutonium Processing Facility,” and that “LANL is actively installing pit production equipment and has begun hiring to meet future work scope.” Testimony Statement of Lisa Gordon-Hagerty before House Subcommittee on Energy and Water Development, April 2, 2019 (“Gordon-Hagerty Testimony”), at 5–6. Ms. Gordon-Hagerty also testified that “[r]epurposing the [MOX] Facility and producing plutonium pits at SRS and LANL is the preferred path,” and that “[t]he time to move forward is now.” *Id.* at 5. Similarly, Peter Fanta, a deputy assistant secretary of defense for nuclear matters, stated that “[t]here is one plan,” and that NNSA must “[s]top discussing it, stop slowing it, stop looking at it again, stop looking at seven other alternatives.” See <https://www.exchangemonitor.com/dod-still-satisfied-nnsa-pit-plan-warns-civilian-agency-margin/>.

However, taking a hard look at the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility at SRS, and considering alternatives to this proposed plan, is precisely what NEPA requires. And because NEPA mandates that agencies undertake the NEPA process as early as possible in order to promote informed decision-making, DOE and NNSA must undertake a PEIS as soon as possible.

Until DOE and NNSA fully comply with NEPA through the preparation of a PEIS, any irreversible or irretrievable commitment of resources to either the expansion of pit production at LANL or to the repurposing of the MOX Facility at SRS is unlawful. Accordingly, we request that DOE and NNSA respond to this letter within 30 days to explain when the agencies intend to undertake the required PEIS for the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility for plutonium pit production at SRS.

Sincerely,

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CC: Sen. Lamar Alexander, Chair, Senate Energy and Water Appropriations Subcommittee
Sen. Dianne Feinstein, Ranking Member, Senate Energy and Water Appropriations Subcomm.
Sen. Tom Udall, Senate Energy and Water Appropriations Subcommittee
Sen. Deb Fischer, Chair, Strategic Forces Subcommittee, Senate Armed Services Committee
Sen. Martin Heinrich, Ranking Member, Strategic Forces Subcommittee, SASC

²² DOE, *FY 2020 Congressional Budget Request*, March 2019, at 121–22, available at <https://www.energy.gov/sites/prod/files/2019/04/f62/doe-fy2020-budget-volume-1.pdf>

Sen. Lindsay Graham, South Carolina
Rep. Adam Smith, Chair, House Armed Services Committee
Rep. Mac Thornberry, Ranking Member, House Armed Services Committee
Rep. Jim Cooper, Chairman, Strategic Forces Subcommittee, House Armed Services Committee
Rep. Deb Haaland, House Armed Services Committee
Rep. Xochitl Torres Small, House Armed Services Committee
Rep. John Garamendi, House Armed Services Committee
Rep. Ben Ray Lujan, NM-3
Mr. Bruce Diamond, NNSA Office of the General Counsel
Mr. Charles Verdon, NNSA Deputy Administrator for Defense Programs
Mr. Brian Costner, DOE NEPA Office
Ms. Nicole Nelson-Jean, Manager, NNSA Savannah River Field Office
Mr. Steve Goodrun, NNSA Los Alamos Office

Attachment B

Comments from Natural Resources Defense Council, Nuclear Watch New Mexico, Savannah River Site Watch, and Tri-Valley Communities Against a Radioactive Environment regarding DOE and NNSA's Draft Supplement Analysis



August 9, 2019

Ms. Jennifer Nelson
NEPA Document Manager
NNSA SRS Field Office
P.O. Box A, Aiken, SC 29802

By email to NEPA-SRS@srs.gov

Re: Comments on NNSA's Draft Supplement Analysis of the 2008 Complex Transformation PEIS

Dear NEPA Document Manager:

These comments by the Natural Resources Defense Council (NRDC) reiterate two fundamental points I have already made with co-counsel William N. Lawton of Meyer Glitzenstein & Eubanks, LLP in our May 17, 2019 letter to Department of Energy (DOE) Secretary James Richard Perry and National Nuclear Security Administration (NNSA) Administrator Lisa Gorden-Hagerty:¹

- 1) Given NNSA's May 10, 2018 decision to expand plutonium pit production, the National Environmental Policy Act (NEPA) clearly requires the agency to prepare a new programmatic environmental impact statement (PEIS) to supplement the 2008 Complex Transformation PEIS; and
- 2) Even if NNSA does not agree with the above, there is a 1998 court order that requires DOE to prepare a supplemental PEIS in the event NNSA's proposed plans for future plutonium pit production extend beyond fabrication at LANL of 50 pits per year under "routine conditions," or 80 pits per year under "multiple shift operations."

We intend to enforce that court order, if necessary.

A. NEPA Requires a New PEIS to Supplement the 2008 Complex Transformation PEIS

The stated purpose of the NNSA's *Supplement Analysis of the 2008 Complex Transformation Programmatic Environmental Impact Statement* is:

"... to allow NNSA to determine whether, prior to proceeding with the effort to produce plutonium pits at a rate of no fewer than 80 pits per year by 2030, the existing Complex Transformation SPEIS should be supplemented, a new environmental impact statement should be prepared, or no further *National Environmental Policy Act* (NEPA) analysis is required. The Draft SA preliminarily concludes that further NEPA documentation at a programmatic level is not required; however, NNSA will consider comments on this Draft SA and publish a Final SA."²

¹ See, *The need to prepare a Programmatic Environmental Impact Statement in connection with plans to expand plutonium pit production at the Los Alamos National Laboratory in New Mexico and the Savannah River Site in South Carolina*; Nickolas Lawton, MGE, LLP and Geoffrey Fettus, NRDC; May 17, 2019; <https://nukewatch.org/newsite/wp-content/uploads/2019/05/Summary-Pit-Production.pdf>

² *Supplement Analysis of its 2008 Complex Transformation Programmatic Environmental Impact Statement*, NNSA, June 2019, Executive Summary, <https://www.energy.gov/nepa/downloads/eis-0236-s4-sa-02-draft-supplement-analysis>

NNSA has reached the wrong preliminary conclusion. In our view, NNSA must complete a new programmatic environmental impact statement (PEIS) on its radically revised plan for expanded production of plutonium pits, the radioactive core of nuclear weapons. Simply amending the Record of Decision for the 2008 Complex Transformation (CT) PEIS will not suffice to support a decision to exceed the currently authorized level of 20 pits per year at the Los Alamos National Laboratory (LANL), which was sanctioned by the original 1996 Stockpile Stewardship and Management Programmatic Environmental Impact Statement. The need for a new PEIS is the product of numerous changed circumstances, much new information, and NNSA's new plan for simultaneous pit production at two disparate sites, separated by some 1,388 miles, a programmatic alternative that the Complex Transformation PEIS never considered.

NNSA's new proposal is sufficient justification by itself for a new PEIS. This is so for a host of reasons that should be evident. The new decision shifts the preponderance of NNSA's pit production capacity to a new site that has never hosted this activity before. Such a program entails new patterns for long-distance transportation for intrinsically hazardous plutonium in various forms, including fabricated nuclear weapons pits and plutonium-contaminated wastes. All of this could pose a hazard to the public from a security standpoint if the plutonium were to fall into the wrong hands or was dispersed into the environment by fire, a chemical explosion, or some other such unforeseen accident. Countenancing such situations is precisely what NEPA is for – prior to making the decision to proceed with such major federal programmatic actions.

To use the Department of Energy's own NEPA regulatory language, a new PEIS is required because the expansion of pit production at LANL and the repurposing of the MOX Facility at SRS are "systematic and connected agency decisions" that are clearly "connected," "cumulative," and "similar" actions, and therefore "their environmental effects must be considered in a single impact statement." Accordingly, DOE's own NEPA regulations require the preparation of a PEIS.

NNSA's Supplement Analysis erroneously claims that the drivers and requirements for expanded plutonium pit production have remained the same. To the contrary, they have substantially changed; NNSA's past rationales for expanded pit production have involved speculative new-design nuclear weapons that end-up being canceled, such as the prior "Reliable Replacement" and "Interoperable" warheads. NNSA's latest rationale is for a newly proposed W87-1 warhead. In this instance, the Department attempts to inoculate itself against future objections on these matters by asserting that if it does not use newly manufactured pits in this latest iteration, it will use them for the as yet unnamed next warhead "Life Extension Program."³ NNSA has yet to offer a concrete, consistent rationale for an expensive and substantially expanded plutonium pit production.

NEPA requires that a federal agency clearly state the national purpose and need to be met by any programmatic proposal with significant environmental impacts. Such a clear statement of DOE's purpose and need for proposing expanded plutonium pit production at a new site, and an analysis of all reasonable alternatives that might satisfy this purpose and need with fewer environmental impacts, seems especially indicated in this case given that up to 20,000 existing pits are already stored at the Pantex Plant near Amarillo, TX. Moreover, independent experts have found that existing pits have reliable lifetimes of more than a century and can, if necessary, be refurbished.⁴ All of this points to the fact that in order to fulfill its NEPA obligations, NNSA must consider the extensive reuse of existing plutonium pits as a credible alternative to expanded plutonium pit production, and that the only appropriate and legally compliant

³ See *W78 Replacement Program (W87-1): Cost Estimates and Use of Insensitive High Explosives*, NNSA, December 2018, page 6, <https://nukewatch.org/newsite/wp-content/uploads/2019/03/W78-Replacement-Program-Cost-Estimates-IHE-1.pdf>.

⁴ *Pit Lifetime Study*, JSR-06-035, November 20, 2006, the Mitre Corporation (also known as the "JASONS"), https://www.nukewatch.org/facts/nwd/JASON_ReportPuAging.pdf.

vehicle for that is a new programmatic environmental impact statement on expanded plutonium pit production.

A new PEIS is also needed to analyze the occupational and public risks of repeated, chronic nuclear criticality safety infractions at LANL and how to resolve them. By extension, the need for a more effective nuclear criticality regimen applies to any future pit production at SRS as well. A genuine, comprehensive nuclear safety regime needs to be instituted at a programmatic level, and its putative beneficial impact on hazard reduction to workers and the public analyzed in a new PEIS. This document must also review potential risks to the public from apparent systemic attempts by DOE to degrade institutional safety, such as relaxing internal nuclear safety rules and restricting access of the independent Defense Nuclear Facilities Safety Board.

Additionally, but not last, the risks of increased transport of plutonium and plutonium-contaminated wastes between NNSA sites must be analyzed in a new PEIS. The only repository for transuranic radioactive wastes from plutonium pit production is the Waste Isolation Pilot Plant (WIPP). New programmatic review is required to analyze all (if any) of the increasing radioactive waste disposal demands on WIPP, which include future expanded pit production, 34 tons or more of existing “excess” plutonium and potential attempts by DOE to “reinterpret” or downgrade some high-level radioactive wastes, likely another topic of legal dispute in another forum. A new PEIS must guarantee that all future transuranic waste packaging and shipping will be safe, given that LANL sent an improperly prepared waste drum to WIPP that ruptured, exploded, and closed that facility for nearly 3 years, costing the American taxpayer some \$3 billion.

B. The 1998 Court Order

While a new or Supplemental PEIS in the present circumstance is indicated under any good faith interpretation of NEPA and its implementing regulations, the DOE apparently does not yet perceive its obligations in this light. Therefore, we respectfully remind the Department that it remains subject to a court order that *mandates* the preparation of a PEIS in the current circumstances. That Order established the following requirement:

Prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability for a capacity in excess of the level that has been analyzed in the SSM PEIS (the capacity analyzed in the SSM PEIS is the fabrication at LANL of 50 pits per year under routine conditions, and 80 pits per year under multiple shift operations), *DOE shall prepare and circulate a Supplemental PEIS, in accordance with DOE NEPA regulation 10 C.F.R. § 1021.314, analyzing the reasonably foreseeable environmental impacts of and alternatives to operating such an enhanced capacity, and issue a Record of Decision based thereon.*⁵

DOE now proposes pit fabrication of “*at least*” 50 pits per year at SRS and “*at least*” 30 pits per year at LANL. So not only has DOE introduced an entirely new production site in a radically different climate and geography into its programmatic proposal, but the previously analyzed *limit* of 80 pits per year under “multiple shift operations” has become an open-ended capacity for “no fewer than” 80 pits per year at multiple sites. Absent further NEPA programmatic review, NNSA is limited to *no more than* 80 pits per year *at LANL*, and only through utilizing a lesser “routine” production capability for 50 pits per year in “multiple shift operations.” Since it is clear that the new proposed production rate of “no fewer than” 80 pits per year will *not* be achieved via multiple shift operation of a smaller “routine” capability *at LANL*, this too becomes another factor triggering the Court’s requirement for a Supplemental PEIS. As the principle plaintiffs’ counsel on the case, NRDC intends to defend this hard-won decision.

⁵ *Natural Resources Defense Council v. Pena*, 20 F.Supp.2d 45, 50 (D.D.C. 1998), <https://law.justia.com/cases/federal/district-courts/FSupp2/20/45/2423390/>

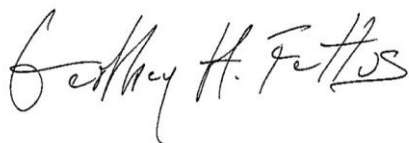
C. Conclusion

To close, in analogous circumstances, DOE and NNSA have undertaken PEISs in the past, providing ample legal precedent for why NNSA must prepare a new PEIS now. For example, in 1996, DOE undertook a *Stockpile Stewardship and Management PEIS* to consider, *inter alia*, relocating pit production to LANL. Likewise, in 2003, DOE prepared (but never finalized) a *Modern Pit Facility Supplemental PEIS* to analyze a possible increase in the rate of plutonium pit production and evaluate potential alternative sites. Similarly, in 2006, DOE undertook a *Complex 2030 Supplemental PEIS* to consider the modernization of the U.S. nuclear weapons program. And most recently, in 2008, the agencies undertook a *Complex Transformation Supplemental PEIS* in order to analyze alternatives for the modernization of the U.S. nuclear weapons program, including expanded plutonium pit production.

Because NNSA's plans and circumstances at both LANL and SRS have changed significantly in the 11 years since it last undertook NEPA programmatic analysis of this issue—and these now clearly exceed the boundaries established by Court order in 1998—the agency *must* prepare a timely Supplemental PEIS “prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability” that goes beyond “fabrication at LANL of 50 pits per year under routine conditions, and 80 pits per year under multiple shift operations.”

Indeed, by undertaking or preparing to undertake “detailed” engineering design for pit production in a “repurposed” MOX plutonium fuel facility at SRS—before completing the required Supplemental PEIS—NNSA flirts with actual or anticipatory breach of the 1998 Court Order. We would be happy to meet with relevant DOE staff and decisionmakers in order to assist the Department in its efforts to find a lawful course that complies with its NEPA obligations.

Respectfully submitted,



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August 12, 2019

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Re: Comments on NNSA's Draft Supplement Analysis of the 2008 Complex Transformation PEIS

Dear NEPA Document Manager,

Nuclear Watch New Mexico is pleased to submit our comments on *NNSA's Draft Supplement Analysis of the 2008 Complex Transformation PEIS*. Due to the highly related nature of the proposed actions for expanded plutonium pit production at the Los Alamos National Laboratory and Savannah River Site, these comments also incorporate by reference the attached comments submitted by Nuclear Watch and others regarding both this draft Supplement Analysis and the proposed environmental impact statement for the repurposing of the MOX Fuel Fabrication Facility.

Introduction

For the record, we enclose our previous remarks and outline of National Environmental Policy Act (NEPA) requirements from our May 17, 2019 letter addressed to the DOE Secretary and National Nuclear Security Administration (NNSA) Administrator, signed by Attorneys Nick Lawton of Meyer Glitzenstein & Eubanks LLP and Geoff Fettus of the Natural Resources Defense Council, representing the public interest groups NRDC, Nuclear Watch New Mexico, Tri-Valley CAREs and SRS Watch. See Attachment A.¹

Nuclear Watch is pleased that NNSA has correctly decided to prepare the relevant environmental impact statement for repurposing the MOX Fuel Fabrication Facility (MFFF) for plutonium pit production at the Savannah River Site (SRS). However, we believe that action is backwards, as NNSA must first prepare a PEIS from which the SRS-specific EIS is tiered. To further add to our argument, that PEIS is required under NEPA because:

1) It is needed to raise the plutonium pit production level from the 20 pits per year sanctioned by the 1996 Stockpile Stewardship and Management PEIS to 80 or more; and

¹ *The need to prepare a Programmatic Environmental Impact Statement in connection with plans to expand plutonium pit production at the Los Alamos National Laboratory in New Mexico and the Savannah River Site in South Carolina*; Nickolas Lawton, MGE, LLP and Geoffrey Fettus, NRDC; May 17, 2019; <https://nukewatch.org/newsite/wp-content/uploads/2019/05/Summary-Pit-Production.pdf>

2) A second site (SRS) is now proposed for simultaneous production, which is inherently a “programmatically” decision.

Outside of the National Environmental Policy Act process, a PEIS is also required by a 1998 court order requiring a PEIS when DOE begins to plan for the production of more than 80 plutonium pits per year.² Because as discussed below, the NNSA’s current approach is to produce “no fewer than 80 pits per year,” the agency has clearly triggered the need for a new or supplemental PEIS under the terms of this court order. The Natural Resources Defense Council (NRDC) was lead counsel for the plaintiffs that secured that court order and will enforce it if necessary. Please see Attachment C for NRDC’s comments.

The Need for a Programmatic Environmental Impact Statement under NEPA

The stated purpose of NNSA’s *Supplement Analysis of the 2008 Complex Transformation Programmatic Environmental Impact Statement* is:

“... to allow NNSA to determine whether, prior to proceeding with the effort to produce plutonium pits at a rate of no fewer than 80 pits per year by 2030, the existing Complex Transformation SPEIS should be supplemented, a new environmental impact statement should be prepared, or no further *National Environmental Policy Act* (NEPA) analysis is required. The Draft SA [Supplement Analysis] preliminarily concludes that further NEPA documentation at a programmatic level is not required; however, NNSA will consider comments on this Draft SA and publish a Final SA.”³

However, to meet legal NEPA requirements NNSA must complete a new programmatic environmental impact statement (PEIS) on its nation-wide plans for expanded production of plutonium pits, the radioactive cores of nuclear weapons. Simply amending the Record of Decision for the 2008 Complex Transformation (CT) PEIS will not be sufficient to formally raise the level of production from the level of 20 pits per year at LANL sanctioned by the original 1996 Stockpile Stewardship and Management PEIS. This is because of numerous changed circumstances and much new information.

Further, a new PEIS is required because NNSA proposes simultaneous pit production at two sites, which the Complex Transformation PEIS never considered. NNSA’s new plan involves the production of at least 30 pits per year at the Los Alamos Lab and at least fifty pits per year at the Savannah River Site (SRS), which would be a completely new mission there. As previously explained to NNSA, this is inherently a “programmatically” decision, sufficient justification by itself for a new PEIS. See Attachment A (describing how the decision to produce plutonium pits at these two locations requires a programmatic analysis).

NNSA plans to establish pit production at SRS by “repurposing” the failed MOX Fuel Fabrication Facility (MFFF). To use the Department of Energy’s own NEPA regulatory

² *Natural Resources Defense Council v. Pena*, 20 F.Supp.2d 45, 50 (D.D.C. 1998), <https://law.justia.com/cases/federal/district-courts/FSupp2/20/45/2423390/>

³ *Supplement Analysis of its 2008 Complex Transformation Programmatic Environmental Impact Statement*, NNSA, June 2019, Executive Summary, <https://www.energy.gov/nepa/downloads/eis-0236-s4-sa-02-draft-supplement-analysis>

language, a new PEIS is required because the expansion of pit production at LANL and the repurposing of the MOX Facility at SRS are “systematic and connected agency decisions” that are clearly “connected,” “cumulative,” and “similar” actions, therefore “their environmental effects must be considered in a single impact statement.” See Attachment A. Accordingly, DOE’s own NEPA regulations require the preparation of a PEIS, as further explained below in an excerpt from Attachment A.

The draft SA misleadingly suggests that NNSA previously analyzed “a pit production facility that would use the Mixed-Oxide Fuel Fabrication Facility (MFFF) and Pit Disassembly and Conversion Facility (PDCF) infrastructure” in the Complex Transformation PEIS. This suggestion that no further programmatic analysis of producing plutonium pits at SRS using a repurposed MFFF is highly misleading and fundamentally misrepresents what the Complex Transformation PEIS actually considered.

In reality, the Complex Transformation PEIS only cursorily mentioned the prospect of using the MFFF infrastructure, and plainly did not consider any impacts associated with the profoundly changed circumstances surrounding the MFFF—namely, the fact that it was fraught with construction fraud and abandoned in a partially completed state. Moreover, this alternative considered only producing plutonium pits at *one* facility. The passing reference to the prospect of using some MFFF infrastructure in the Complex Transformation PEIS is in no way a substitute for the rigorous analysis that is now required for the fundamentally distinct proposal to produce plutonium pits at multiple locations and in facilities that have been fraught with safety problems or were never designed for these activities.

Excerpt from our May 17, 2019 Letter on the Need for a PEIS

As our May 17, 2019 letter explained, NEPA requires agencies to consider multiple actions together in a single Programmatic EIS when those “actions are ‘connected,’ ‘cumulative,’ or ‘similar,’ such that their environmental effects are best considered in a single impact statement.” *American Bird Conservancy*, 516 F.3d at 1032 (quoting 40 C.F.R. § 1508.25(a)). Here, the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility to produce plutonium pits at SRS plainly fall within the ambit of “connected,” “cumulative,” and “similar” actions within the meaning of NEPA, meaning that they must be considered together in a single programmatic EIS.

The expansion of plutonium pit production at LANL and the repurposing of the MOX Facility to produce plutonium pits at SRS are “connected” actions under NEPA. Connected actions “are closely related and therefore should be discussed in the same impact statement” because they “[a]re interdependent parts of a larger action and depend on the larger action for their justification.” 40 C.F.R. § 1508.25(a)(1). Both the proposed expansion of plutonium pit production at LANL and the repurposing of the incomplete MOX Facility to produce plutonium pits at SRS are interdependent parts of DOE and NNSA’s plan to fulfill the Trump Administration’s stated goal in its 2018 Nuclear Posture Review of producing at least 80 plutonium pits per year by 2030. See Dep’t of Defense, *Nuclear Posture Review*, at 64. Because the Administration cannot reach the Nuclear Posture Review goal without both proposed actions at LANL and SRS, and because both actions depend on the Nuclear Posture Review for their justification, these actions are “connected” under NEPA and must be considered together in a single EIS.

Likewise, both projects are “similar” because “when viewed with other reasonably foreseeable or proposed agency actions” both “have similarities that provide a basis for evaluating their environmental consequences together.” 40 C.F.R. § 1508.25(a)(3). These similarities are clear. To begin with, both projects involve producing plutonium pits for nuclear weapons. Moreover, both projects are being proposed in locations where the safety of producing plutonium pits is highly questionable at best as LANL suffers from serious and ongoing deficiencies in the management of nuclear safety issues, while the MOX Facility was never designed for fabrication of plutonium pits, is still incomplete, and was the subject of fraudulent construction practices that leave the state and safety of the building highly uncertain. Finally, because both projects entail processing highly hazardous nuclear materials in facilities with serious safety concerns, both projects are likely to have serious and similar nuclear safety issues and environmental impacts. Accordingly, both actions are “similar” under NEPA.

Furthermore, both actions also satisfy the definition of “cumulative” actions, because they will “have cumulatively significant impacts.” 40 C.F.R. § 1508.25(a)(2). A cumulative impact is “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.” *Id.* § 1508.7. Here, not only will the expansion of plutonium pit production at LANL and the repurposing of the incomplete MOX Facility to produce plutonium pits each have significant impacts in their own right, but each project will also likely have cumulative environmental impacts that should be taken into account in a single EIS. For example, because each site will be performing similar activities and working with similar materials, each site will likely generate wastes that DOE and NNSA will have to determine how to treat, store, or dispose of.

Accordingly, because the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility at SRS are clearly “connected,” “cumulative,” and “similar” actions, “their environmental effects are best considered in a single impact statement,” *American Bird Conservancy*, 516 F.3d at 1032, and a PEIS is the legally and practically appropriate way to accomplish this.

Not surprisingly, therefore, DOE’s own regulations require the production of a PEIS under these circumstances. DOE’s regulations mandate that “[w]hen required to support a DOE programmatic decision (40 CFR 1508.18(b)(3)), DOE shall prepare a programmatic EIS.” 10 C.F.R. § 1021.330(a). In turn, a “DOE programmatic decision” includes the “[a]doption of programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive.” 40 C.F.R. § 1508.18(b)(3). Here, both proposed actions at LANL and SRS are “systematic and connected agency decisions” undertaken to implement the specific “executive directive” in the 2018 Nuclear Posture Review to produce at least 80 plutonium pits per year by 2030. Accordingly, DOE’s regulations mandate the preparation of a PEIS.

– End of Excerpt -

Important New Information and Changed Circumstances Since the 2008 Complex Transformation Programmatic Environmental Impact Statement

While the following list is by no means all inclusive, Nuclear Watch asserts that the following issues must be considered in a new programmatic environmental impact statement on expanded plutonium pit production.

First, while the CT PEIS considered various levels of expanded plutonium pit production at five specific NNSA candidate sites, **it did not consider simultaneous production at two sites**. This changed circumstance alone requires a new programmatic environmental impact statement on expanded plutonium pit production because it radically changes the area and environmental impacts associated with plutonium pit production. For example, it logically increases the need for transportation of components or finished products and by creating two supply chains and waste streams instead of one.

The Institute for Defense Analysis Report: in May 2019 we obtained an unclassified executive summary of the Institute for Defense Analysis' critique on NNSA's plans for expanded plutonium pit production.⁴ It concluded:

“Summary of Main Findings

1. Eventually achieving a production rate of 80 ppy [pits per year] is possible for all options considered by the EA [expanded pit production Engineering Assessment], but will be extremely challenging.
2. *No available option can be expected to provide 80 ppy by 2030*. DoD should evaluate how to best respond to this requirement shortfall.
3. Trying to increase production at PF-4 [at LANL] by installing additional equipment and operating a second shift is *very high risk*.
4. *Effort to identify and address risks is underway, but is far from complete*.
5. Strategies identified by NNSA to shorten schedules will increase the risks of schedule slip, cost growth, and cancellation.” (Italicized emphasis added.)

In addition, the report stated:

“IDA examined past NNSA programs and could find no historical precedent to support starting initial operations (Critical Decision-4, or CD-4) by 2030, much less full rate production. Many similar projects (e.g., the Modern Pit Facility, Chemistry Metallurgy Research Replacement-Nuclear Facility, and Pit Disassembly and Conversion Facility) were eventually cancelled. Of the few major projects that were successfully completed, all experienced substantial cost growth and schedule slippage; we could find no successful historical major project that both cost more than \$700 million and achieved CD-4 in less than 16 years...”⁵

These damning conclusions by independent experts buttress the need for full programmatic review of NNSA's plans for expanded plutonium pit production. NNSA is planning to throw bad

⁴ Institute for Defense Analysis, March 2019, available at <https://nukewatch.org/newsite/wp-content/uploads/2019/07/IDA-ExecSum-UNC-March2019.pdf>

⁵ Ibid., p. vi.

money after bad money, wasting taxpayers' funds trying to achieve pit production goals at which it will most likely fail, at the MOX Fuel Fabrication Facility (MFFF), a facility that has already failed in its previous mission while wasting billions of taxpayer dollars.

Indeed, several findings from the IDA report strongly indicate why additional NEPA review is necessary in a new or supplemental PEIS—and, relatedly, why the draft SA is entirely insufficient. For example, the IDA report reveals that efforts to identify and address risks associated with the proposal to produce plutonium pits at LANL and SRS are underway, but far from complete. These risks include risks to the environment, as risks associated with the failure of any aspect of this mission will entail environmental impacts, such as the production of hazardous waste. The assessment of risks to the environment, and the evaluation of alternatives that may mitigate such risks, is precisely the purpose of NEPA. Because NNSA is still evaluating such risks and determining how to address them, it is premature and reckless for the draft SA to conclude that no further NEPA review is necessary for the expansion of pit production at LANL.

In fact, the IDA report provides a clear example of why this is the case: the IDA report shows that the expansion of production at PF-4 is extremely high risk. The draft SA is not candid about this point, despite the fact that one of NEPA's aims includes providing information about environmental hazards to ensure that decision-makers are properly taking such risks into account and that the public can meaningfully contribute to agency decisions through informed comment. The draft SA fails at this goal, providing another indication that a PEIS is necessary.

Given the strong unlikelihood of NNSA meeting its plutonium pit production goals by 2030, the agency should slow down and get the NEPA process right. Moreover, NEPA indisputably helps DOE make better decisions and conserve taxpayer dollars.⁶ A PEIS should be used to fully identify and begin to successfully address all program risks, including budget and schedule. Further, both the PEIS and the SRS-specific environmental impact statement should address the unlikelihood of NNSA's meeting its declared plutonium pit production schedule. Likewise, because the IDA report clearly reveals that any NNSA effort to meet a 2030 deadline will necessarily be a rush job, the PEIS (as well as any other NEPA document such as a final SA or an EIS for the SRS site) must address all risks associated with the hasty nature of the agency's proposed action.

Finally, before committing irretrievable resources to expanded plutonium pit production, a new programmatic environmental impact statement should address how the Department of Energy's Defense Programs (including NNSA nuclear weapons programs since 2000) have been on the Government Accountability Office's High Risk List for project mismanagement since its inception in 1992.⁷ While GAO acknowledges that NNSA has made some progress, the new

⁶ As one concrete example, the now-Executive Director of Nuclear Watch New Mexico commented on the lack of wildfire prevention in a draft 1999 LANL Site-Wide Environmental Impact Statement (SWEIS). In response, the final LANL SWEIS included a detailed hypothetical wildfire that became all too real a half year later during the Cerro Grande Fire. That hypothetical scenario aided Lab leadership in their decision to order evacuation of all but essential personnel. Mitigation provisions in the final LANL SWEIS included fire prevention measures that helped to keep the Cerro Grande Fire a half-mile away from above ground plutonium-contaminated transuranic wastes stored at the Lab's Area G, which could have been catastrophic had their drums ruptured due to high heat.

⁷ HIGH-RISK SERIES Substantial Efforts Needed to Achieve Greater Progress on High-Risk Areas, Government Accountability Office, March 2019, p. 33, <https://www.gao.gov/assets/700/697245.pdf>. Of

PEIS should address how NNSA plans to completely get off that list through the hard work of reforming its capital acquisition program and instituting rigorous contractor accountability. This is particularly true given that NNSA plans to repurpose the MOX Facility, which has already squandered billions of taxpayer dollars.

Draft Supplement Analysis of the Complex Transformation Supplemental PEIS

On June 28, 2019 NNSA published a Notice of Availability for a *Draft Supplement Analysis of the Complex Transformation Supplemental Programmatic Environmental Impact Statement* that the public can comment on. In the Draft Supplement Analysis (hereinafter “DSA”) NNSA stated:

“The purpose of this analysis is to determine, at a programmatic level: (1) if the potential impacts of the proposed action exceed those in the Complex Transformation SPEIS; and (2) if so, if the impacts would be considered significant in the context of NEPA (40 CFR 1508.27), which would require preparation of a supplement to the Complex Transformation SPEIS.”⁸

Nuclear Watch commends NNSA for offering the Draft SA for public comment. However, we believe that the purpose of the Supplement Analysis as described above by NNSA (i.e., “proposed action exceed[ing] those in the Complex Transformation SPEIS”) is improperly limited in scope. What the law instead requires is:

“(a) DOE **shall** prepare a supplemental EIS if there are substantial changes to the proposal or significant new circumstances or information relevant to environmental concerns, as discussed in 40 CFR 1502.9(c)(1).”⁹

In turn 40 CFR 1502.9(c)(1) mandates that:

“(c) Agencies:

- (1) **Shall** prepare supplements to either draft or final environmental impact statements if:
 - (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or
 - (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.”¹⁰

particular relevance is “Capacity: not met. In August 2018, a statutorily required internal review of NNSA’s capacity identified unmet critical staffing needs, especially staffing to manage and oversee work on the agency’s uranium and plutonium missions, which are expected to grow.” P. 217. This does not bode well given the MOX program debacle.

⁸ *Draft Supplement Analysis of the Complex Transformation Supplemental Programmatic Environmental Impact Statement*, DOE/EIS-0236-S4-SA-02 June 2019, p. 26, <https://www.energy.gov/sites/prod/files/2019/06/f64/draft-supplement-analysis-eis-0236-s4-sa-02-complex-transformation-06-2019.pdf>.

⁹ 10 CFR § 1021.314 - *Supplemental environmental impact statements*, DOE NEPA Implementing Regulations, <https://www.law.cornell.edu/cfr/text/10/1021.314> (bolded emphasis added)

¹⁰ 40 CFR § 1502.9 - *Draft, final, and supplemental statements*, Council on Environmental Quality, <https://www.law.cornell.edu/cfr/text/40/1502.9> (bolded emphasis added)

We believe that 10 CFR § 1021.314 and 40 CFR § 1502.9 apply to programmatic environmental impact statements as well, and that both conditions of “substantial changes in the proposed action” and “significant new circumstances or information relevant to environmental concerns” are more than sufficiently met. This is different from benchmarking the need to whether “the potential impacts of the proposed action exceed those in the Complex Transformation SPEIS.”

Therefore, we believe that the way that NNSA has framed the Supplement Analysis as a question of whether NNSA’s new plutonium pit production proposal exceeds the risk boundaries of the Complex Transformation PEIS is not compliant with the law, i.e. the National Environmental Policy Act. This further makes NNSA’s preliminary conclusion that a draft supplemental PEIS is not required grossly incorrect and legally deficient. In addition, as discussed below, the answer to whether the agency’s new proposal exceeds the risk boundaries of the Complex Transformation PEIS is plainly “yes.”

Nuclear Watch further asserts that because the Chemistry and Metallurgy Research Replacement Project (CMRR)-Nuclear Facility (NF) was not built, all analysis of pit production at LANL in the CT SPEIS is outdated and no longer has any current relevance. NNSA now proposes to cram all the operations previously planned for the CMRR-NF into the Lab’s newly constructed Radiological Laboratory Utility and Office Building (AKA “Rad Lab”) and nearly 50-years-old Plutonium Facility-4. Moreover, NNSA now proposes to use the MOX Fuel Fabrication Facility (MFFF), which was poorly built for a different mission and never completed.

“[T]o determine, at a programmatic level: (1) if the potential impacts of the proposed action exceed those in the Complex Transformation SPEIS” strongly implies that NNSA’s Supplement Analysis is an exercise in determining whether potential public risks are “bounded by” the analyses in the Complex Transformation PEIS. But “bounded by” is not an actual NEPA term. As DOE’s own literature states:

“Neither the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR Parts 1500-1508) nor the DOE NEPA regulations specifically address bounding analyses in NEPA documents... **bounding analyses should not be used where more accurate and detailed assessment is possible and would better serve the purposes of NEPA.**”¹¹

Therefore, it is improper that NNSA should hinge the outcome of this Supplement Analysis on the bounding analysis of the 11-year-old Complex Transformation PEIS.

Further, the 2008 CT SPEIS only analyzed generic hypothetical facilities for future plutonium pit production, i.e. the Consolidated Plutonium Center (CPC) and the Consolidated Nuclear Production Center (CNPC). Neither of these were built, while in contrast NNSA now proposes upgrades to and/or repurposing of specific existing facilities (i.e., LANL’s Rad Lab and PF-4 and SRS’s MFFF). A new PEIS should analyze those upgrades and repurposing of real (not hypothetical) facilities as “interconnected” actions whose “environmental effects are best considered in a single impact statement” because “more accurate and detailed assessment is

¹¹ *Mini-guidance Articles from Lessons Learned Quarterly Reports, December 1994 to September 2005*, p. 2-4, USDOE Office of NEPA Policy and Compliance, October 2005, <https://www.energy.gov/sites/prod/files/miniguide-20110511.pdf> Bolded emphasis added.

possible and would better serve the purposes of NEPA." We don't believe anything in NNSA's new proposal can be 'bounded' by the CT SPEIS.

Moreover, hinging the outcome of this SA on whether the boundaries of the CT SPEIS are exceeded or not hinders consideration of possible mitigation measures and leaves the relative differences in the impacts among the alternatives undiscernible. This too is contrary to stated DOE NEPA policy:

"Using Bounding Analyses in DOE NEPA Document

... DOE must ensure that the analysis is not so broad and all-encompassing as to mask the distinctions among alternatives, or to hinder consideration of mitigations... While the assumptions may be conservative and the impacts estimated may be substantially higher than those that would actually occur, the relative differences in the impacts among the alternatives should be discernible for the analysis to be useful in informing the choice among alternatives... **It is never appropriate to "bound" the environmental impacts of potential future actions (not yet proposed) and argue later that additional NEPA analysis is unnecessary because the impacts have been bounded by the original analysis.**"¹²

In effect, this is what NNSA is doing, using analysis of hypothetical facilities in the 2008 Complex Transformation PEIS to claim in 2019 that no additional NEPA analysis is needed for expanded plutonium pit production at real specific facilities. This does not comport with DOE NEPA policy that "more accurate and detailed assessment is possible and would better serve the purposes of NEPA."

Additionally, even presuming that the agency's bounding approach to the draft SA had any logical merit or legal validity (which it does not), the fact remains that the agency's new proposal does plainly exceed the risks analyzed in the Complex Transformation PEIS. For example, the Complex Transformation PEIS projected that operations at LANL would take place in a new facility, whereas the agency now proposes essentially indefinite reliance on an antiquated facility that is approaching the end of its design life and that has a well-documented history of serious safety and reliability problems. Accordingly, the agency's new proposal is substantially riskier than anything considered in the Complex Transformation PEIS.

Likewise, the fact that the agency now proposes to produce plutonium pits at *two* locations simultaneously plainly has risks that exceed any analysis in the Complex Transformation PEIS, which only considered producing pits at *one* location. For example, there are risks associated with transportation of components, products and waste, and with having two waste streams instead of one, that were never analyzed in the Complex Transformation PEIS. Accordingly, even if there was any merit to the agency's reliance on a bounding approach to the Supplement Analysis (which there is not), the risks associated with the agency's new proposal plainly do exceed anything previously considered.

¹² Ibid., <https://www.energy.gov/sites/prod/files/miniguide-20110511.pdf>. Bolded emphasis added.

The Proposed Configuration of NNSA Facilities for Future Plutonium Pit Production Has Substantially Changed

The first substantial change in the configuration of facilities that NNSA proposes to use for expanded plutonium pit production is obvious - - the repurposing of the MOX Fuel Fabrication Facility (MFFF) for plutonium pit production. NNSA apparently thinks that it can adequately meet its NEPA obligation to analyze the repurposing of the MFFF for pit production through the SRS-specific environmental impact statement (EIS) that it has already initiated. We contend that is not enough, again reiterating that 10 CFR § 1021.314 and 40 CFR § 1502.9 apply to programmatic environmental impact statements as well. We further contend that the very fact that a second site (SRS) is now involved some 1,500 miles from the existing plutonium pit production site (i.e., the Los Alamos Lab) inherently requires programmatic review. See NukeWatch scoping comments on the SRS EIS in Attachment B.

Indeed, the draft SA itself confirms that NNSA views this change as “significant” under NEPA. Again, NEPA’s implementing regulations—which are binding on all federal agencies, 40 C.F.R. § 1500.3—clearly state that “[a]gencies . . . shall prepare supplements to either draft or final environmental impact statements if . . . [t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns; or [t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” *Id.* § 1502.9(c). Here, NNSA’s own draft SA states that the “cancellation of the construction of the MFFF at SRS” is a “*significant change* that has occurred regarding plutonium disposition” since the Complex Transformation PEIS. Draft SA at 43. NNSA’s description of the MFFF cancellation as a “significant change” leaves no room to doubt that there has been a “substantial change” and a “significant new circumstance” within the meaning of NEPA’s implementing regulations.

Indeed, confirming the significance of this changed circumstance, NNSA likewise states that in light of the cancellation of the MFFF, “DOE has made no official decisions regarding how the surplus plutonium will be dispositioned.” *Id.* The fact that the cancellation of the MFFF has left NNSA and DOE with no coherent plan regarding this important issue is a clear indication of how significant the cancellation and proposed repurposing of this facility is within the meaning of the National Environmental Policy Act.

But the repurposing of the MFFF is not the only major facility change. The Chemistry and Metallurgy Research Replacement Project (CMRR)-Nuclear Facility at LANL was integral to all alternatives of plutonium pit production that the 2008 Complex Transformation SPEIS considered. However, the CMRR-NF was canceled in 2012 which resulted in an expanded mission and equipage of the Radiological Laboratory Utility and Office Building (AKA “Rad Lab”) and expanded upgrades to PF-4. We assert that this troika of proposed facility changes (i.e. MFFF repurposing, CMRR-NF cancellation and Rad Lab/PF-4 upgrades) plainly constitutes a significant changed circumstance as well as new information that demands programmatic review in a programmatic environmental impact statement.

The Drivers and the Requirement for Expanded Plutonium Pit Production Have Substantially Changed

The Draft Supplement Analysis states:

“Since 2008, NNSA has emphasized the need to eventually produce 80 pits per year; the joint DoD-DOE white paper entitled, *National Security and Nuclear Weapons in the 21st Century*, cataloged the need and justification for pit production rates. In the decade plus since this paper was published, the drivers and the requirement for pit production have remained relatively unchanged through several administrations and changes in congressional leadership.” D Supplement Analysis Ex. Summary.

Far from the drivers and the requirement for pit production remaining relatively unchanged as NNSA asserts, the main “drivers” have in fact radically changed in that they have been twice canceled. NNSA’s claim is then followed with only a vague justification that the third and latest “driver” that reputedly requires expanded pit production. Specifically, the 2008 DoD-DOE white paper *National Security and Nuclear Weapons in the 21st Century* stated that:

“[T]he Departments of Defense and Energy are pursuing an alternative to this strategy of indefinite life extension; namely, the gradual replacement of existing warheads with warheads of comparable capability that are less sensitive to manufacturing tolerances or to aging of materials. The generic concept is often referred to as the Reliable Replacement Warhead (RRW).”¹³

The white paper goes on to expressly link the need for expanded plutonium pit production to the Reliable Replacement Warhead (RRW). But in the same year Congress declined to fund RRW, thus cancelling the first rationale for expanded plutonium pit production.

Following that, NNSA claimed that the need for expanded pit production was justified by a future “Interoperable Warhead” which the agency described in congressionally-required annual Stockpile Stewardship and Management Plans as the centerpiece of its “3+2” plan to transform the nuclear weapons stockpile and its supporting research and production complex. But NNSA quietly canceled the Interoperable Warhead in an obscure December 2018 report, eliminating the second concrete justification for expanded pit production. In that same report NNSA offered a weak justification for future expanded pit production for the Interoperable Warhead’s proposed successor (the W87-1) by stating:

“This campaign to establish a national pit manufacturing capability at required capacity must happen even if the W87-1 program must, for some unplanned reason, deploy with a reused pit. If that were to be the case, then the pit manufacturing campaign would provide new pits for the LEP or replacement program that follows the W87-1.”¹⁴

¹³ *National Security and Nuclear Weapons in the 21st Century*, p.18,

<https://dod.defense.gov/Portals/1/Documents/pubs/nuclearweaponspolicy.pdf>

¹⁴ W78 Replacement Program (W87-1): Cost Estimates and Use of Insensitive High Explosives Report to Congress, NNSA, December 2018, p. 6, <https://nukewatch.org/newsite/wp-content/uploads/2019/03/W78-Replacement-Program-Cost-Estimates-IHE-1.pdf>

Our point is that NNSA does not specify what that next Life Extension Program or replacement program is, thus has yet to offer a concrete justification for expanded plutonium pit production that it estimates will cost \$43 billion in taxpayer funds over 30 years.¹⁵ Plainly, contrary to NNSA’s cursory claim that the “drivers” for pit production remain unchanged, the agency’s proposals for pit production and the justifications for pit production have shifted radically multiple times. In light of these profoundly changed circumstances, it is imperative that a supplemental PEIS clearly defines the specific need for expanded plutonium pit production.

The 2008 white paper *National Security and Nuclear Weapons in the 21st Century* also noted:

“Successive efforts at extending the service life of the current inventory of warheads will drive the warhead configurations further away from the original design baseline that was validated using underground nuclear test data. Repeated refurbishments will accrue technical changes that, over time, might inadvertently undermine reliability and performance.”¹⁶

This is echoed in NNSA’s FY 2020 Congressional Budget Request:

“The stockpile is inherently moving away from the Underground Test (UGT) database through aggregate influences of aging, modern manufacturing techniques, modern materials, and evolving design philosophies.”¹⁷

The Draft Supplement Analysis states that NNSA “is responsible for meeting the national security requirements established by the President and the Congress to maintain and enhance the safety, reliability, and performance of the United States nuclear weapons stockpile.” DSA Ex. Summary. A supplemental PEIS should analyze a curatorship-like Stockpile Stewardship Program that rigorously hews to the tested pedigree of the nuclear weapons stockpile, avoiding changes at every possible turn that could introduce uncertainties. This is very salient given that according to NNSA’s FY 2020 Congressional Budget Request future pits will not be exact replicas but instead will be “W87-like.” A supplemental PEIS should explain what that term means and explore to what extent any heavily modified pit designs could undermine confidence in safety and reliability, thereby possibly degrading national security and prompting a return to full-scale testing, which would have severe international proliferation consequences.

The Draft SA concludes that no further programmatic review is needed for the Pantex Plant as a supporting site for expanded plutonium pit production. DSA p. 21. This is incorrect as the Pantex Plant is the site for nonintrusive requalification leading to reuse of existing pits in NNSA’s Life Extension Programs. We contend that a supplemental PEIS is required to consider the extensive reuse of plutonium pits as a serious alternative to virgin pit production, an alternative that would be less expensive and less internationally provocative and environmentally damaging.

¹⁵ Plutonium Pit Production Engineering Assessment (EA) Results, NNSA, May 2018, slide 10 (add Alt 1 and 2c together), https://nukewatch.org/newsite/wp-content/uploads/2019/03/FINAL-Pu-Pit-Production-EA-Results-05.14.18_Unclassified.pdf

¹⁶ *National Security and Nuclear Weapons in the 21st Century*, p. 17, <https://dod.defense.gov/Portals/1/Documents/pubs/nuclearweaponspolicy.pdf>

¹⁷ NNSA FY 20 Congressional Budget Request, p. 158, <https://www.energy.gov/sites/prod/files/2019/04/f62/doe-fy2020-budget-volume-1.pdf>

To put this more strongly, the extensive reuse of existing plutonium pits should be the third alternative in a new programmatic environmental impact statement transcending the binary choice of expanded plutonium pit production and a No Action Alternative to not expand pit production (which the government is clearly biased against). It is a reasonable, credible alternative that would save taxpayers money and cause less environmental harm compared to expanded plutonium pit production.

Changes in Environmental Conditions, Operations, and NEPA Process

Under Changes in Environmental Conditions, Operations, and NEPA Process, the Draft SA states:

“While there are differences in the natural environment at both sites [LANL and SRS] since the Complex Transformation SPEIS was prepared, the differences are not significant in terms of analyzing changes in environmental impacts at a programmatic level.” DSA p. 23.

To begin with, the draft SA fails to provide sufficient details regarding the nature of the changed circumstances and any coherent justification for the NNSA’s claim that these differences are ostensibly “not significant.” Instead, the draft SA provides only a “high-level summary” of environmental conditions and punts on any detailed analysis, stating that “[i]f NNSA decides to implement the proposed action, site-specific documents would be prepared and would provide a detailed analysis of any changes in the environmental conditions at LANL and SRS, as appropriate.” *Id.*

This statement is effectively a concession of the draft SA’s inadequacy. NEPA requires agencies to fully analyze environmental circumstances and to assess the significance of any environmental conditions and impacts *before making a decision*. See, e.g., 40 C.F.R. § 1501.2 (“Agencies shall integrate the NEPA process with other planning *at the earliest possible time* to ensure that planning and decisions reflect environmental values.” (Emphasis added)). In flagrant contravention of this fundamental NEPA principle, NNSA instead proposes to make its decision first and then consider environmental circumstances afterwards. Because NNSA simply concludes based solely on a “high-level summary” of environmental conditions, which it concedes must be supplemented, the draft SA is plainly inadequate.

Moreover, the draft SA’s suggestion that changed environmental conditions are ostensibly “not significant” is plainly incorrect. Since the 2008 Complex Transformation PEIS LANL experienced the grave threat of another major wildfire, the 2011 Los Conchas Fire. After ignition, that crown fire raced 13 miles due east to the Lab’s western boundary in 24 hours. Given climate change, global warming and increased aridity in the Southwest, the incidences of wildfire at or near LANL will likely only increase.

Concerning operations at LANL, the Complex Transformation PEIS did not consider the track record of chronic nuclear safety infractions at PF-4, which ultimately led to the cessation of major plutonium operations for nearly four years. Indeed, the Draft SA claims that at both LANL and SRS “Potential impacts from some accidents, such as criticality accidents, would not change, as these accidents are not dependent on the number of pits produced.” DSA p. 30 and 35. That

categorical statement seems to defy simple logic. *See* Attachment A (describing the shutdown of LANL plutonium operations and an OIG report demonstrating that NNSA has failed to correct its deficient management of safety issues at LANL).

As the Defense Nuclear Facilities Safety Board (DNFSB) noted in its required 2018 annual report to Congress:

“Nuclear Criticality Safety at Los Alamos National Laboratory (LANL)—Based on an evaluation of the LANL nuclear criticality safety program, the Board in its November 28, 2018, letter to the Secretary of Energy, identified the following related to this vitally important safety program: (1) lack of concrete milestones in corrective action initiatives for weaknesses in the program; (2) inadequate staffing in the nuclear criticality safety division; (3) inadequate documentation for daily work activities with the potential to impact nuclear criticality safety; (4) instances of poor operational quality in implementing nuclear criticality safety requirements; and (5) repetitive, ineffective corrective actions for weaknesses in the program.”¹⁸

We contend that a supplemental PEIS is needed to analyze the occupational and public risks of repeated, chronic nuclear criticality safety incidences at LANL and how to resolve them. By extension this applies to any future pit production at SRS as well. We argue that a genuine, comprehensive nuclear safety regime needs to be instituted at a programmatic level that must be considered in programmatic environmental impact statement.

The Draft SA considers the Waste Isolation Pilot Plant (WIPP) as a supporting site for expanded plutonium pit production since production would increase transuranic waste disposal at WIPP. The DSA notes that available capacity has decreased since the time the Complex Transformation SPEIS was prepared but concludes that the impacts of increased pit production on TRU disposal at WIPP are not significant. DSA p. 21. However, this contention of insignificance is plainly premature and lacks any rational basis. Indeed, the draft SA also states that in light of the “significant change” of cancelling construction of the MFFF at SRS, NNSA is evaluating the possibility of instead disposing of surplus plutonium at WIPP. Draft SA at 43. Accordingly, the changes proposed at LANL and SRS plainly have an important impact on WIPP, and the fact that NNSA concedes that cancelling the MFFF is a “significant change” plainly reveals that the impact on the WIPP will be commensurately “significant.”

We contend that programmatic review is required to consider and analyze all the possible future competing demands on WIPP. These include future expanded pit production, 34 tons or more of existing “excess” plutonium and potential attempts by DOE to “reinterpret” or downgrade some high-level radioactive wastes, likely another topic of legal dispute in another forum. It should also be noted that the DSA’s claim of current remaining capacity of 108,048 cubic meters at WIPP could be reduced by 30% if the current challenge by citizen groups (including Nuclear Watch NM) to DOE’s recalculation of disposed TRU waste is successful. Finally, a new PEIS must guarantee that all future transuranic waste packaging and shipping will be safe, given that

¹⁸ Defense Nuclear Facilities Safety Board 29th Annual Report to Congress, April 2019, p. ii, <https://www.dnfsb.gov/sites/default/files/document/17791/2018%20Annual%20Report%20to%20Congress%20%5B2019-100-017%5D.pdf>

LANL sent an improperly prepared waste drum to WIPP that ruptured, exploded, and closed that facility for nearly three years, costing the American taxpayer some \$3 billion.

Under “Cumulative Impacts” the Draft SA concludes that “The potential cumulative transportation impacts [of the Yucca Mountain Repository] would be reduced from that presented in the Complex Transformation SPEIS.” Omitted from any consideration in the DSA is the current application submitted by the Holtec Corporation to the Nuclear Regulatory Commission for “Consolidated Interim Storage” in New Mexico of up to 170,000 metric tons of past and future spent nuclear fuel. The cumulative impacts of this proposal could substantially exceed that of Yucca Mountain since the requested total inventory is far greater than that proposed for Yucca Mountain. Moreover, the lethal spent nuclear fuel would have to be moved again once a permanent repository is ever completed. A supplemental PEIS should consider the cumulative impacts of proposed Consolidated Interim Storage of high level wastes.

Also, under “Cumulative Impacts” the DSA notes that there have been numerous changes to NNSA’s Plutonium Disposition Plan, including the cancellation of the MOX program and the repurposing of the MOX Fuel Fabrication Facility for plutonium pit production. As a consequence, LANL would likely be involved in oxidizing plutonium as part of the proposed “dilute and dispose” process to dispose of excess plutonium at WIPP. DSA p. 43. This however cries out for programmatic review at the highest level since that plutonium oxidizing can only take place at LANL’s PF-4, the already overcrowded facility slated to produce at least 30 pits per year, with a long track record of nuclear safety infractions. It is not clear that there is even enough floor space in PF-4 for oxidation of up to 2.5 tons of plutonium annually if expanded pit production is implemented, and reportedly preparations for expanded oxidizing is on hold until pit production requirements are better known. But this is the very reason why a programmatic environmental impact statement is required, to help sort out possible competing priorities between different programs.

DOE Is Systematically Degrading Safety

The long track record of chronic nuclear criticality incidences at LANL has become publicly known primarily through the reporting of the Defense Nuclear Facilities Safety Board (DNFSB). This has obvious relevance to any future plutonium pit production at SRS. In what is arguably an attempt to kill the messenger DOE has issued its Order 140.1 *Interface with the Defense Nuclear Facilities Safety Board* to replace its prior directive on interface with the Board, DOE Manual 140.1-1B. As the Board itself observed:

“...DOE Order 140.1, *Interface with the Defense Nuclear Facilities Safety Board*, issued in May 2018, threatens to undermine the Board’s ability to execute its statutory mission under the Atomic Energy Act. DOE Order 140.1 improperly attempts to diminish the Board’s statutory mandate in four principal ways, all of which are inconsistent with the text of the Atomic Energy Act:

- The Order contains a narrow definition of “Public Health and Safety,” which only includes individuals located outside of DOE site boundaries (i.e., excluding onsite individuals and workers);
- The Order provides exemptions allowing DOE and contractors to not provide access to facilities that DOE determines do not have the potential to adversely affect public health and safety, which could limit Board oversight at many defense nuclear facilities;

- The Order lacks a clear provision to provide the Board with ready access to such information, facilities, and personnel as the Board considers necessary to carry out its responsibilities; and
- The Order provides an allowance for DOE to deny Board requests for relevant deliberative and pre-decisional information.”¹⁹

The last point in particular strikes at the heart of potential risks that the public may be exposed to by plutonium pit production at the repurposed MOX Facility, especially in light of numerous allegations of improper and shoddy construction. The Safety Board is the only independent entity that can review and comment on NNSA facility planning before those plans are made final. The DOE attempt to bar the DNFSB from ostensibly “deliberative and pre-decisional information”—apparently designated as such unilaterally by DOE without any prospect for appeal or review—could directly lead to a facility repurposed for pit production lacking the safety provisions and requirements that would make the public safer.

DOE/NNSA’s degradation of safety even as it plans to ramp up plutonium pit production appears to be systematic. As the Safety Board notes:

“DOE has begun the process to revise 10 CFR Part 830, *Nuclear Safety Management*, which has served as the cornerstone of its regulatory framework to ensure adequate protection of public health and safety... Overall, the Board is concerned that the proposed revision to 10 CFR Part 830 will make it more difficult for the Department to exercise consistent oversight across the complex and loosens requirements upon which DOE and the public rely to ensure adequate protection of public health and safety. The Board identified concerns with DOE’s proposal to remove the requirement for DOE to annually review and approve changes to documented safety analyses. The Board found that DOE’s proposed change, if implemented, created a potential for the safety basis and facility operations to drift outside the envelope approved by DOE”²⁰

This is again directly relevant to the risks posed to the public by plutonium pit production at both LANL and SRS. LANL’s PF-4 has long had a bad track record of insufficient and /or outdated safety bases and the removal of the requirement to annually review and approve changes could directly threaten the public.

In short, a new PEIS is needed to fully review the risks posed by plutonium pit production to the public by apparent systemic attempts by DOE to degrade institutional safety and independent review of safety. That review should be incorporated into the SRS-specific EIS as well.

Alleged Construction Deficiencies at the MOX Fuel Fabrication Facility

There are numerous allegations over shoddy and potentially illegal activities related to the installation of various components in the MOX plant. These allegations pertain not only to the faulty HVAC system, which may have to be demolished in its entirety, but also to many other installations. If any part of the HVAC system is proposed for reuse there must then be full

¹⁹ Ibid., p. 2.

²⁰ Ibid., p. 29.

documentation that it meets nuclear quality control standards for both the components, including gaskets and hangers, and their installation.

A new PEIS must seriously analyze the as-built quality of the MOX Facility and demonstrate that it indeed can be “repurposed” for expanded plutonium pit production. The new PEIS must include a full review of MOX construction, inspections and certification of components. This includes the HVAC system and wall penetrations. The certification of components that may be considered for reuse in the repurposed MOX Fuel Fabrication Facility must be demonstrated to meet nuclear quality control requirements. The extent of problems with construction of the MOX Facility may well preclude its use for pit production.

All of this is underscored by the fact that the U.S. government has filed a false claims lawsuit against the MOX Facility contractor. As the Department of Justice announced:

“... the United States has filed suit against CB&I AREVA MOX Services LLC (MOX Services) and Wise Services Inc. under the False Claims Act and the Anti-Kickback Act in connection with a contract between MOX Services and the National Nuclear Security Administration relating to the design and operation of the MOX Fuel Fabrication Facility (MFFF) at the NNSA Savannah River Site in Aiken, South Carolina... “Government contractors who line their bank accounts by receiving kickbacks or submitting fraudulent claims undermine the public's trust in government programs and operations,” said Assistant Attorney General Jody Hunt of the Department of Justice’s Civil Division. “We will continue to vigorously pursue those who misuse taxpayer funds.”... “The Department of Energy Office of Inspector General remains committed to ensuring the integrity of the Department’s contractors and subcontractors,” said Teri L. Donaldson, Department of Energy Inspector General. “We take allegations of false claims, overbilling, and kickbacks very seriously and will aggressively investigate these matters to protect the Department and the American taxpayers.” ”²¹

DOE and NNSA should demonstrate that professed zeal for protecting the American taxpayer through full investigations into fraud, waste, abuse and mismanagement before repurposing the MOX Facility, and report on it in a new draft PEIS. Most importantly, the draft PEIS should objectively evaluate whether the MOX Fuel Fabrication Facility can realistically be repurposed for expanded plutonium pit production to begin with. This should precede the draft SRS environmental impact statement which should give still greater detail on facility impacts, waste streams, etc.

Seismic Concerns

We note how seismic concerns played a major role in causing massive cost overruns involving billions of taxpayer dollars and related complete redesigns of both the Chemistry and Metallurgy Research Replacement Project at the Los Alamos National Laboratory and the Uranium Processing Facility (UPF) at the Y-12 Site. A new PEIS should incorporate the freshest seismic data possible for expanded plutonium pit production at LANL, especially given that it is not clear

²¹ *United States Files False Claims Act Lawsuit in Connection With MOX Fuel Fabrication Facility Contract*, Department of Justice, February 14, 2019, <https://www.justice.gov/opa/pr/united-states-files-false-claims-act-lawsuit-connection-mox-fuel-fabrication-facility>

that PF-4 can ever be brought up to modern seismic codes. This is underscored by the fact that one of the main reasons that the CMRR-Nuclear Facility was ultimately cancelled was because of its dramatically increasing costs. This was largely due to the need to pour a concrete “base mat” to replace the unconsolidated volcanic sediments that underlie all of LANL’s Technical Area-55. Obviously, no such fix is possible for the aging PF-4—reinforcing the need for a new or supplemental PEIS to consider, among other issues, the safety and environmental risks associated with continuing to use this aging, vulnerable facility well beyond its intended design life.

Nuclear Watch urges the NNSA to avoid repeating these failures by fully incorporating seismic safety provisions into the repurposing of the MOX Fuel Fabrication Facility (MFFF) for plutonium pit production, as well as by analyzing seismic issues concerning ongoing operations at LANL. We think the Complex Transformation PEIS seismic assessment of SRS to be far too complacent, stating “The Atlantic Coastal Plain tectonic province in which SRS is located is characterized by generally low seismic activity that is expected to remain subdued (DOE 2004a).”²² That needs to be corrected in the draft SRS EIS.

In particular, we advise paying close attention to any SRS-related seismic concerns expressed by the Defense Nuclear Facilities Safety Board.²³ Further, NNSA should provide the Safety Board ready access to pre-decisional blueprints, data sheets, etc., relevant to repurposing MFFF, contrary to the apparent intent of DOE Order 140.1 (see our earlier comment section *DOE Is Systematically Degrading Safety*).

We note that the Savannah River Site is not immune from seismic concerns, as it is located some 100 miles from the site of the 1886 6.9–7.3 Mw Charleston, SC earthquake that had little or no preceding historic seismic activity. It was the most damaging earthquake ever to occur in the Southeastern United States and ranks among the most powerful ever in eastern North America. In Aiken County where SRS is located, chimney tops fell, millpond dams failed, and trains were derailed.

A 2014 US Geological Survey Seismic Hazard Map²⁴ shows that South Carolina is among the sixteen states that have the highest risk for experiencing earthquakes. Since the mid-1980s, there have been no fewer than eleven earthquakes whose epicenters were on the Savannah River Site. Two had a magnitude of 2.6, the highest recorded, occurring in 1985 and 2001. From October 2001 to March 2002, there were eight earthquakes.²⁵ Moreover, there was a magnitude 4.1 earthquake near SRS on Valentine’s Day, 2014.²⁶

²² October 2008 Final Complex Transformation SPEIS, Chapter 4, Affected Environment 4.8.6.3 Seismology, p. 4-353.

²³ Although dated, see for example <https://ehss.energy.gov/deprep/1992-2/tr92d03a.pdf> questioning SRS’ seismic modeling.

²⁴ Seismic Hazard Maps and Site-Specific Data, USGS, <https://earthquake.usgs.gov/hazards/hazmaps/>

²⁵ This seismic information is from *Savannah River Site monitors activity Quake shakes Aiken County*, Dede Biles, September 18, 2014, https://www.aikenstandard.com/news/savannah-river-site-monitors-activity-quake-shakes-aiken-county/article_e15ca9b8-2aa7-57e0-8d67-baf84abd66a5.html

²⁶ <http://www.dnr.sc.gov/geology/RecentEarthquakes.htm>

In short, a new PEIS should fully analyze seismic concerns and possible mitigation strategies to lower public risks from future expanded plutonium pit production. The DNFSB has postulated high doses to the public in the event that “PF-4” at LANL was seriously damaged by a seismic event. These risks, and similar risks at SRS, should be fully explored in the new PEIS.

Wildfire Risks

The risk of wildfires will likely increase with climate change and global warming. We note the risks posed by recent wildfires at the Idaho National Laboratory and the Hanford nuclear reservation in Washington State. In April-May 2000 and June 2011 very dangerous crown fires threatened the Los Alamos National Laboratory (indeed the Lab and townsite were fully evacuated except for essential personnel during the 2000 Cerro Grande Fire). In November 2018 the Woolsey Fire nearly completely burned the Santa Susanna Field Laboratory, causing deep public mistrust over resulting airborne contaminants.

Whereas the wildfire risks at LANL are all too apparent, the Savannah River Site is not immune from those risks, especially given climate change and global warming. A new PEIS should programmatically examine the risks that wildfire pose to expanded plutonium pit production. Further, Nuclear Watch stresses the point that NEPA helps DOE and NNSA make better decisions, even during extreme wildfire emergencies. As previously noted in these comments, the now-Executive Director of Nuclear Watch New Mexico commented on the lack of wildfire prevention in a draft 1999 LANL Site-Wide Environmental Impact Statement (SWEIS). In response, the final LANL SWEIS included a detailed hypothetical wildfire that became all too real a half year later during the Cerro Grande Fire. That hypothetical scenario aided Lab leadership in their decision to order evacuation of all but essential personnel. Mitigation provisions in the final LANL SWEIS included fire prevention measures that helped to keep the Cerro Grande Fire a half-mile away from above ground plutonium-contaminated transuranic wastes stored at the Lab’s Area G, which could have been catastrophic had their drums ruptured due to high heat.

Miscellaneous

A new PEIS is needed to fully consider potential Intentional Destructive Acts scenarios, including both internal sabotage and terror events.

A new PEIS is needed to analyze the impacts of diverting taxpayer dollars to new nuclear weapons facilities instead of cleaning up the massive environmental damage caused by past research and production. What are the long-term public health and environmental effects of leaving radioactive and chemical contaminants that can pollute precious water resources, while new, unnecessary, and costly nuclear facilities that will produce more contaminants are being built?

A new PEIS must be completely free of predetermination. NNSA must concretely demonstrate that it can pursue an impartial process without predetermination that leads to an objective decision to repurpose the MFFF or not.

What are the risks of establishing plutonium pit production at SRS, which will be a completely new mission there? Will staff be adequately trained? Will SRS avoid the chronic nuclear safety

infractions that have plagued the Los Alamos Lab, which has 70 years of experience in pit production?

A new PEIS is needed to analyze all future radioactive and chemical waste streams and their disposal. The State of South Carolina has been in a long struggle with the Department of Energy to not become the nation's *de facto* dumping ground for excess plutonium. Indeed, DOE recently faced litigation and controversy due to its secretive shipment of plutonium from South Carolina to Nevada.²⁷ The prospect of future such shipments and any associated environmental impacts must be analyzed in a new PEIS. How will expanded pit production add to the unwanted inventory of plutonium that is already at SRS? How might that further strain the relationship between NNSA and the state of South Carolina?

Given a new escalating nuclear arms race and the pending demise of all international arms control, a new PEIS is needed to examine the possible adverse proliferation consequences of expanded plutonium pit production. This includes the negative example that it will pose to other countries and possible impacts on the NonProliferation Treaty (which the U.S. signed in 1970 but has never honored its mandate to enter into serious negotiations leading to global nuclear disarmament). Further, since NNSA does not plan to produce exact replicas of existing pits (instead they will be "W87-like"²⁸), a new PEIS should analyze how heavily modified pit designs could undermine confidence in stockpile safety and reliability, thereby possibly degrading national security and prompting a return to full-scale testing. That would have very serious global proliferation consequences.

The public comment period for a new PEIS should be at least 120 days.

The 1998 Court Order Requiring a Supplemental PEIS

In addition to the clear need for a PEIS under NEPA and its implementing regulations, DOE is currently subject to a court order that mandates the preparation of a PEIS under the current circumstances. That order establishes the following requirement:

Prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability for a capacity in excess of the level that has been analyzed in the SSM PEIS (the capacity analyzed in the SSM PEIS is the fabrication at LANL of 50 pits per year under routine conditions, and 80 pits per year under multiple shift operations), DOE shall prepare and circulate a Supplemental PEIS, in accordance with DOE NEPA regulation 10 C.F.R. § 1021.314, analyzing the reasonably foreseeable environmental impacts of and alternatives to operating such an enhanced capacity, and issue a Record of Decision based thereon.²⁹

²⁷ E.g., <https://www.seattletimes.com/business/doe-secretly-shipped-plutonium-from-south-carolina-to-nevada/>

²⁸ See NNSA FY 2020 Congressional Budget Request, beginning page 122 with numerous other references, <https://www.energy.gov/sites/prod/files/2019/04/f62/doe-fy2020-budget-volume-1.pdf>

²⁹ *Natural Resources Defense Council v. Pena*, 20 F.Supp.2d 45, 50 (D.D.C. 1998), <https://law.justia.com/cases/federal/district-courts/FSupp2/20/45/2423390/>

Because DOE and NNSA are currently devoting resources to designing a pit production capability of *at least* 80 pits per year, including a plan to produce pits at SRS, this order clearly requires the agencies to undertake a Supplemental PEIS.

In contrast, NNSA's June 2019 *Draft Supplement Analysis of the Complex Transformation Supplemental Programmatic Environmental Impact Statement* concludes:

“Therefore, as Head of Defense Programs and pursuant to NNSA’s Administrative Procedure and DOE’s National Environmental Policy Act Implementing Procedures (10 CFR 1021.314(c)), I have preliminarily determined that no further NEPA documentation is required at a programmatic level, and NNSA may amend the existing Complex Transformation SPEIS ROD.” DSA p. 48.

We believe NNSA’s preliminary determination to not prepare a supplemental PEIS is legally insufficient under NEPA because of all the reasons stated above. Additionally, NNSA cannot evade the clear requirement of this court order. First, it is indisputable that NNSA is planning on producing more than 80 pits per year.³⁰ Second, we believe this requirement pre-empts NNSA apparent plan to avoid a supplemental PEIS by amending the Record of Decision (ROD) for the 2008 Complex Transformation PEIS. This is because the court order clearly refers to the 1996 Stockpile Stewardship and Management PEIS, whose Record of Decision relocated the plutonium pit production mission to LANL while explicitly limiting it to no more than 20 pits per year.³¹

NNSA Must Begin the PEIS Now

Until NNSA fully complies with NEPA through the preparation of a programmatic environmental impact statement on expanded plutonium pit production, Nuclear Watch believes that any irreversible or irretrievable commitment of resources to either the expansion of pit production at LANL or to the repurposing of the MOX Facility at SRS is unlawful. Accordingly, to properly address all of the issues mentioned above, Nuclear Watch New Mexico insists that 1) NNSA begin the required PEIS right away for the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility for plutonium pit production at SRS, and 2) suspends the SRS-specific environmental impact statement process until that PEIS is completed.

- End of Comments -

³⁰ See for example the May 10, 2018 *Joint Statement from Ellen M. Lord and Lisa E. Gordon-Hagerty on Recapitalization of Plutonium Pit Production* that first announced expansion of pit production, to wit: “This two-prong approach – with **at least** 50 pits per year produced at Savannah River and **at least** 30 pits per year at Los Alamos – is the best way to manage the cost, schedule, and risk of such a vital undertaking.” (Bolded emphasis added.) <https://www.energy.gov/nnsa/articles/joint-statement-ellen-m-lord-and-lisa-e-gordon-hagerty-recapitalization-plutonium-pit>

³¹ Although the court order uses the phrase “at LANL,” there can be no legitimate dispute that the NNSA’s proposed action plainly exceeds the terms described in the court order. The plan to produce at least 80 pits at multiple sites is plainly different and has greater impacts than producing up to at most 80 pits solely at LANL.

These comments on NNSA's draft Supplement Analysis respectfully submitted,

Jay Coghlan
Executive Director

Scott Kovac
Research Director

Attachment A

***The need to prepare a Programmatic Environmental Impact Statement
in connection with plans to expand plutonium pit production at the
Los Alamos National Laboratory and the Savannah River Site***

**Nickolas Lawton, MGE, LLP and Geoffrey Fettus, NRDC
to DOE Secretary and NNSA Administrator
May 17, 2019**

<https://nukewatch.org/newsite/wp-content/uploads/2019/05/Summary-Pit-Production.pdf>

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May 17, 2019

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VIA ELECTRONIC MAIL

Re: The need to prepare a Programmatic Environmental Impact Statement in connection with plans to expand plutonium pit production at the Los Alamos National Laboratory in New Mexico and the Savannah River Site in South Carolina.

On behalf of the public interest organizations Nuclear Watch New Mexico, Savannah River Site Watch, the Natural Resources Defense Council, and Tri-Valley Communities Against a Radioactive Environment (collectively “the Nuclear Safety Organizations”), we are writing to notify the Department of Energy (“DOE”) and the National Nuclear Security Administration (“NNSA”) of the need to prepare a Programmatic Environmental Impact Statement (“PEIS”) in connection with the agencies’ stated plan to expand the production of plutonium pits for nuclear weapons at the Los Alamos National Laboratory (“LANL”) in New Mexico and the Savannah River Site (“SRS”) in South Carolina. Because the National Environmental Policy Act (“NEPA”) mandates that “[a]gencies shall integrate the NEPA process with other planning *at the earliest possible time* to ensure that planning and decisions reflect environmental values,” 40 C.F.R. § 1501.2 (emphasis added), DOE and NNSA must begin the preparation of a PEIS now.

EXECUTIVE SUMMARY

The Trump Administration’s 2018 Nuclear Posture Review called for the expanded production of nuclear weapons for the first time in many years, and specifically called for production of 80 plutonium pits (the cores of nuclear weapons) per year by 2030. To that end,



the Department of Energy (“DOE”) and the National Nuclear Security Administration (“NNSA”) plan to expand production of plutonium pits at the Los Alamos National Laboratory in New Mexico and to repurpose an incomplete facility at the Savannah River Site in South Carolina. At Los Alamos, this plan will require roughly tripling plutonium pit production in facilities with nuclear safety deficiencies so severe that DOE suspended all nuclear weapons production there for over four years, and which DOE recently found have not been adequately resolved. At the Savannah River Site, this plan will require repurposing a facility that was never designed for plutonium pit production, that is still incomplete, and that has been subject to construction-related fraud. Both aspects of DOE and NNSA’s plan to expand plutonium pit production entail serious risks for the environment and public safety. Additionally, these plans will cost at least \$9 billion over the next ten years and at least \$42 billion over the project’s duration.

The National Environmental Policy Act (“NEPA”) requires federal agencies to take a hard look at proposed actions before committing to a course of action or making any irreversible or irretrievable commitment of resources. NEPA requires agencies to publicly disclose environmental impacts, involve the public in agency decision-making, and to seriously consider all viable alternatives to a proposed action. Thus, agencies must prepare an Environmental Impact Statement (“EIS”) for any action that may have significant environmental impacts. Where agency actions are closely related, they must be considered together in a single Programmatic EIS (“PEIS”).

DOE and NNSA have stated that it is their intention to meet the Trump Administration’s goal of producing 80 plutonium pits per year by 2030 through the expansion of pit production at Los Alamos and the Savannah River Site. Because the agencies’ previous environmental analysis for activities at Los Alamos is badly outdated and does not properly consider the serious and ongoing safety issues that led to a four-year shutdown in nuclear weapons production there, NEPA requires a hard look at the proposed expansion of plutonium pit production at that site through a new or supplemental EIS. Likewise, because the agencies have not prepared any environmental analysis for the proposal to produce plutonium pits at an incomplete facility at SRS that has been subject to construction fraud, NEPA requires the production of an EIS for this activity as well. And because the proposed actions at LANL and SRS are inextricably related aspects of DOE and NNSA’s plan to meet the Trump Administration’s call for expanded nuclear weapon production, DOE and NNSA must prepare a PEIS to consider these proposed actions together. However, the agencies instead appear to be shirking NEPA’s requirements by undertaking activities at LANL and SRS without first preparing the legally required environmental analysis. To come into compliance with NEPA, DOE and NNSA must begin the required PEIS process now.

DISCUSSION

I. NEPA.

NEPA is the “basic national charter for protection of the environment.” 40 C.F.R. § 1500.1. NEPA’s “national policy” is to “encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment . . . [and] enrich the understanding of the ecological systems and natural resources

important to the nation . . .” 42 U.S.C. § 4321. To guard against environmental damage, Congress required all federal agencies to prepare a “detailed statement” for each “major federal action significantly affecting the quality of the human environment” that includes “the environmental impact of the proposed action” as well as a thorough consideration of alternatives to the proposed action. *Id.* § 4332(c).

In light of NEPA’s mandates, the Supreme Court has reasoned that NEPA is “intended to reduce or eliminate environmental damage and to promote ‘the understanding of the ecological systems and natural resources important to’ the United States.” *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 756 (2004) (quoting 42 U.S.C. § 4321).

To achieve NEPA’s goals, federal agencies must prepare an EIS for any major federal action with significant environmental effects. 42 U.S.C. § 4332(c). NEPA’s procedures are designed to inject environmental considerations “in the agency decision making process itself,” and to “help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.” *Pub. Citizen*, 541 U.S. at 768-69 (quoting 40 C.F.R. § 1500.1(c)). Therefore, “NEPA’s core focus [is] on improving agency decisionmaking,” *Pub. Citizen*, 541 U.S. at 769 n.2, and specifically on ensuring that agencies take a “hard look” at potential environmental impacts and alternatives “as part of the agency’s process of deciding whether to pursue a particular federal action,” *Balt. Gas and Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 100 (1983).

Importantly, the NEPA process “shall serve as the means of assessing the environmental impact of proposed agency actions, *rather than justifying decisions already made.*” 40 C.F.R. § 1502.2(g) (emphasis added); *see also id.* § 1502.5 (requiring that NEPA review “shall be prepared early enough *so that it can serve practically as an important contribution to the decision making process and will not be used to rationalize or justify decisions already made*”) (emphasis added).

An agency must prepare an EIS for every “major Federal action significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(c). Under NEPA’s implementing regulations, “significance” requires consideration of both context and intensity. 40 C.F.R. § 1508.27. “Context” considerations include the affected region, interests, and locality, varying with the setting of the action, and include both short and long-term effects. *Id.* § 1508.27(a). “Intensity” refers to the severity of impact, including: impacts that may be both beneficial and adverse; unique characteristics of the geographic area, such as proximity to wetlands, wild and scenic rivers, or ecologically critical areas; the degree to which the effects on the quality of the human environment are likely to be highly controversial; the degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration; whether the action is related to other actions with individually insignificant but cumulatively significant impacts; the degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act; and whether the action threatens a violation of federal law imposed for the protection of the environment. *See* 40 C.F.R. § 1508.27(b).

Under NEPA, to determine the proper scope of an EIS an agency “shall consider 3 types of actions,” including connected actions, cumulative actions, and similar actions. *Id.* § 1508.25. Connected actions include those that “are closely related and therefore should be discussed in the same impact statement” because they “[a]re interdependent parts of a larger action and depend on the larger action for their justification.” *Id.* § 1508.25(a)(1). Cumulative actions are those that “with other proposed actions have cumulatively significant impacts.” *Id.* 1508.25(a)(2). And similar actions “when viewed with other reasonably foreseeable or proposed agency actions have similarities that provide a basis for evaluating their environmental consequences together.” *Id.* § 1508.25(a)(3). An agency should analyze similar actions together “when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.” *Id.* In such circumstances, a Programmatic Environmental Impact Statement is necessary where “actions are ‘connected,’ ‘cumulative,’ or ‘similar,’ such that their environmental effects are best considered in a single impact statement.” *American Bird Conservancy v. Federal Communication Commission*, 516 F.3d 1027, 1032 (D.C. Cir. 2008) (quoting 40 C.F.R. § 1508.25(a)).

II. DOE and NNSA’s Plans for Expanded Plutonium Pit Production

In 2018, the Trump Administration issued a Nuclear Posture Review that, for the first time in many years, called for expanding production of nuclear weapons. *See* U.S. Dep’t of Defense, *Nuclear Posture Review*, February 2018, at 1–2.¹ Despite the fact that “[f]or decades, the United States led the world in efforts to reduce the role and number of nuclear weapons,” *id.* at 1, the 2018 Nuclear Posture Review reversed this strategy by calling for “a flexible, tailored nuclear deterrent strategy,” an apparent euphemism for the development of new nuclear weapons, *id.* at 2; *see also id.* at 63 (noting that the U.S. “has not executed a new nuclear weapon program for decades” and calling for “research and development” and “technology maturation” in order “to design and develop nuclear weapons”); *id.* at 52 (depicting a proposed increase in the nuclear weapons budget to levels not seen since the Cold War).

To support the Trump Administration’s call for new nuclear weapons, the Nuclear Posture Review announced the need to “[p]rovide the enduring capability and capacity to produce plutonium pits at a rate of no fewer than 80 pits per year by 2030.” *Id.* at 64. The Review further stated that in order to increase production of plutonium pits, which are the core of nuclear weapons, “significant and sustained investments will be required over the coming decade.” *Id.* Indeed, the Congressional Budget Office (“CBO”) has estimated that DOE’s plan to “produce at least 80 plutonium pits per year by 2030” will cost “about \$9 billion from 2019 to 2028.” CBO, *Projected Costs of U.S. Nuclear Forces*, January 2019, at 5.² Furthermore, NNSA recently estimated that repurposing the MOX Facility at SRS for plutonium pit production will have a “lifecycle cost” of \$27.8 billion, while expanding pit production at LANL will cost between \$14.3 billion and \$18.8 billion—meaning that over the next decades this plan will likely

¹ The 2018 Nuclear Posture Review is available online at <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>

² This CBO report is available at <https://www.cbo.gov/system/files/2019-01/54914-NuclearForces.pdf>

cost taxpayers at least \$42 billion. NNSA, *Plutonium Pit Production Engineering Assessment (EA) Results*, May 2018, at 10.³

Producing plutonium pits “entails extensive processing of very hazardous materials, which typically requires a specialized facility.” CBO, *Projected Costs of U.S. Nuclear Forces*, at 8 n.13. Plutonium pit production in the United States was performed on a large scale at the Rocky Flats Plant in Colorado until 1989, when an FBI raid investigating safety and environmental violations led to the closure of that facility. See Congressional Research Service, *U.S. Nuclear Weapon “Pit” Production Options for Congress*, February 2014, at 18.⁴ DOE has declined to attempt to restart operations at Rocky Flats and has instead undertaken a “Sisyphean history” of “failed efforts to construct a building to restore pit production.” *Id.* “The United States has not had the capacity to make more than about 10 [pits per year] since 1989.” *Id.*

Currently, the United States has the capacity to produce a very limited number of plutonium pits only at the Los Alamos National Laboratory in New Mexico, a facility with a history of serious safety problems. See DOE Office of Enterprise Assessments, *Assessment of the Management of Nuclear Safety Issues at the Los Alamos National Laboratory*, April 2019, at 1.⁵ Indeed, DOE has recognized “significant weaknesses (i.e. non-compliances with significant impact)” in LANL’s management of nuclear safety issues “over the past eleven years.” *Id.* at 2. These “significant weaknesses . . . have allowed identified problems to go uncorrected, problem recurrences to be routinely accepted, and corrective actions to often be delayed for years.” *Id.* at v. These problems led to the production of plutonium pits at LANL being shut down “for over four years.” *Id.* Moreover, DOE has recognized that despite changing the contractor responsible for managing these issues, LANL has made “only limited improvement in addressing longstanding weaknesses” and that many of these safety issues “persist, which can lead to the degradation of nuclear safety.” *Id.* Nevertheless, the Trump Administration’s plan is not only to produce plutonium pits at LANL, but to do so at a rate that has not been seen for decades. See DOE, *Final Report for the Plutonium Pit Production Analysis of Alternatives*, October 2017 at 1 (noting that DOE plans to produce 30 pits per year at LANL, but that it produced only 10 pits per year “in the early 2000s” and that no pits have been produced at LANL since 2012).⁶ DOE has acknowledged that its plan to accelerate pit production at LANL has a “high risk level,” may cause “significant unmitigated off-site consequences,” and that “[r]easonable mitigation strategies” are “unavailable.” DOE, *Engineering Assessment Report, Pu Pit Production Engineering Assessment*, April 2018, at 4-9.⁷

³ This NNSA Report is available at https://nukewatch.org/newsite/wp-content/uploads/2019/03/FINAL-Pu-Pit-Production-EA-Results-05.14.18_Unclassified.pdf

⁴ This Report is available at <https://fas.org/sgp/crs/nuke/R43406.pdf>

⁵ This DOE Report is available at <https://www.energy.gov/ea/downloads/assessment-management-nuclear-safety-issues-los-alamos-national-laboratory-april-2019>

⁶ A redacted version of this DOE Report is available at http://www.lasg.org/MPF2/documents/NNSA_PuPitAoA_Oct2017_redacted.pdf

⁷ A redacted version of this DOE Report is available at https://nukewatch.org/newsite/wp-content/uploads/2019/03/Pu-Pit-Engineering-Assessment-Report-Rev-2_20-April-2018.pdf

Because DOE does not believe that it is possible for LANL to produce plutonium pits at the rate the Trump Administration has proposed, *id.*, DOE and NNSA have also proposed to produce plutonium pits at an as-yet-incomplete Mixed Oxide Fuel Fabrication Facility (“the MOX Facility”) at the Savannah River Site in South Carolina. However, the MOX Facility was never designed for that purpose, *id.*, and has proven to be a multi-billion dollar boondoggle.⁸

Since 1991, the SRS mission has revolved principally around the storage or disposal of radioactive material, in particular plutonium from dismantled nuclear weapons. *See* Complaint, *United States of America v. CB&I AREVA MOX Services, LLC*, No. 1:19-cv-00444, ECF No. 1, at 8. In 1999, NNSA entered into a contract for the construction of the MOX Facility at SRS “to convert surplus nuclear weapons-grade plutonium into safe, stable fuel for civilian nuclear power generation.” *Id.* Construction began on the MOX Facility in 2007. *See* Government Accountability Office, *MOX Fuel Fabrication Facility: Briefings in Response to a Mandate in the National Defense Authorization Act for Fiscal Year 2017* (“GAO MOX Report”), November 2017, at 1.⁹ However, the MOX Facility project soon ran into dramatic delays and cost overruns. *See id.* (noting that cost estimates rose from \$3.4 billion to \$17.2 billion between 2007 and 2016). After spending at least \$3.4 billion on the MOX facility, *id.*, DOE has recently abandoned any intention to complete the MOX Facility. In November 2017, the Government Accountability Office found that despite DOE spending billions of dollars on the MOX Facility, it was at that time only roughly 30 percent complete. *Id.* at 4.¹⁰

In addition to stopping work on the MOX Facility after sinking billions of dollars into it, DOE has also recently revealed that the MOX Facility’s construction was subject to extensive fraud. Indeed, the government recently brought a False Claims Act case against the MOX Facility contractor and subcontractor, alleging that the contractors defrauded NNSA out of “millions of dollars” by submitting “fraudulent claims, supported by forged and fraudulent invoices, for construction related materials that did not exist.” *See* Complaint, *United States of America v. CB&I AREVA MOX Services, LLC*, No. 1:19-cv-00444, ECF No. 1, at 1–2. As such, after spending billions of taxpayer dollars, DOE now has a 30-percent-complete facility plagued by fraudulent construction practices.

Now, DOE and NNSA are considering converting the incomplete MOX Facility into a site for the production of the majority of the plutonium pits that the Trump Administration has stated are necessary. Indeed, of the 80 pits per year that DOE and NNSA say they must produce

⁸ *See, e.g.*, https://www.aikenstandard.com/news/nnsa-delivered-mox-termination-notice-this-week-construction-expected-to/article_b907332c-ce40-11e8-b971-ebc9931647b9.html (noting that the MOX Facility was “initially expected to come online in 2016 at a cost of \$4.8 billion” but that “the project’s timeline and price tag have seriously bloated” and reporting the termination of the over-budget project).

⁹ This GAO Report is available at <https://www.gao.gov/assets/690/688369.pdf>

¹⁰ DOE issued a stop work order on May 14, 2018. The State of South Carolina sought to enjoin this decision, reasoning that DOE’s intention to instead pursue a dilute-and-dispose approach to plutonium disposal violated NEPA, among other defects, but the Fourth Circuit rejected the State’s arguments. *See State of South Carolina v. United States*, No. 18-1684, ECF No. 42 (4th Cir. Jan 8, 2019).

by 2030, 50 pits would be produced at the MOX Facility. See NNSA, *Engineering Assessment Report: Pu Pit Production Engineering Assessment*, April 2018, at xi.¹¹ DOE has acknowledged the significant risks of this plan. See DOE, *Analysis of Alternatives*, at 1 (noting the “qualitative risk of reconfiguring a partially completed facility for a new mission in a new location”).

Notably, DOE and NNSA are treating the 80 pits per year as a minimum figure, meaning that the agencies would require the ability to produce more than 30 pits per year at LANL and more than 50 pits per year at SRS. See NNSA, *Pu Pit Production Engineering Assessment*, at 1-2 (“Plutonium pit production capability will be able to produce a minimum of 80 [pits per year] by 2030.” (emphasis added)); see also NNSA, *Final Report for the Plutonium Pit Production Analysis of Alternatives*, October 2017, at 1 (“The pit production requirement is an annual ‘at least’ production rate”).

Troublingly, DOE and NNSA appear to be shirking their duties under NEPA. The agencies previously acknowledged in October 2017 that any approach to meeting the Trump Administration’s goal of producing at least 80 plutonium pits per year would “require an environmental impact statement.” *Id.* at 57; see also *id.* at 60 (“all alternatives are assumed to require a full EIS”); *id.* at 65 (“All alternatives will likely require an EIS”). However, in April 2018 the NNSA stated that “only a NEPA review is required” for the conversion of the MOX Facility to plutonium pit production, without acknowledging that an EIS is clearly required for such a significant action. NNSA, *Pu Pit Production Engineering Assessment*, at 4-6. And DOE and NNSA have not acknowledged the need to prepare a Programmatic EIS to consider the entirety of the agencies’ proposed approach to meeting the Trump Administration’s expanded plutonium pit production goals. This approach flouts NEPA’s purposes and explicit requirements.

III. Analysis.

A. Repurposing the MOX Facility to Produce Plutonium Pits Requires an EIS.

NEPA requires the preparation of an EIS for any “major federal action significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(c). To determine whether impacts are significant, agencies must consider a project’s “context” and “intensity,” which is evaluated according to ten factors, 40 C.F.R. § 1508.27, any one of which may necessitate an EIS. *Ocean Advocates v. U.S. Army Corps of Eng’rs*, 402 F.3d 846, 865 (9th Cir. 2005).

To begin with, DOE’s plan to repurpose the incomplete MOX facility to produce plutonium pits is a new proposed action that has never previously been analyzed in any NEPA process. Although DOE and NNSA have prepared previous PEISs for earlier plans regarding nuclear weapons fabrication (described further below), no previous NEPA analysis has considered producing nuclear weapon components using the MOX Facility.

¹¹ This NNSA Engineering Assessment is available at https://www.lasg.org/MPF2/documents/NNSA_PuPitEA_Rev2_20April2018-redacted.pdf

Moreover, DOE and NNSA’s plan to repurpose the incomplete MOX facility plainly will have significant environmental impacts and thus requires an EIS. Beginning with the context, this plan will entail spending billions of taxpayer dollars over many years to conduct highly hazardous fabrication of plutonium pits at an incomplete facility that was never designed for this purpose. Because this plan, which bears directly on the nation’s national security interests, entails significant risks to the surrounding environment and local communities, consideration of this project’s context plainly indicates that the plan is “significant” within the meaning of NEPA. *See* 40 C.F.R. § 1508.27(a) (requiring consideration of “contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality”). Moreover, the plan to repurpose the MOX Facility to produce plutonium pits plainly implicates many of the significance criteria in NEPA’s implementing regulations, any one of which may necessitate an EIS. *See Ocean Advocates*, 402 F.3d at 865.

First, this plan may affect public health or safety, 40 C.F.R. § 1508.27(b)(2), both because the processing of plutonium for nuclear weapons “entails extensive processing of very hazardous materials,” CBO, *Projected Costs of U.S. Nuclear Forces*, January 2019, at 8 n.13, and because the fact that the MOX Facility was never designed for the production of nuclear weapon components raises very important questions about whether such activities may be undertaken safely at this Facility. *See, e.g.*, NNSA, *Pu Pit Engineering Assessment*, at 2-39 (“The significant number of samples required to support a 50 ppy plutonium pit mission . . . could increase the material at risk . . . above the current safety basis limits”). Likewise, because the release of radiological or hazardous materials from the Savannah River Site could spread for many miles, the impacts on the neighboring populations could be dire. *See, e.g.*, DOE, *Final Complex Transformation Supplemental Programmatic Environmental Impact Statement*, at 4-374 (acknowledging that members of the public within a 50-mile radius of SRS could be affected by radiation on the site).

Second, this plan may affect “[u]nique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.” 40 C.F.R. § 1508.27(b)(3). For example, DOE’s own description of the Savannah River Site notes that it includes “hundreds of individual wetland areas.” DOE, *Facts from the Savannah River Site*, at 2.¹² Indeed, “[s]ome SRS surface waters are classified as . . . unique and irreplaceable on a national or eco-regional basis.” DOE, *Final Complex Transformation Supplemental Programmatic Environmental Impact Statement*, at 4-356. Likewise, the portions of the Savannah River Site managed by the U.S. Forest Service includes “65,000 acres” of habitat for the endangered red-cockaded woodpecker, indicating that this is an ecologically critical area. U.S. Forest Service, *Savannah River Fast Facts*.¹³

Third, this plan would be “highly controversial,” 40 C.F.R. § 1508.27(b)(4), and would be “highly uncertain or involve unique or unknown risks,” *id.* § 1508.27(b)(5). To begin with, the extent of work that it would take to repurpose the incomplete MOX Facility remains profoundly unclear, in part because there is a dispute about the status of the construction so far.

¹² This DOE Fact Sheet is available at https://www.srs.gov/general/news/factsheets/srs_overview.pdf

¹³ This Fact Sheet is available at <https://www.srs.gov/general/news/factsheets/usfs-sr.pdf>

Thus, the GAO found that the MOX Facility is “about 30 percent complete,” while the contractor insisted that it was 74 percent complete. GAO, *MOX Report*, at 4. Meanwhile, as noted above, the United States has recently sued the MOX Facility contractor under the False Claims Act for falsifying reports on what construction activities were actually undertaken. Under these circumstances, the plan to repurpose the MOX Facility to produce nuclear weapons is both “highly controversial” and “highly uncertain” within the meaning of NEPA’s implementing regulations. As Senator Lindsay Graham stated regarding repurposing the MOX Facility, “I have no confidence you got a plan. I think you’re making this up as you go.” Senate Appropriations Committee, Energy and Water Development Subcommittee Hearing on the Proposed NNSA Budget, April 5, 2019.

Fourth, this action “may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.” 40 C.F.R. § 1508.27(b)(8). Indeed, the counties in which the Savannah River Site is located contain numerous areas listed on the National Register of Historic Places.¹⁴ Likewise, the nearby city of Augusta, Georgia also contains numerous areas listed on the National Register of Historic Places.¹⁵ Because a release of radiological or otherwise hazardous materials from the Savannah River Site could spread for many miles, the impacts to historic places within the area that could be affected by a catastrophic accident at a repurposed MOX Facility must be considered in an EIS. *See, e.g., DOE, Final Complex Transformation Supplemental Programmatic Environmental Impact Statement*, at 4-374 (acknowledging that members of the public within a 50-mile radius of SRS could be affected by radiation on the site).¹⁶

Finally, the proposed repurposing of the MOX Facility to produce plutonium pits “may adversely affect an endangered or threatened species or its habitat that has been determined to be critical.” 40 C.F.R. § 1508.27(b)(9). SRS and the surrounding area provide habitat for numerous endangered species, including the red-cockaded woodpecker, the wood stork, the shortnose sturgeon, and several species of plants. *See, DOE, Final Complex Transformation Supplemental Programmatic Environmental Impact Statement*, at 4-356–57 (listing endangered species near SRS). A release of radiological or hazardous contaminants from a repurposed MOX Facility could have severe adverse impacts on these listed species.¹⁷

Accordingly, contrary to NNSA’s statement that “only a NEPA review is required” for the conversion of the MOX Facility to plutonium pit production. NNSA, *Pu Pit Production Engineering Assessment*, at 4-6, there can be no legitimate dispute that an EIS is necessary.

¹⁴ See <http://www.nationalregister.sc.gov/aiken/nraiken.htm> (listing historic sites in Aiken County); <http://www.nationalregister.sc.gov/barnwell/nrbarnwell.htm> (listing historic sites in Barnwell County); <http://www.nationalregister.sc.gov/allendale/nrallendale.htm> (listing historic sites in Allendale County).

¹⁵ See <https://nationalregisterofhistoricplaces.com/ga/richmond/state.html> (listing historic sites in Augusta).

¹⁶ Likewise, DOE and NNSA must undertake an analysis of impacts to historic places pursuant to the National Historic Preservation Act, which agencies typically conduct in parallel with NEPA.

¹⁷ Likewise, for this reason DOE and NNSA must undertake formal consultation with the United States Fish and Wildlife Service pursuant to section 7(a)(2) of the Endangered Species Act.

B. Expansion of Plutonium Pit Production at LANL Requires a Supplemental EIS.

Where “[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,” an agency must prepare a Supplemental EIS (“SEIS”). 40 C.F.R. § 1502.9(c)(1)(ii); 10 C.F.R. § 1021.314(a). Whether new information is sufficiently significant to necessitate an SEIS “turns on the value of the new information.” *Marsh*, 490 U.S. at 374. Where “new information is sufficient to show that the remaining action will affect the quality of the human environment in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared.” *Id.* New information that “raise[s] substantial questions regarding the project’s impact [is] enough to require further analysis.” *League of Wilderness Defenders v. Connaughton*, 752 F.3d 755, 760 (9th Cir. 2014) (quoting *Klamath Siskiyou Wildlands Ctr. v. Boody*, 468 F.3d 549, 561–62 (9th Cir. 2006)).

DOE and NNSA appear to be moving forward with a plan to produce 30 plutonium pits per year at LANL without preparing any NEPA analysis that considers new information and changed circumstances since the agencies undertook their *Final Complex Transformation Supplemental Programmatic Environmental Impact Statement* in 2008. However, because important new information has come to light regarding the highly questionable safety of producing plutonium pits at LANL, the preparation of an SEIS is clearly necessary.

As NNSA has recognized, “LANL is currently authorized to produce only 20 pits per year.” NNSA, *Supplement Analysis of the 2008 Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory*, April 2018, at Appendix B-3. This is because DOE and NNSA issued a governing Record of Decision in 2009 that authorizes production of pits “to not exceed 20 pits per year.” *Id.* at 46. And although NNSA has asserted that it previously evaluated the production of 80 pits per year in 2008, *id.*, the agency’s prior analysis did not—and could not—take into account information and changed circumstances that arose after 2008.

As DOE’s own Office of Enterprise Assessments found in 2019, the management of nuclear safety issues at LANL has been sorely lacking for many years and is not significantly improving. For example, “significant weaknesses” in the management of nuclear safety issues “have allowed identified problems to go uncorrected, problem recurrences to be routinely accepted, and corrective actions to often be delayed for years.” DOE, *Assessment of the Management of Nuclear Safety Issues at the Los Alamos National Laboratory*, at v. These “significant weaknesses” can “allow layers of defense for nuclear safety to degrade to the extent they did leading to the pause in June 2013 of key fissile material operations in the Plutonium Facility at LANL for over four years.” *Id.*

Indeed, in 2013 the director of the LANL laboratory “paused all fissile material operations in the Plutonium Facility . . . due to systemic and recurring weaknesses in the . . . criticality safety program and conduct of operations.” *Id.* at 2. Moreover, “[d]ue to the scope and significance of these weaknesses that had been allowed to develop, the mitigation . . . took over four years to be completed for some of the key fissile material operations.” *Id.*

DOE found that LANL suffers from serious and ongoing problems in management of nuclear safety issues. In particular, DOE has found that “insufficient attention is given to ensuring timely and effective correction of nuclear safety issues.” *Id.* at 15. Likewise, “84% of the high-significance . . . issues did not have an extent-of-condition review to identify potential recurring or systemic issues”; “55% of the high-significance issues that involved nuclear safety analyses” never received documentation of their causes; and “approximately 46% of 196 high-significance issues had been closed without addressing the underlying cause of the event, and 96% of those issues lacked effectiveness evaluations.” *Id.* at 2. “Numerous examples” of insufficient management of nuclear safety issues “revealed practices that allowed nuclear safety issues to be lost, closed by transfer to unrelated issues, closed with promises of future action, *or intentionally closed without taking any corrective action.*” *Id.* at 18 (emphasis added).

And critically, DOE has found that LANL has shown “only limited improvement in addressing longstanding weaknesses” in the management of nuclear safety issues. *Id.* at iv. Ongoing “deficiencies in [issues management] metrics and assessments have allowed poor [issues management] practices to persist.” *Id.* at 9. Indeed, DOE found that “significant weaknesses” in the management of nuclear safety issues “at LANL persist, which can lead to the degradation of nuclear safety.” *Id.* at iv.

The editorial board of the Albuquerque Journal recently found that this “is a huge issue considering the lab is ramping up production on the devices that act as nuclear bomb triggers.” The editorial board stated that “[f]alling short of the bare minimum in the eyes of the DOE is a far cry from where the public expects or needs LANL to be.” It further emphasized that “[t]op brass must take the audit’s criticisms seriously and demonstrate above-and-beyond efforts” and “make safety the lab’s top mission.”¹⁸

Although NNSA prepared a Supplement Analysis (“SA”) for the ongoing operation of LANL in April 2018, which concluded that no SEIS was necessary, its discussion of the pertinent nuclear safety issues is wholly inadequate. The SA asserts that “DOE has taken actions to address the criticality safety concerns,” and that “[f]ull operations, including pit manufacturing, resumed . . . in August 2016.” NNSA, *Supplement Analysis of the 2008 Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory*, at 96. However, since NNSA issued that Supplement Analysis, DOE’s own Office of Enterprise Assessments has found that the deficiencies in the management of nuclear safety issues that led to the four-year shutdown at LANL are, in fact, continuing. *See supra*. Indeed, by finding that improving the management of nuclear safety issues “will be key to safely supporting increased production rates of plutonium pits through 2030,” DOE, *Assessment of the Management of Nuclear Safety Issues at the Los Alamos National Laboratory*, at v, DOE itself has revealed that the increased production of plutonium pits at LANL cannot currently be undertaken safely.

Against this backdrop of highly unreliable management of nuclear safety risks, DOE and NNSA’s counterintuitive plan to not only continue, but expand, the production of plutonium pits at LANL cannot lawfully be undertaken in the absence of an SEIS. Indeed, NNSA cannot

¹⁸ See <https://www.abqjournal.com/1316264/lanl-leaders-must-make-safety-the-labs-top-mission.html>

credibly claim to have taken any serious look under NEPA at these ongoing nuclear safety issues, because NNSA's last Supplement Analysis was issued in 2018, while DOE's findings of ongoing nuclear safety management deficiencies were issued in 2019. More critically, because NNSA's efforts to improve the management of nuclear safety issues at LANL have clearly not worked, as DOE's own analysis has found, the agencies must take the hard look that NEPA requires at these ongoing deficiencies in nuclear safety management, and at the impacts of, and alternatives to, the proposal to expand plutonium pit production. Under these circumstances, a new or supplemental EIS is clearly necessary.

C. A Programmatic EIS is Necessary to Consider These Plainly Related Activities.

As explained, NEPA requires agencies to consider multiple actions together in a single Programmatic EIS when those "actions are 'connected,' 'cumulative,' or 'similar,' such that their environmental effects are best considered in a single impact statement." *American Bird Conservancy*, 516 F.3d at 1032 (quoting 40 C.F.R. § 1508.25(a)). Here, the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility to produce plutonium pits at SRS plainly fall within the ambit of "connected," "cumulative," and "similar" actions within the meaning of NEPA, meaning that they must be considered together in a single programmatic EIS.

The expansion of plutonium pit production at LANL and the repurposing of the MOX Facility to produce plutonium pits at SRS are "connected" actions under NEPA. Connected actions "are closely related and therefore should be discussed in the same impact statement" because they "[a]re interdependent parts of a larger action and depend on the larger action for their justification." 40 C.F.R. § 1508.25(a)(1). Both the proposed expansion of plutonium pit production at LANL and the repurposing of the incomplete MOX Facility to produce plutonium pits at SRS are interdependent parts of DOE and NNSA's plan to fulfill the Trump Administration's stated goal in its 2018 Nuclear Posture Review of producing at least 80 plutonium pits per year by 2030. *See* Dep't of Defense, *Nuclear Posture Review*, at 64. Because the Administration cannot reach the Nuclear Posture Review goal without both proposed actions at LANL and SRS, and because both actions depend on the Nuclear Posture Review for their justification, these actions are "connected" under NEPA and must be considered together in a single EIS.

Likewise, both projects are "similar" because "when viewed with other reasonably foreseeable or proposed agency actions" both "have similarities that provide a basis for evaluating their environmental consequences together." 40 C.F.R. § 1508.25(a)(3). These similarities are clear. To begin with, both projects involve producing plutonium pits for nuclear weapons. Moreover, both projects are being proposed in locations where the safety of producing plutonium pits is highly questionable at best: as described above, LANL suffers from serious and ongoing deficiencies in the management of nuclear safety issues, while the MOX Facility was never designed for fabrication of plutonium pits, is still incomplete, and was the subject of fraudulent construction practices that leave the state and safety of the building highly uncertain. Finally, because both projects entail processing highly hazardous nuclear materials in facilities

with serious safety concerns, both projects are likely to have serious and similar nuclear safety issues and environmental impacts. Accordingly, both actions are “similar” under NEPA.

Furthermore, both actions also satisfy the definition of “cumulative” actions, because they will “have cumulatively significant impacts.” 40 C.F.R. § 1508.25(a)(2). A cumulative impact is “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.” *Id.* § 1508.7. Here, not only will the expansion of plutonium pit production at LANL and the repurposing of the incomplete MOX Facility to produce plutonium pits each have significant impacts in their own right, but each project will also likely have cumulative environmental impacts that should be taken into account in a single EIS. For example, because each site will be performing similar activities and working with similar materials, each site will likely generate wastes that DOE and NNSA will have to determine how to treat, store, or dispose of.

Accordingly, because the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility at SRS are clearly “connected,” “cumulative,” and “similar” actions, “their environmental effects are best considered in a single impact statement,” *American Bird Conservancy*, 516 F.3d at 1032, and a PEIS is the legally and practically appropriate way to accomplish this.

Not surprisingly, therefore, DOE’s own regulations require the production of a PEIS under these circumstances. DOE’s regulations mandate that “[w]hen required to support a DOE programmatic decision (40 CFR 1508.18(b)(3)), DOE shall prepare a programmatic EIS.” 10 C.F.R. § 1021.330(a). In turn, a “DOE programmatic decision” includes the “[a]doption of programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive.” 40 C.F.R. § 1508.18(b)(3). Here, both proposed actions at LANL and SRS are “systematic and connected agency decisions” undertaken to implement the specific “executive directive” in the 2018 Nuclear Posture Review to produce at least 80 plutonium pits per year by 2030. Accordingly, DOE’s regulations mandate the preparation of a PEIS.

In addition to the need for a PEIS being clear under NEPA and its implementing regulations, DOE is currently subject to a court order in a case brought by two of the signatories to this letter that mandates the preparation of a PEIS under the current circumstances. That order establishes the following requirement:

Prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability for a capacity in excess of the level that has been analyzed in the SSM PEIS (the capacity analyzed in the SSM PEIS is the fabrication at LANL of 50 pits per year under routine conditions, and 80 pits per year under multiple shift operations), DOE shall prepare and circulate a Supplemental PEIS, in accordance with DOE NEPA regulation 10 C.F.R. § 1021.314, analyzing the reasonably foreseeable environmental impacts of and alternatives to operating such an enhanced capacity, and issue a Record of Decision based thereon.

Natural Resources Defense Council v. Pena, 20 F.Supp.2d 45, 50 (D.D.C. 1998). Because DOE and NNSA are currently devoting resources to designing a pit production capability of *at least* 80 pits per year, including a plan to produce pits at SRS, this order clearly requires the agencies to undertake a Supplemental PEIS.

Indeed, in analogous circumstances, DOE and NNSA have undertaken PEISs in the past. For example, in 1996, DOE undertook a *Stockpile Stewardship and Management PEIS* to consider relocating pit production to LANL. Likewise, in 2003, DOE undertook (but never finalized) a *Modern Pit Facility Supplemental PEIS* to analyze a possible increase in the rate of plutonium pit production. Similarly, in 2006, DOE undertook a *Complex 2030 Supplemental PEIS* to consider the modernization of the U.S. nuclear weapons program. And most recently, in 2008, the agencies undertook a *Complex Transformation Supplemental PEIS* in order to analyze alternatives for the modernization of the U.S. nuclear weapons program. Because both the agencies' plans and circumstances at both LANL and SRS have changed significantly since that time—including the new plan to radically increase the level of plutonium pit production, the demonstrated and ongoing serious safety issues at LANL, and the dubious proposition to repurpose the incomplete MOX Facility at SRS—the agencies must undertake a new or supplemental PEIS now as well.

D. DOE and NNSA Must Begin the NEPA Process Now.

Because NEPA mandates that “[a]gencies shall integrate the NEPA process with other planning *at the earliest possible time*,” 40 C.F.R. § 1501.2 (emphasis added), DOE and NNSA must begin the preparation of a PEIS now. DOE and NNSA have already begun the process for deciding how to move forward with the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility at SRS, and the agencies must begin preparing a PEIS now “to ensure that planning and decisions reflect environmental values.” *Id.*¹⁹

DOE and NNSA have undertaken significant steps toward the expansion of plutonium pit production at LANL and toward the repurposing of the MOX Facility. For example, DOE has sought and obtained the concurrence of the Nuclear Weapons Council regarding the proposed actions.²⁰ Moreover, DOE and NNSA have already used an undisclosed amount of taxpayer funds to direct its contractor to undertake design and planning for the repurposing of the incomplete MOX Facility to produce plutonium pits.²¹ Although it is not entirely clear how

¹⁹ On October 31, 2018, the Nuclear Safety Organizations sent NNSA a similar letter explaining the need for a PEIS and requesting a response within 30 days. NNSA has not responded.

²⁰ See <https://dod.defense.gov/News/News-Releases/News-Release-View/Article/1518222/joint-statement-from-ellen-m-lord-and-lisa-e-gordon-hagerty-on-recapitalization/>

²¹ See https://www.aikenstandard.com/news/srns-tasked-with-initial-work-for-savannah-river-pit-production/article_e3f15ab0-15ec-11e9-805c-d36536fe2d31.html

much money is already being spent on this effort at SRS, DOE has requested that Congress allocate \$410 million toward design and planning for the repurposing of the MOX Facility.²²

Likewise, Lisa Gordon-Hagerty, the Administrator of NNSA has testified to the House Subcommittee on Energy and Water Development that “NNSA is investing in the Savannah River Plutonium Processing Facility,” and that “LANL is actively installing pit production equipment and has begun hiring to meet future work scope.” Testimony Statement of Lisa Gordon-Hagerty before House Subcommittee on Energy and Water Development, April 2, 2019 (“Gordon-Hagerty Testimony”), at 5–6. Ms. Gordon-Hagerty also testified that “[r]epurposing the [MOX] Facility and producing plutonium pits at SRS and LANL is the preferred path,” and that “[t]he time to move forward is now.” *Id.* at 5. Similarly, Peter Fanta, a deputy assistant secretary of defense for nuclear matters, stated that “[t]here is one plan,” and that NNSA must “[s]top discussing it, stop slowing it, stop looking at it again, stop looking at seven other alternatives.” See <https://www.exchangemonitor.com/dod-still-satisfied-nnsa-pit-plan-warns-civilian-agency-margin/>.

However, taking a hard look at the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility at SRS, and considering alternatives to this proposed plan, is precisely what NEPA requires. And because NEPA mandates that agencies undertake the NEPA process as early as possible in order to promote informed decision-making, DOE and NNSA must undertake a PEIS as soon as possible.

Until DOE and NNSA fully comply with NEPA through the preparation of a PEIS, any irreversible or irretrievable commitment of resources to either the expansion of pit production at LANL or to the repurposing of the MOX Facility at SRS is unlawful. Accordingly, we request that DOE and NNSA respond to this letter within 30 days to explain when the agencies intend to undertake the required PEIS for the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility for plutonium pit production at SRS.

Sincerely,

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CC: Sen. Lamar Alexander, Chair, Senate Energy and Water Appropriations Subcommittee
Sen. Dianne Feinstein, Ranking Member, Senate Energy and Water Appropriations Subcomm.
Sen. Tom Udall, Senate Energy and Water Appropriations Subcommittee
Sen. Deb Fischer, Chair, Strategic Forces Subcommittee, Senate Armed Services Committee
Sen. Martin Heinrich, Ranking Member, Strategic Forces Subcommittee, SASC

²² DOE, *FY 2020 Congressional Budget Request*, March 2019, at 121–22, available at <https://www.energy.gov/sites/prod/files/2019/04/f62/doe-fy2020-budget-volume-1.pdf>

Sen. Lindsay Graham, South Carolina
Rep. Adam Smith, Chair, House Armed Services Committee
Rep. Mac Thornberry, Ranking Member, House Armed Services Committee
Rep. Jim Cooper, Chairman, Strategic Forces Subcommittee, House Armed Services Committee
Rep. Deb Haaland, House Armed Services Committee
Rep. Xochitl Torres Small, House Armed Services Committee
Rep. John Garamendi, House Armed Services Committee
Rep. Ben Ray Lujan, NM-3
Mr. Bruce Diamond, NNSA Office of the General Counsel
Mr. Charles Verdon, NNSA Deputy Administrator for Defense Programs
Mr. Brian Costner, DOE NEPA Office
Ms. Nicole Nelson-Jean, Manager, NNSA Savannah River Field Office
Mr. Steve Goodrun, NNSA Los Alamos Office

Attachment B

***Scoping comments for the NNSA's draft
environmental impact statement for plutonium pit production at the
Savannah River Site***

**Jay Coghlan and Scott Kovac
Nuclear Watch New Mexico
July 25, 2019**

https://nukewatch.org/newsite/wp-content/uploads/2019/07/NukeWatch_NM_SRS_EIS_Scoping_Comments-7-25-19.pdf



Ms. Jennifer Nelson
NEPA Document Manager
NNSA Savannah River Site Field Office
P.O. Box A
Aiken, SC 29802

July 25, 2019

By email to: NEPA-SRS@srs.gov

Re: Scoping comments for the National Nuclear Security Administration's (NNSA's) draft environmental impact statement for plutonium pit production at the Savannah River Site

Dear SRS EIS NEPA Document Manager,

Nuclear Watch New Mexico is pleased to submit these scoping comments on the *National Nuclear Security Administration's (NNSA's) draft environmental impact statement for plutonium pit production at the Savannah River Site*.

The Need for a Programmatic Environmental Impact Statement

This is our first and primary concern, that NNSA must first complete a programmatic environmental impact statement (PEIS) on its nation-wide plans for plutonium pit production, in advance of the Savannah River Site-specific environmental impact statement. To get right to the point, we argue that the SRS EIS process should go no further than this scoping period and should resume only after a completed formal Record of Decision for a new or supplemental PEIS.

Because the National Environmental Policy Act ("NEPA") mandates that "[a]gencies shall integrate the NEPA process with other planning *at the earliest possible time* to ensure that planning and decisions reflect environmental values," 40 C.F.R. § 1501.2 (emphasis added), DOE and NNSA must begin the preparation of a PEIS now. We believe that simply amending the Record of Decision (ROD) for the Complex Transformation (CT) PEIS, as NNSA clearly plans to do, will not be sufficient to formally raise the agency's desired level of production from the currently sanctioned level of 20 pits per year to more than 80. We argue this because of:

- 1) The staleness of the CT PEIS given that it is now more than 19 years old;
- 2) More significantly, numerous changed circumstances and much more new information since the 2008 CT PEIS; and
- 3) Outside of NEPA, an existing 1998 court order that requires DOE to prepare a supplemental PEIS when it begins to consider producing more than 50 pits per year under routine conditions or more than 80 with multiple shifts.

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For the record, we enclose our previous remarks and outline of National Environmental Policy Act requirements from our May 17, 2019 letter addressed to the NNSA Administrator, signed by Attorneys Nick Lawton of Meyer Glitzenstein & Eubanks LLP and Geoff Fettus of the Natural Resources Defense Council, representing the public interest groups NRDC, Nuclear Watch New Mexico, Tri-Valley CAREs and SRS Watch. Nuclear Watch is pleased that NNSA has correctly decided to prepare the relevant environmental impact statement for repurposing the MOX Fuel Fabrication Facility (MFFF) for plutonium pit production at the Savannah River Site (SRS). However, we believe that action is backwards, as NNSA must first prepare a PEIS from which the SRS-specific EIS is tiered. To further add to our argument, that PEIS is required under NEPA because:

- 1) It is needed to raise the plutonium pit production level from the 20 pits per year sanctioned by the 1996 Stockpile Stewardship and Management PEIS to 80 or more; and
- 2) A second site (SRS) is now proposed for simultaneous production, which is inherently a “programmatically” decision.

Excerpt from our May 17, 2019 Letter on the Need for a PEIS

As our May 17, 2019 letter explained, NEPA requires agencies to consider multiple actions together in a single Programmatic EIS when those “actions are ‘connected,’ ‘cumulative,’ or ‘similar,’ such that their environmental effects are best considered in a single impact statement.” *American Bird Conservancy*, 516 F.3d at 1032 (quoting 40 C.F.R. § 1508.25(a)). Here, the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility to produce plutonium pits at SRS plainly fall within the ambit of “connected,” “cumulative,” and “similar” actions within the meaning of NEPA, meaning that they must be considered together in a single programmatic EIS.

The expansion of plutonium pit production at LANL and the repurposing of the MOX Facility to produce plutonium pits at SRS are “connected” actions under NEPA. Connected actions “are closely related and therefore should be discussed in the same impact statement” because they “[a]re interdependent parts of a larger action and depend on the larger action for their justification.” 40 C.F.R. § 1508.25(a)(1). Both the proposed expansion of plutonium pit production at LANL and the repurposing of the incomplete MOX Facility to produce plutonium pits at SRS are interdependent parts of DOE and NNSA’s plan to fulfill the Trump Administration’s stated goal in its 2018 Nuclear Posture Review of producing at least 80 plutonium pits per year by 2030. *See* Dep’t of Defense, *Nuclear Posture Review*, at 64. Because the Administration cannot reach the Nuclear Posture Review goal without both proposed actions at LANL and SRS, and because both actions depend on the Nuclear Posture Review for their justification, these actions are “connected” under NEPA and must be considered together in a single EIS.

Likewise, both projects are “similar” because “when viewed with other reasonably foreseeable or proposed agency actions” both “have similarities that provide a basis for evaluating their environmental consequences together.” 40 C.F.R. § 1508.25(a)(3). These similarities are clear. To begin with, both projects involve producing plutonium pits for nuclear weapons. Moreover, both projects are being proposed in locations where the safety of producing plutonium pits is highly questionable at best as LANL suffers from serious and ongoing deficiencies in the management of nuclear safety issues, while the MOX Facility was never designed for fabrication of plutonium pits, is still incomplete, and was the subject of fraudulent construction practices that

leave the state and safety of the building highly uncertain. Finally, because both projects entail processing highly hazardous nuclear materials in facilities with serious safety concerns, both projects are likely to have serious and similar nuclear safety issues and environmental impacts. Accordingly, both actions are “similar” under NEPA.

Furthermore, both actions also satisfy the definition of “cumulative” actions, because they will “have cumulatively significant impacts.” 40 C.F.R. § 1508.25(a)(2). A cumulative impact is “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.” *Id.* § 1508.7. Here, not only will the expansion of plutonium pit production at LANL and the repurposing of the incomplete MOX Facility to produce plutonium pits each have significant impacts in their own right, but each project will also likely have cumulative environmental impacts that should be taken into account in a single EIS. For example, because each site will be performing similar activities and working with similar materials, each site will likely generate wastes that DOE and NNSA will have to determine how to treat, store, or dispose of.

Accordingly, because the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility at SRS are clearly “connected,” “cumulative,” and “similar” actions, “their environmental effects are best considered in a single impact statement,” *American Bird Conservancy*, 516 F.3d at 1032, and a PEIS is the legally and practically appropriate way to accomplish this.

Not surprisingly, therefore, DOE’s own regulations require the production of a PEIS under these circumstances. DOE’s regulations mandate that “[w]hen required to support a DOE programmatic decision (40 CFR 1508.18(b)(3)), DOE shall prepare a programmatic EIS.” 10 C.F.R. § 1021.330(a). In turn, a “DOE programmatic decision” includes the “[a]doption of programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive.” 40 C.F.R. § 1508.18(b)(3). Here, both proposed actions at LANL and SRS are “systematic and connected agency decisions” undertaken to implement the specific “executive directive” in the 2018 Nuclear Posture Review to produce at least 80 plutonium pits per year by 2030. Accordingly, DOE’s regulations mandate the preparation of a PEIS.

Some Select New Information and Changed Circumstances Since the 2008 Complex Transformation Programmatic Environmental Impact Statement

This is by no means all inclusive. In addition, Nuclear Watch asserts that all of the following issues should be considered by both a new programmatic environmental impact statement on expanded plutonium pit production and the SRS-specific environmental impact statement, while reiterating that the PEIS must come first. Further, we would expect the SRS EIS to have far more site-specific information.

First, while the CT PEIS considered various levels of expanded plutonium pit production at five specific NNSA candidate sites, it did not consider **simultaneous production at two sites**. We contend this changed circumstance is justifiable cause alone for a new programmatic environmental impact statement on expanded plutonium pit production.

The Institute for Defense Analysis Report: On May 21, 2019 we obtained an unclassified executive summary of the Institute for Defense Analysis' critique on NNSA's plans for expanded plutonium pit production.¹ It concluded:

Summary of Main Findings

1. Eventually achieving a production rate of 80 ppy is possible for all options considered by the EA [expanded pit production Engineering Assessment], but will be extremely challenging.
2. No available option can be expected to provide 80 ppy by 2030. DoD should evaluate how to best respond to this requirement shortfall.
3. Trying to increase production at PF-4 by installing additional equipment and operating a second shift is very high risk.
4. Effort to identify and address risks is underway, but is far from complete.
5. Strategies identified by NNSA to shorten schedules will increase the risks of schedule slip, cost growth, and cancellation.

In addition, the report stated:

IDA examined past NNSA programs and could find no historical precedent to support starting initial operations (Critical Decision-4, or CD-4) by 2030, much less full rate production. Many similar projects (e.g., the Modern Pit Facility, Chemistry Metallurgy Research Replacement-Nuclear Facility, and Pit Disassembly and Conversion Facility) were eventually cancelled. Of the few major projects that were successfully completed, all experienced substantial cost growth and schedule slippage; we could find no successful historical major project that both cost more than \$700 million and achieved CD-4 in less than 16 years...²

These damning conclusions by independent experts buttress the need for full programmatic review of NNSA's plans for expanded plutonium pit production. NNSA is planning to throw bad money after bad money, wasting taxpayers' funds trying to achieve pit production goals that it will most likely fail at, at the MOX Fuel Fabrication Facility (MFFF), a facility that has already failed in its previous mission while wasting billions of taxpayer dollars.

Given the strong unlikelihood of NNSA meeting its plutonium pit production goals by 2030, the agency should slow down and get NEPA right. Moreover, NEPA indisputably helps DOE make better decisions and conserve taxpayer dollars.³ A PEIS should be used to fully identify and begin to successfully address all program risks, including budget and schedule. Further, both the

¹ Institute for Defense Analysis, March 2019, available at <https://nukewatch.org/newsite/wp-content/uploads/2019/07/IDA-ExecSum-UNC-March2019.pdf>

² Ibid., p. vi.

³ As one concrete example, the now-Executive Director of Nuclear Watch New Mexico commented on the lack of wildfire prevention in a draft 1999 LANL Site-Wide Environmental Impact Statement (SWEIS). In response, the final LANL SWEIS included a detailed hypothetical wildfire that became all too real a half year later during the Cerro Grande Fire. That hypothetical scenario aided Lab leadership in their decision to order evacuation of all but essential personnel. Mitigation provisions in the final LANL SWEIS included fire prevention measures that helped to keep the Cerro Grande Fire a half-mile away from above ground plutonium-contaminated transuranic wastes stored at the Lab's Area G, which could have been catastrophic had their drums ruptured due to high heat.

PEIS and the SRS-specific environmental impact statement should address the unlikelihood pit production meeting NNSA's declared schedule.

Finally, to use a NEPA term, before committing "irretrievable resources" to expanded plutonium pit production, both the new programmatic environmental impact statement and the SRS-specific EIS should address how Department of Energy Defense Programs (including NNSA nuclear weapons programs since 2000) have been on the Government Accountability Office's High Risk List for project mismanagement since its inception in 1992.⁴ While GAO acknowledges that NNSA has made some progress (and more so than DOE Environmental Management), both documents should address how NNSA plans to completely get off that list through the hard work of reforming its capital acquisition program and instituting rigorous contractor accountability. This is particularly true given that NNSA plans to repurpose" the MOX Facility, which squandered billions of taxpayer dollars.

Draft Supplement Analysis of the Complex Transformation Supplemental PEIS

On June 28, 2019 NNSA published a Notice of Availability for a *Draft Supplement Analysis of the Complex Transformation Supplemental Programmatic Environmental Impact Statement* that the public can comment on. In the Draft Supplement Analysis (hereinafter "DSA") NNSA stated:

The purpose of this analysis is to determine, at a programmatic level: (1) if the potential impacts of the proposed action exceed those in the Complex Transformation SPEIS; and (2) if so, if the impacts would be considered significant in the context of NEPA (40 CFR 1508.27), which would require preparation of a supplement to the Complex Transformation SPEIS.⁵

Nuclear Watch commends NNSA for offering the DSA for public comment and we will be submitting extensive comment by the deadline of August 12. However, we believe that the purpose of the Supplement Analysis as described above by NNSA (i.e., "proposed action exceed[ing] those in the Complex Transformation SPEIS") is improperly limited in scope. What the law requires is:

(a) DOE **shall** prepare a supplemental EIS if there are substantial changes to the proposal or significant new circumstances or information relevant to environmental concerns, as discussed in 40 CFR 1502.9(c)(1).⁶

⁴ HIGH-RISK SERIES Substantial Efforts Needed to Achieve Greater Progress on High-Risk Areas, Government Accountability Office, March 2019, p. 33, <https://www.gao.gov/assets/700/697245.pdf>. Of particular relevance is "Capacity: not met. In August 2018, a statutorily required internal review of NNSA's capacity identified unmet critical staffing needs, especially staffing to manage and oversee work on the agency's uranium and plutonium missions, which are expected to grow." P. 217. This does not bode well given the MOX program debacle.

⁵ *Draft Supplement Analysis of the Complex Transformation Supplemental Programmatic Environmental Impact Statement*, DOE/EIS-0236-S4-SA-02 June 2019, p. 26, <https://www.energy.gov/sites/prod/files/2019/06/f64/draft-supplement-analysis-eis-0236-s4-sa-02-complex-transformation-06-2019.pdf>.

⁶ 10 CFR § 1021.314 - Supplemental environmental impact statements, DOE NEPAS Implementing Regulations, <https://www.law.cornell.edu/cfr/text/10/1021.314> (bolded emphasis added)

In turn 40 CFR 1502.9(c)(1) mandates that:

(c) Agencies:

(1) **Shall** prepare supplements to either draft or final environmental impact statements if:

(i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or

(ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.⁷

We believe that 10 CFR § 1021.314 and 40 CFR § 1502.9 apply to programmatic environmental impact statements as well, and that both conditions of “substantial changes in the proposed action” and “significant new circumstances or information relevant to environmental concerns” are more than sufficiently met. This renders NNSA’s preliminary conclusion that a draft supplemental PEIS is not required grossly incorrect.

The Proposed Configuration of NNSA Facilities for Future Plutonium Pit Production Has Substantially Changed

The first substantial change is the configuration of facilities that NNSA proposes to use for expanded plutonium pit production is obvious - - the repurposing of the MOX Fuel Fabrication Facility (MFFF) for plutonium pit production. NNSA obviously thinks that it can adequately meet its NEPA obligation to analyze the repurposing of the MFFF for pit production through the SRS-specific environmental impact statement (EIS) that it has already initiated. We contend that is not enough, again reiterating that 10 CFR § 1021.314 and 40 CFR § 1502.9 apply to programmatic environmental impact statements as well. We further contend that the very fact that a second site (SRS) is now involved some 1,500 miles from the existing plutonium pit production site (i.e., the Los Alamos Lab) inherently requires programmatic review.

But the repurposing of the MFFF is not the only major facility change. The Chemistry and Metallurgy Research Replacement Project (CMRR)-Nuclear Facility at LANL was integral to all alternatives of plutonium pit production that the 2008 Complex Transformation SPEIS considered. However, the CMRR-NF was canceled in 2012 which resulted in an expanded mission and equipage of the Radiological Laboratory Utility and Office Building (AKA “Rad Lab”) and expanded upgrades to PF-4. We assert that this troika of proposed facility changes (i.e. MFFF repurposing, CMRR-NF cancellation and Rad Lab/PF-4 upgrades) demands programmatic review in a programmatic environmental impact statement.

The Drivers and the Requirement for Expanded Plutonium Pit Production Have Substantially Changed

The DSA states:

Since 2008, NNSA has emphasized the need to eventually produce 80 pits per year; the joint DoD-DOE white paper entitled, *National Security and Nuclear Weapons in the 21st Century*, cataloged the need and justification for pit production rates. In the decade plus

⁷ 40 CFR § 1502.9 - Draft, final, and supplemental statements, Council on Environmental Quality, <https://www.law.cornell.edu/cfr/text/40/1502.9> (bolded emphasis added)

since this paper was published, the drivers and the requirement for pit production have remained relatively unchanged through several administrations and changes in congressional leadership. DSA Ex. Summary.

Far from the drivers and the requirement for pit production remaining relatively unchanged as NNSA asserts, the main “drivers” have in fact radically changed in that they have been twice canceled. This is then followed with only a vague justification that the third and latest “driver” that reputedly requires expanded pit production. Specifically, the 2008 DoD-DOE white paper *National Security and Nuclear Weapons in the 21st Century* stated that

[T]he Departments of Defense and Energy are pursuing an alternative to this strategy of indefinite life extension; namely, the gradual replacement of existing warheads with warheads of comparable capability that are less sensitive to manufacturing tolerances or to aging of materials. The generic concept is often referred to as the Reliable Replacement Warhead (RRW).⁸

The white paper goes on to expressly link the need for expanded plutonium pit production to the Reliable Replacement Warhead (RRW). But in the same year Congress declined to fund RRW, thus negating the first rationale for expanded plutonium pit production.

Following that NNSA claimed that the need for expanded pit production was justified by a future “Interoperable Warhead” which the agency described in congressionally-required annual Stockpile Stewardship and Management Plans as the centerpiece of its “3+2” plan to transform the nuclear weapons stockpile and its supporting research and production complex. But NNSA quietly canceled the Interoperable Warhead in an obscure December 2018 report, eliminating the second concrete justification for expanded pit production. In that same report NNSA offered a weak justification for future expanded pit production for the Interoperable Warhead’s proposed successor (the W87-1) by stating:

This campaign to establish a national pit manufacturing capability at required capacity must happen even if the W87-1 program must, for some unplanned reason, deploy with a reused pit. If that were to be the case, then the pit manufacturing campaign would provide new pits for the LEP or replacement program that follows the W87-1.⁹

Our point is that NNSA does not specify what that next Life Extension Program or replacement program is, thus has yet to offer a concrete justification for expanded plutonium pit production that it estimates will cost \$43 billion in taxpayer funds over 30 years.¹⁰ It is imperative that a supplemental PEIS clearly defines the specific need for expanded plutonium pit production.

⁸ *National Security and Nuclear Weapons in the 21st Century*, p.18,

<https://dod.defense.gov/Portals/1/Documents/pubs/nuclearweaponspolicy.pdf>

⁹ W78 Replacement Program (W87-1): Cost Estimates and Use of Insensitive High Explosives Report to Congress, NNSA, December 2018, p. 6, <https://nukewatch.org/newsite/wp-content/uploads/2019/03/W78-Replacement-Program-Cost-Estimates-IHE-1.pdf>

¹⁰ Plutonium Pit Production Engineering Assessment (EA) Results, NNSA, May 2018, slide 10 (add Alt 1 and 2c together), https://nukewatch.org/newsite/wp-content/uploads/2019/03/FINAL-Pu-Pit-Production-EA-Results-05.14.18_Unclassified.pdf

The 2008 white paper *National Security and Nuclear Weapons in the 21st Century* also noted:

Successive efforts at extending the service life of the current inventory of warheads will drive the warhead configurations further away from the original design baseline that was validated using underground nuclear test data. Repeated refurbishments will accrue technical changes that, over time, might inadvertently undermine reliability and performance.¹¹

This is echoed in NNSA's FY 2020 Congressional Budget Request:

The stockpile is inherently moving away from the Underground Test (UGT) database through aggregate influences of aging, modern manufacturing techniques, modern materials, and evolving design philosophies.¹²

The DSA states that NNSA "is responsible for meeting the national security requirements established by the President and the Congress to maintain and enhance the safety, reliability, and performance of the United States nuclear weapons stockpile." DSA Ex. Sum. A supplemental PEIS should analyze a curatorship-like Stockpile Stewardship Program that rigorously hews to the tested pedigree of the nuclear weapons stockpile, avoiding changes at every possible turn that could introduce uncertainties. This is very salient given that according to NNSA's FY 2020 Congressional Budget Request future pits will not be exact replicas but instead will be "W87-like." A supplemental PEIS should explain what that is and explore to what extent any heavily modified pit designs could undermine confidence in safety and reliability, thereby possibly degrading national security and prompting a return to full-scale testing, which would have severe international proliferation consequences.

The DSA concludes that no further programmatic review is needed for the Pantex Plant as a supporting site for expanded plutonium pit production. DSA p. 21. This is incorrect as the Pantex Plant is the site for nonintrusive requalification leading to reuse of existing pits in NNSA's Life Extension Programs. We contend that a supplemental PEIS is required to consider the extensive reuse of plutonium pits as a serious alternative to virgin pit production, an alternative that would be less expensive and less internationally provocative and environmentally damaging.

Changes in Environmental Conditions, Operations, and NEPA Process

Under Changes in Environmental Conditions, Operations, and NEPA Process, the DSA states:

While there are differences in the natural environment at both sites [LANL and SRS] since the Complex Transformation SPEIS was prepared, the differences are not significant in terms of analyzing changes in environmental impacts at a programmatic level. DSA p. 23.

¹¹ *National Security and Nuclear Weapons in the 21st Century*, p. 17,
<https://dod.defense.gov/Portals/1/Documents/pubs/nuclearweaponspolicy.pdf>

¹² NNSA FY 20 Congressional Budget Request, p. 158,
<https://www.energy.gov/sites/prod/files/2019/04/f62/doe-fy2020-budget-volume-1.pdf>

We disagree. Since the 2008 Complex Transformation PEIS LANL experienced the grave threat of another major wildfire, the 2011 Los Conchas Fire. After ignition that crown fire raced 13 miles due east to the Lab's western boundary in 24 hours. Given climate change, global warming and increased aridity in the Southwest, the incidences of wild fire at or near LANL will likely only increase.

Concerning operations at LANL, the Complex Transformation PEIS did not consider the track record of chronic nuclear safety infractions at PF-4, which ultimately led to the cessation of major plutonium operations for nearly four years. Indeed, the DSA claims that at both LANL and SRS "Potential impacts from some accidents, such as criticality accidents, would not change, as these accidents are not dependent on the number of pits produced." DSA p. 30 and 35. That categorical statement seems to defy simple logic.

As the Defense Nuclear Facilities Safety Board (DNFSB) noted in its required 2018 annual report to Congress:

Nuclear Criticality Safety at Los Alamos National Laboratory (LANL)—Based on an evaluation of the LANL nuclear criticality safety program, the Board in its November 28, 2018, letter to the Secretary of Energy, identified the following related to this vitally important safety program: (1) lack of concrete milestones in corrective action initiatives for weaknesses in the program; (2) inadequate staffing in the nuclear criticality safety division; (3) inadequate documentation for daily work activities with the potential to impact nuclear criticality safety; (4) instances of poor operational quality in implementing nuclear criticality safety requirements; and (5) repetitive, ineffective corrective actions for weaknesses in the program.¹³

We contend that a supplemental PEIS is needed to analyze the occupational and public risks of repeated, chronic nuclear criticality safety incidences at LANL and how to resolve them. By extension this applies to any future pit production at SRS as well. We argue that a genuine, comprehensive nuclear safety regime needs to be instituted at a programmatic level that must be considered in programmatic environmental impact statement.

The DSA considers the Waste Isolation Pilot Plant (WIPP) as a supporting site for expanded plutonium pit production since production would increase transuranic waste disposal at WIPP. The DSA notes that available capacity has decreased since the time the Complex Transformation SPEIS was prepared but concludes that the impacts of increased pit production on TRU disposal at WIPP are not significant. DSA p. 21. We contend that programmatic review is required to consider and analyze all the possible future competing demands on WIPP. These include the current proposal to "dilute and dispose" of 6 tons of excess plutonium from SRS and the future consequences of DOE attempted reclassification of some high-level wastes so that they can be disposed of at WIPP. It should also be noted that the DSA's claim of current remaining capacity of 108,048 cubic meters at WIPP could be reduced by 30% if the current challenge by citizen groups (including Nuclear Watch NM) to DOE's recalculation of disposed TRU waste is successful.

¹³ Defense Nuclear Facilities Safety Board 29th Annual Report to Congress, April 2019, p. ii, <https://www.dnfsb.gov/sites/default/files/document/17791/2018%20Annual%20Report%20to%20Congress%20%5B2019-100-017%5D.pdf>

Under “Cumulative Impacts” the DSA concludes that “The potential cumulative transportation impacts [of the Yucca Mountain Repository] would be reduced from that presented in the Complex Transformation SPEIS.” Omitted from any consideration in the DSA is the current application submitted by the Holtec Corporation to the Nuclear Regulatory Commission for “Consolidated Interim Storage” in New Mexico of up to 170,000 metric tons of past and future spent nuclear fuel. The cumulative impacts of this proposal could substantially exceed that of Yucca Mountain since the requested total inventory is far greater than that proposed for Yucca Mountain. Moreover, at least in theory the lethal spent nuclear fuel would have to be moved again once a permanent repository is ever (if ever) completed. A supplemental PEIS should consider the cumulative impacts of proposed Consolidated Interim Storage of high level wastes.

Also, under “Cumulative Impacts” the DSA notes that there have been numerous changes to NNSA’s Plutonium Disposition Plan, including the cancellation of the MOX program and the repurposing of the MOX Fuel Fabrication Facility for plutonium pit production. As a consequence, LANL would likely be involved in oxidizing plutonium as part of the proposed “dilute and dispose” process to dispose of excess plutonium at WIPP. DSA p. 43. This however cries out for programmatic review at the highest level since that plutonium oxidizing can only take place at LANL’s PF-4, the already overcrowded facility slated to produce at least 30 pits per year, with a long track record of nuclear safety infractions. It is not clear that there is enough floor space in PF-4 for oxidation of up to 2.5 tons of plutonium annually if expanded pit production is implemented, and reportedly preparations for expanded oxidizing is on hold until pit production requirements are better known. But this is the very reason why a programmatic environmental impact statement is required, to help sort out possible competing priorities between different programs.

Is DOE Systematically Degrading Safety?

The long track record of chronic nuclear criticality incidences at LANL has become publicly known primarily through the reporting of the Defense Nuclear Facilities Safety Board (DNFSB). This has obvious relevance to any future plutonium pit production at SRS. In what is arguably an attempt to kill the messenger DOE has issued its Order 140.1 *Interface with the Defense Nuclear Facilities Safety Board* to replace its prior directive on interface with the Board, DOE Manual 140.1-1B. As the Board itself observed:

...DOE Order 140.1, *Interface with the Defense Nuclear Facilities Safety Board*, issued in May 2018, threatens to undermine the Board’s ability to execute its statutory mission under the Atomic Energy Act. DOE Order 140.1 improperly attempts to diminish the Board’s statutory mandate in four principal ways, all of which are inconsistent with the text of the Atomic Energy Act:

- The Order contains a narrow definition of “Public Health and Safety,” which only includes individuals located outside of DOE site boundaries (i.e., excluding onsite individuals and workers);
- The Order provides exemptions allowing DOE and contractors to not provide access to facilities that DOE determines do not have the potential to adversely affect public health and safety, which could limit Board oversight at many defense nuclear facilities;
- The Order lacks a clear provision to provide the Board with ready access to such information, facilities, and personnel as the Board considers necessary to carry out its responsibilities; and

- The Order provides an allowance for DOE to deny Board requests for relevant deliberative and pre-decisional information.¹⁴

The last point in particular strikes at the heart of potential risks that the public may be exposed to by plutonium pit production at the repurposed MOX Facility, especially in light of numerous allegations of improper and shoddy construction. The Safety Board is the only independent entity that can review and comment on NNSA facility planning before those plans are made final. The DOE attempt to bar the DNFSB from “relevant deliberative and pre-decisional information” could directly lead to a facility repurposed for pit production lacking the safety provisions and requirements that would make the public safer.

DOE/NNSA’s degradation of safety even as it plans to ramp up plutonium pit production appears to be systematic. As the Safety Board notes:

DOE has begun the process to revise 10 CFR Part 830, *Nuclear Safety Management*, which has served as the cornerstone of its regulatory framework to ensure adequate protection of public health and safety... Overall, the Board is concerned that the proposed revision to 10 CFR Part 830 will make it more difficult for the Department to exercise consistent oversight across the complex and loosens requirements upon which DOE and the public rely to ensure adequate protection of public health and safety. The Board identified concerns with DOE’s proposal to remove the requirement for DOE to annually review and approve changes to documented safety analyses. The Board found that DOE’s proposed change, if implemented, created a potential for the safety basis and facility operations to drift outside the envelope approved by DOE”¹⁵

This is again directly relevant to the risks posed to the public by plutonium pit production at both LANL and SRS. LANL’s PF-4 has long had a bad track record of insufficient and /or outdated safety bases and the removal of the requirement to annually review and approve changes could directly threaten the public.

In short, a new PEIS is needed to fully review the risks posed by plutonium pit production to the public by apparent systemic attempts by DOE to degrade institutional safety and independent review of safety. That review should be incorporated into the SRS-specific EIS as well.

The 1998 Court Order Requiring a Supplemental PEIS

In addition to the clear need for a PEIS under NEPA and its implementing regulations, DOE is currently subject to a court order that mandates the preparation of a PEIS under the current circumstances. That order establishes the following requirement:

Prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability for a capacity in excess of the level that has been analyzed in the SSM PEIS (the capacity analyzed in the SSM PEIS is the fabrication at LANL of 50 pits per year under routine conditions, and 80 pits per year under multiple shift operations), DOE shall prepare and circulate a

¹⁴ Ibid., p. 2.

¹⁵ Ibid., p. 29.

Supplemental PEIS, in accordance with DOE NEPA regulation 10 C.F.R. § 1021.314, analyzing the reasonably foreseeable environmental impacts of and alternatives to operating such an enhanced capacity, and issue a Record of Decision based thereon.¹⁶

Because DOE and NNSA are currently devoting resources to designing a pit production capability of *at least* 80 pits per year, including a plan to produce pits at SRS, this order clearly requires the agencies to undertake a Supplemental PEIS.

In contrast, NNSA's June 2019 *Draft Supplement Analysis of the Complex Transformation Supplemental Programmatic Environmental Impact Statement* concludes:

Therefore, as Head of Defense Programs and pursuant to NNSA's Administrative Procedure and DOE's National Environmental Policy Act Implementing Procedures (10 CFR 1021.314(c)), I have preliminarily determined that no further NEPA documentation is required at a programmatic level, and NNSA may amend the existing Complex Transformation SPEIS ROD. DSA p. 48.

We believe NNSA's preliminary determination to not prepare a supplemental PEIS is legally insufficient under NEPA because of all the reasons stated above. But even if a court were to rule against us on that count, we believe that NNSA cannot evade the clear requirement of the court order. First, it is indisputable that NNSA is planning on producing more than 80 pits per year.¹⁷ Second, we believe this requirement pre-empts NNSA's apparent plan to avoid a supplemental PEIS by amending the Record of Decision (ROD) for the 2008 Complex Transformation PEIS. This is because the court order clearly refers to the 1996 Stockpile Stewardship and Management PEIS, whose Record of Decision relocated the plutonium pit production mission to LANL while explicitly limiting it to no more than 20 pits per year.

NNSA could perhaps seize on the phrase "at LANL" to construe that the court order is not applicable to NNSA's current plans for at least 30 pits per year at LANL and at least 50 pits per year at SRS because it would not exceed what the SSM PEIS contemplated for just LANL alone. We assert in advance that it would be ill advised for NNSA to do so. The SSM PEIS also considered relocating plutonium pit production to SRS, and in both cases (including LANL) analyzed an annual capacity of approximately 50 pits per year on a single shift. But the SSM PEIS in no case contemplated producing pits at both sites simultaneously and at a level exceeding 80 pits per year. Thus, we believe that the court order clearly mandates that NNSA must prepare a supplemental PEIS for expanded plutonium pit production since the agency plans to produce more than 80 pits per year.

¹⁶ *Natural Resources Defense Council v. Pena*, 20 F.Supp.2d 45, 50 (D.D.C. 1998), <https://law.justia.com/cases/federal/district-courts/FSupp2/20/45/2423390/>

¹⁷ See for example the May 10, 2018 *Joint Statement from Ellen M. Lord and Lisa E. Gordon-Hagerty on Recapitalization of Plutonium Pit Production* that first announced expansion of pit production, to wit: "This two-prong approach – with **at least** 50 pits per year produced at Savannah River and **at least** 30 pits per year at Los Alamos – is the best way to manage the cost, schedule, and risk of such a vital undertaking." (Bolded emphasis added.) <https://www.energy.gov/nnsa/articles/joint-statement-ellen-m-lord-and-lisa-e-gordon-hagerty-recapitalization-plutonium-pit>

DOE and NNSA Must Begin the PEIS Now

Until NNSA fully complies with NEPA through the preparation of a programmatic environmental impact statement on expanded plutonium pit production, Nuclear Watch believes that any irreversible or ir retrievable commitment of resources to either the expansion of pit production at LANL or to the repurposing of the MOX Facility at SRS is unlawful. Accordingly, to properly address all of the issues mentioned above, Nuclear Watch New Mexico insists that 1) NNSA begin the required PEIS right away for the expansion of plutonium pit production at LANL and the repurposing of the MOX Facility for plutonium pit production at SRS, and 2) suspends the SRS-specific environmental impact statement process until that PEIS is completed.

After all, what is the rush, when NNSA is highly unlikely to meet its 2030 SRS pit production role, as the Institute for Defense Analysis so compellingly demonstrated?

Savannah River Site Specific Issues

Alleged Construction Deficiencies at the MOX Fuel Fabrication Facility

There are numerous allegations over shoddy and potentially illegal activities related to the installation of various components in the MOX plant. These allegations pertain not only to the faulty HVAC system, which may have to be demolished in its entirety, but also to many other installations. If any part of the HVAC system is proposed for reuse there must then be full documentation that it meets nuclear quality control standards for both the components, including gaskets and hangers, and their installation.

The draft EIS must seriously analyze the as-built quality of the MOX Facility and demonstrate that it indeed can be “repurposed” for expanded plutonium pit production. The draft EIS must include a full review of MOX construction, inspections and certification of components. This includes the HVAC system and wall penetrations. The certification of components that may be considered for reuse in the repurposed MOX Fuel Fabrication Facility must be demonstrated to meet nuclear quality control requirements. The extent of problems with construction of the MOX Facility may well preclude its use for pit production.

All of this is underscored by the fact that the U.S. government has filed a false claims lawsuit against the MOX Facility contractor. As the Department of Justice announced:

... the United States has filed suit against CB&I AREVA MOX Services LLC (MOX Services) and Wise Services Inc. under the False Claims Act and the Anti-Kickback Act in connection with a contract between MOX Services and the National Nuclear Security Administration relating to the design and operation of the MOX Fuel Fabrication Facility (MFFF) at the NNSA Savannah River Site in Aiken, South Carolina... “Government contractors who line their bank accounts by receiving kickbacks or submitting fraudulent claims undermine the public's trust in government programs and operations,” said Assistant Attorney General Jody Hunt of the Department of Justice’s Civil Division. “We will continue to vigorously pursue those who misuse taxpayer funds.”... “The Department of Energy Office of Inspector General remains committed to ensuring the integrity of the Department’s contractors and subcontractors,” said Teri L. Donaldson, Department of Energy Inspector General. “We take allegations of false claims,

overbilling, and kickbacks very seriously and will aggressively investigate these matters to protect the Department and the American taxpayers.”¹⁸

DOE and NNSA should demonstrate that professed zeal for protecting the American taxpayer through full investigations into fraud, waste, abuse and mismanagement before repurposing the MOX Facility, and report on it in the draft SRS EIS. Most importantly, the draft SRS EIS should objectively evaluate whether the MOX Fuel Fabrication Facility can realistically be repurposed for expanded plutonium pit production to begin with. A detailed plan for repurposing the MFFF for pit production must be analyzed in the SRS EIS (as complete as possible given probable classification barriers).

Seismic Concerns

We note how seismic concerns played a major role in causing massive cost overruns involving billions of taxpayer dollars and related complete redesigns of both the Chemistry and Metallurgy Research Replacement Project at the Los Alamos National Laboratory and the Uranium Processing Facility (UPF) at the Y-12 Site. Nuclear Watch urges the NNSA to avoid repeating these failures by fully incorporating seismic safety provisions into the repurposing of the MOX Fuel Fabrication Facility (MFFF) for plutonium pit production. We think the Complex Transformation PEIS seismic assessment of SRS to be far too complacent, stating “The Atlantic Coastal Plain tectonic province in which SRS is located is characterized by generally low seismic activity that is expected to remain subdued (DOE 2004a).”¹⁹ That needs to be corrected in the draft SRS EIS.

In particular, we advise paying close attention to any SRS-related seismic concerns expressed by the Defense Nuclear Facilities Safety Board (DNFSB). Further, NNSA should provide the Safety Board ready access to pre-decisional blueprints, data sheets, etc., relevant to repurposing MFFF, contrary to the apparent intent of DOE Order 140.1 (see our earlier comment section *Is DOE Systematically Degrading Safety?*).

We note that the Savannah River Site is not immune from seismic concerns, as it is located some 100 miles from the site of the 1886 6.9–7.3 Mw Charleston, SC earthquake that had little or no preceding historic seismic activity. It was the most damaging earthquake ever to occur in the Southeastern United States and ranks among the most powerful ever in eastern North America. In Aiken County, chimney tops fell, millpond dams failed and trains were derailed.

A 2014 US Geological Survey Seismic Hazard Map²⁰ shows that South Carolina is among the sixteen states that have the highest risk for experiencing earthquakes. Since the mid-1980s, there have been no fewer than 11 earthquakes whose epicenters were on the Savannah River Site. Two had a magnitude of 2.6, the highest recorded, occurring in 1985 and 2001. From October 2001 to

¹⁸ *United States Files False Claims Act Lawsuit in Connection With MOX Fuel Fabrication Facility Contract*, Department of Justice, February 14, 2019, <https://www.justice.gov/opa/pr/united-states-files-false-claims-act-lawsuit-connection-mox-fuel-fabrication-facility>

¹⁹ October 2008 Final Complex Transformation SPEIS, Chapter 4, Affected Environment 4.8.6.3 Seismology, p. 4-353.

²⁰ Seismic Hazard Maps and Site-Specific Data, USGS, <https://earthquake.usgs.gov/hazards/hazmaps/>

March 2002, there were eight earthquakes.²¹ Moreover, there was a magnitude 4.1 earthquake near SRS on Valentine's Day, 2014.²²

In short, the SRS EIS should fully analyze seismic concerns and possible mitigation strategies to lower public risks from future plutonium pit production. The DNFSB has postulated high doses to the public in the event that the plutonium pit production facility (known as "PF-4") at LANL was seriously damaged by a seismic event. While the seismic risks are no doubt lower at SRS, and the neighboring population further way, they should nevertheless be fully explored in the SRS EIS.

Wildfire Risks

The risk of wildfires will likely increase with climate change and global warming. We note the risks posed by the current wildfires at the Idaho National Laboratory and the Hanford nuclear reservation in Washington State. In April-May 2000 and June 2011 very dangerous crown fires threatened the Los Alamos National Laboratory (indeed the Lab and townsite were fully evacuated except for essential personnel during the 2000 Cerro Grande Fire). In November 2018 the Woolsey Fire nearly completely burned the Santa Susanna Field Laboratory, causing deep public mistrust over resulting airborne contaminants.

As one source puts it:

The contaminated ground surface at Savannah River Site (SRS) is a result of the decades of work that has been performed maintaining the country's nuclear stockpile and performing research and development on nuclear materials. The volatilization of radionuclides during wildfire results in airborne particles that are dispersed within the smoke plume and may result in doses to downwind firefighters and the public. To better understand the risk that these smoke plumes present, we have characterized four regions at SRS in terms of their fuel characteristics and radiological contamination on the ground. Combined with general meteorological conditions describing typical and extreme burn conditions, we have simulated potential fires in these regions and predicted the potential radiological dose that could be received by firefighting personnel and the public surrounding the SRS. In all cases, the predicted cumulative dose was a small percent of the US Department of Energy regulatory limit (0.25 mSv). These predictions were conservative and assumed that firefighters would be exposed for the duration of their shift and the public would be exposed for the entire day over the duration of the burn. Realistically, firefighters routinely rotate off the firefront during their shift and the public would likely remain indoors much of the day. However, we show that even under worst-case conditions the regulatory limits are not exceeded. We can infer that the risks associated with wildfires would not be expected to cause cumulative doses above the level of concern to either responding personnel or the offsite public.

²¹ This seismic information is from *Savannah River Site monitors activity Quake shakes Aiken County*, Dede Biles, September 18, 2014, https://www.aikenstandard.com/news/savannah-river-site-monitors-activity-quake-shakes-aiken-county/article_e15ca9b8-2aa7-57e0-8d67-baf84abd66a5.html

²² <http://www.dnr.sc.gov/geology/RecentEarthquakes.htm>

That conclusion needs to be reconfirmed in the SRS EIS given the addition of the plutonium pit production mission. Further, Nuclear Watch stresses the point that NEPA helps DOE and NNSA make better decisions, even during extreme wildfire emergencies. As previously stated in footnote 3 of these comments, the now-Executive Director of Nuclear Watch New Mexico commented on the lack of wildfire prevention in a draft 1999 LANL Site-Wide Environmental Impact Statement (SWEIS). In response, the final LANL SWEIS included a detailed hypothetical wildfire that became all too real a half year later during the Cerro Grande Fire. That hypothetical scenario aided Lab leadership in their decision to order evacuation of all but essential personnel. Mitigation provisions in the final LANL SWEIS included fire prevention measures that helped to keep the Cerro Grande Fire a half-mile away from above ground plutonium-contaminated transuranic wastes stored at the Lab's Area G, which could have been catastrophic had their drums ruptured due to high heat.

Miscellaneous Specifics

What analytical chemistry and materials characterization capabilities will the repurposed MOX Fuel Fabrication Facility have? Will they be redundant to LANL's AC and MC capabilities? Will they be independent of LANL's AC and MC capabilities? Will there have to be transport of special nuclear materials between LANL and SRS to take advantage of LANL's AC and MC capabilities?

What plutonium pit radiographic capabilities, if any, will the repurposed MOX Fuel Fabrication Facility have?

In general, expanded plutonium pit production will likely prompt the need for increased hydrotests. Are there any plans for hydrotesting at SRS? If so, the draft EIS needs to consider their potential environmental effects and possible mitigation measures.

A "Repurposed MFFF Capabilities Study" is needed that examines what plutonium capabilities are truly needed for at least 50 pits per year. That study needs to appropriately configure those capabilities at the repurposed MFFF down to the floor plan level. The SRS EIS must then analyze in detail those needed capabilities and the appropriate floor plan configuration.

A Cost-Benefit Analysis Is Needed. A legitimate SRS EIS would perform a cost-benefit analysis given the MFFF's massive cost overrun and the government's false claims lawsuit. DOE NEPA Implementation Regulation (40 CFR § 1502.23) states:

If a cost-benefit analysis relevant to the choice among environmentally different alternatives is being considered for the proposed action, it shall be incorporated by reference or appended to the statement as an aid in evaluating the environmental consequences. To assess the adequacy of compliance with section 102(2)(B) of the Act the statement shall, when a cost-benefit analysis is prepared, discuss the relationship between that analysis and any analyses of unquantified environmental impacts, values, and amenities. For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations. In any event, an environmental impact statement should at least indicate those considerations,

including factors not related to environmental quality, which are likely to be relevant and important to a decision.

If there was ever a project that needed a cost benefit analysis, it is pit production at the Savannah River Site, which the SRS EIS should incorporate.

The draft SRS EIS must fully consider Intentional Destructive Acts scenarios, including both internal sabotage and terror events. The draft EIS should disclose those scenarios to the fullest extent possible given probable classification barriers.

The Draft EIS should analyze the impacts of diverting taxpayer dollars to new nuclear weapons facilities instead of cleaning up the massive environmental damage caused by past research and production. What are the long-term public health and environmental effects of leaving radioactive and chemical contaminants that can pollute precious water resources, while new, unnecessary, and costly nuclear facilities that will produce more contaminants are being built?

The draft SRS EIS must be completely free of predetermination. The draft SRS EIS will be clearly unusual given that the MFFF is already partially built. NNSA must concretely demonstrate that it can pursue an impartial process without predetermination that leads to an objective decision to repurpose the MFFF or not.

What are the risks of establishing plutonium pit production at SRS, which will be a completely new mission there? Will staff be adequately trained? Will SRS avoid the chronic nuclear safety infractions that have plagued the Los Alamos Lab, which has 70 years of experience in pit production?

The risks of transport of plutonium back and forth to SRS from such sites as Pantex and the Los Alamos Lab must be analyzed in the draft EIS.

What are all of the radioactive and chemical waste streams and how will they be disposed of? The State of South Carolina has been in a long struggle with the Department of Energy to not become the nation's *de facto* dumping ground for excess plutonium. How will expanded pit production add to the unwanted inventory of plutonium that is already at SRS? How might that further strain the relationship between NNSA and the state of South Carolina?

All analyses in the draft EIS must address the risk to the most vulnerable, that is pregnant female farmer, fetuses, children and the elderly, rather than the standard, less vulnerable "Reference Man."

DOE should dedicate funding to local and state governments for independent environmental monitoring, with the right of review of that monitoring by the potentially affected public.

All socioeconomic impacts to potentially affected communities must be analyzed. How many jobs will be generated? How long will these jobs last? Will people be brought in from outside of the area to work at these facilities? If so, what positions will they fill? Impacts to tourism must be analyzed. Impacts to property values must be analyzed.

SRS must not be considered for expanded plutonium pit production only because the MFFF already exists. The issue of jobs or contracts must not drive the establishment of plutonium pit production at SRS, but that appears to be a main motivator for DOE and local politicians. Those issues should have no bearing on a national security program of this sort. Making this project into a parochial jobs project is also part of DOE's recipe for failure.

All cited reference documents should be made immediately accessible online upon the release of the draft SRS EIS.

The public comment period for the draft EIS should be at least 90 days.

- End of Scoping Comments -

These scoping comments on the SRS EIS for plutonium pit production respectfully submitted,

Jay Coghlan
Executive Director

Scott Kovac
Research Director

Attachment C

Comments on NNSA's Draft Supplement Analysis of the 2008 Complex Transformation PEIS

**Geoffrey Fettus, Senior Attorney, Natural Resources Defense Council
August 9, 2019**

<https://nukewatch.org/newsite/wp-content/uploads/2019/08/NRDC-CT-PEIS-Supp-Analysis-Comments.pdf>



August 9, 2019

Ms. Jennifer Nelson
NEPA Document Manager
NNSA SRS Field Office
P.O. Box A, Aiken, SC 29802

By email to NEPA-SRS@srs.gov

Re: Comments on NNSA's Draft Supplement Analysis of the 2008 Complex Transformation PEIS

Dear NEPA Document Manager:

These comments by the Natural Resources Defense Council (NRDC) reiterate two fundamental points I have already made with co-counsel William N. Lawton of Meyer Glitzenstein & Eubanks, LLP in our May 17, 2019 letter to Department of Energy (DOE) Secretary James Richard Perry and National Nuclear Security Administration (NNSA) Administrator Lisa Gorden-Hagerty:¹

- 1) Given NNSA's May 10, 2018 decision to expand plutonium pit production, the National Environmental Policy Act (NEPA) clearly requires the agency to prepare a new programmatic environmental impact statement (PEIS) to supplement the 2008 Complex Transformation PEIS; and
- 2) Even if NNSA does not agree with the above, there is a 1998 court order that requires DOE to prepare a supplemental PEIS in the event NNSA's proposed plans for future plutonium pit production extend beyond fabrication at LANL of 50 pits per year under "routine conditions," or 80 pits per year under "multiple shift operations."

We intend to enforce that court order, if necessary.

A. NEPA Requires a New PEIS to Supplement the 2008 Complex Transformation PEIS

The stated purpose of the NNSA's *Supplement Analysis of the 2008 Complex Transformation Programmatic Environmental Impact Statement* is:

"... to allow NNSA to determine whether, prior to proceeding with the effort to produce plutonium pits at a rate of no fewer than 80 pits per year by 2030, the existing Complex Transformation SPEIS should be supplemented, a new environmental impact statement should be prepared, or no further *National Environmental Policy Act* (NEPA) analysis is required. The Draft SA preliminarily concludes that further NEPA documentation at a programmatic level is not required; however, NNSA will consider comments on this Draft SA and publish a Final SA."²

¹ See, *The need to prepare a Programmatic Environmental Impact Statement in connection with plans to expand plutonium pit production at the Los Alamos National Laboratory in New Mexico and the Savannah River Site in South Carolina*; Nickolas Lawton, MGE, LLP and Geoffrey Fettus, NRDC; May 17, 2019; <https://nukewatch.org/newsite/wp-content/uploads/2019/05/Summary-Pit-Production.pdf>

² *Supplement Analysis of its 2008 Complex Transformation Programmatic Environmental Impact Statement*, NNSA, June 2019, Executive Summary, <https://www.energy.gov/nepa/downloads/eis-0236-s4-sa-02-draft-supplement-analysis>

NNSA has reached the wrong preliminary conclusion. In our view, NNSA must complete a new programmatic environmental impact statement (PEIS) on its radically revised plan for expanded production of plutonium pits, the radioactive core of nuclear weapons. Simply amending the Record of Decision for the 2008 Complex Transformation (CT) PEIS will not suffice to support a decision to exceed the currently authorized level of 20 pits per year at the Los Alamos National Laboratory (LANL), which was sanctioned by the original 1996 Stockpile Stewardship and Management Programmatic Environmental Impact Statement. The need for a new PEIS is the product of numerous changed circumstances, much new information, and NNSA's new plan for simultaneous pit production at two disparate sites, separated by some 1,388 miles, a programmatic alternative that the Complex Transformation PEIS never considered.

NNSA's new proposal is sufficient justification by itself for a new PEIS. This is so for a host of reasons that should be evident. The new decision shifts the preponderance of NNSA's pit production capacity to a new site that has never hosted this activity before. Such a program entails new patterns for long-distance transportation for intrinsically hazardous plutonium in various forms, including fabricated nuclear weapons pits and plutonium-contaminated wastes. All of this could pose a hazard to the public from a security standpoint if the plutonium were to fall into the wrong hands or was dispersed into the environment by fire, a chemical explosion, or some other such unforeseen accident. Countenancing such situations is precisely what NEPA is for – prior to making the decision to proceed with such major federal programmatic actions.

To use the Department of Energy's own NEPA regulatory language, a new PEIS is required because the expansion of pit production at LANL and the repurposing of the MOX Facility at SRS are "systematic and connected agency decisions" that are clearly "connected," "cumulative," and "similar" actions, and therefore "their environmental effects must be considered in a single impact statement." Accordingly, DOE's own NEPA regulations require the preparation of a PEIS.

NNSA's Supplement Analysis erroneously claims that the drivers and requirements for expanded plutonium pit production have remained the same. To the contrary, they have substantially changed; NNSA's past rationales for expanded pit production have involved speculative new-design nuclear weapons that end-up being canceled, such as the prior "Reliable Replacement" and "Interoperable" warheads. NNSA's latest rationale is for a newly proposed W87-1 warhead. In this instance, the Department attempts to inoculate itself against future objections on these matters by asserting that if it does not use newly manufactured pits in this latest iteration, it will use them for the as yet unnamed next warhead "Life Extension Program."³ NNSA has yet to offer a concrete, consistent rationale for an expensive and substantially expanded plutonium pit production.

NEPA requires that a federal agency clearly state the national purpose and need to be met by any programmatic proposal with significant environmental impacts. Such a clear statement of DOE's purpose and need for proposing expanded plutonium pit production at a new site, and an analysis of all reasonable alternatives that might satisfy this purpose and need with fewer environmental impacts, seems especially indicated in this case given that up to 20,000 existing pits are already stored at the Pantex Plant near Amarillo, TX. Moreover, independent experts have found that existing pits have reliable lifetimes of more than a century and can, if necessary, be refurbished.⁴ All of this points to the fact that in order to fulfill its NEPA obligations, NNSA must consider the extensive reuse of existing plutonium pits as a credible alternative to expanded plutonium pit production, and that the only appropriate and legally compliant

³ See *W78 Replacement Program (W87-1): Cost Estimates and Use of Insensitive High Explosives*, NNSA, December 2018, page 6, <https://nukewatch.org/newsite/wp-content/uploads/2019/03/W78-Replacement-Program-Cost-Estimates-IHE-1.pdf>.

⁴ *Pit Lifetime Study*, JSR-06-035, November 20, 2006, the Mitre Corporation (also known as the "JASONS"), https://www.nukewatch.org/facts/nwd/JASON_ReportPuAging.pdf.

vehicle for that is a new programmatic environmental impact statement on expanded plutonium pit production.

A new PEIS is also needed to analyze the occupational and public risks of repeated, chronic nuclear criticality safety infractions at LANL and how to resolve them. By extension, the need for a more effective nuclear criticality regimen applies to any future pit production at SRS as well. A genuine, comprehensive nuclear safety regime needs to be instituted at a programmatic level, and its putative beneficial impact on hazard reduction to workers and the public analyzed in a new PEIS. This document must also review potential risks to the public from apparent systemic attempts by DOE to degrade institutional safety, such as relaxing internal nuclear safety rules and restricting access of the independent Defense Nuclear Facilities Safety Board.

Additionally, but not last, the risks of increased transport of plutonium and plutonium-contaminated wastes between NNSA sites must be analyzed in a new PEIS. The only repository for transuranic radioactive wastes from plutonium pit production is the Waste Isolation Pilot Plant (WIPP). New programmatic review is required to analyze all (if any) of the increasing radioactive waste disposal demands on WIPP, which include future expanded pit production, 34 tons or more of existing “excess” plutonium and potential attempts by DOE to “reinterpret” or downgrade some high-level radioactive wastes, likely another topic of legal dispute in another forum. A new PEIS must guarantee that all future transuranic waste packaging and shipping will be safe, given that LANL sent an improperly prepared waste drum to WIPP that ruptured, exploded, and closed that facility for nearly 3 years, costing the American taxpayer some \$3 billion.

B. The 1998 Court Order

While a new or Supplemental PEIS in the present circumstance is indicated under any good faith interpretation of NEPA and its implementing regulations, the DOE apparently does not yet perceive its obligations in this light. Therefore, we respectfully remind the Department that it remains subject to a court order that *mandates* the preparation of a PEIS in the current circumstances. That Order established the following requirement:

Prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability for a capacity in excess of the level that has been analyzed in the SSM PEIS (the capacity analyzed in the SSM PEIS is the fabrication at LANL of 50 pits per year under routine conditions, and 80 pits per year under multiple shift operations), *DOE shall prepare and circulate a Supplemental PEIS, in accordance with DOE NEPA regulation 10 C.F.R. § 1021.314, analyzing the reasonably foreseeable environmental impacts of and alternatives to operating such an enhanced capacity, and issue a Record of Decision based thereon.*⁵

DOE now proposes pit fabrication of “*at least*” 50 pits per year at SRS and “*at least*” 30 pits per year at LANL. So not only has DOE introduced an entirely new production site in a radically different climate and geography into its programmatic proposal, but the previously analyzed *limit* of 80 pits per year under “multiple shift operations” has become an open-ended capacity for “no fewer than” 80 pits per year at multiple sites. Absent further NEPA programmatic review, NNSA is limited to *no more than* 80 pits per year *at LANL*, and only through utilizing a lesser “routine” production capability for 50 pits per year in “multiple shift operations.” Since it is clear that the new proposed production rate of “no fewer than” 80 pits per year will *not* be achieved via multiple shift operation of a smaller “routine” capability *at LANL*, this too becomes another factor triggering the Court’s requirement for a Supplemental PEIS. As the principle plaintiffs’ counsel on the case, NRDC intends to defend this hard-won decision.

⁵ *Natural Resources Defense Council v. Pena*, 20 F.Supp.2d 45, 50 (D.D.C. 1998), <https://law.justia.com/cases/federal/district-courts/FSupp2/20/45/2423390/>

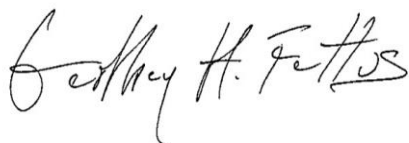
C. Conclusion

To close, in analogous circumstances, DOE and NNSA have undertaken PEISs in the past, providing ample legal precedent for why NNSA must prepare a new PEIS now. For example, in 1996, DOE undertook a *Stockpile Stewardship and Management PEIS* to consider, *inter alia*, relocating pit production to LANL. Likewise, in 2003, DOE prepared (but never finalized) a *Modern Pit Facility Supplemental PEIS* to analyze a possible increase in the rate of plutonium pit production and evaluate potential alternative sites. Similarly, in 2006, DOE undertook a *Complex 2030 Supplemental PEIS* to consider the modernization of the U.S. nuclear weapons program. And most recently, in 2008, the agencies undertook a *Complex Transformation Supplemental PEIS* in order to analyze alternatives for the modernization of the U.S. nuclear weapons program, including expanded plutonium pit production.

Because NNSA's plans and circumstances at both LANL and SRS have changed significantly in the 11 years since it last undertook NEPA programmatic analysis of this issue—and these now clearly exceed the boundaries established by Court order in 1998—the agency *must* prepare a timely Supplemental PEIS “prior to taking any action that would commit DOE resources to detailed engineering design, testing, procurement, or installment of pit production capability” that goes beyond “fabrication at LANL of 50 pits per year under routine conditions, and 80 pits per year under multiple shift operations.”

Indeed, by undertaking or preparing to undertake “detailed” engineering design for pit production in a “repurposed” MOX plutonium fuel facility at SRS—before completing the required Supplemental PEIS—NNSA flirts with actual or anticipatory breach of the 1998 Court Order. We would be happy to meet with relevant DOE staff and decisionmakers in order to assist the Department in its efforts to find a lawful course that complies with its NEPA obligations.

Respectfully submitted,



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Savannah River Site Watch

August 12, 2019

Ms. Jennifer Nelson,
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Aiken, SC 29802
By email to: NEPA-SRS@srs.gov

Re: Comments on NNSA's Draft Supplement Analysis of the 2008 Complex Transformation PEIS that seeks to raise plutonium pit production from 20 pits per year to more than 80, via use of Plutonium Bomb Plant (PBP) at SRS

Dear NEPA Document Manager:

These comments - via email and attached - are being submitted on behalf of Savannah River Site Watch, a duly registered non-profit organization that focuses on policies of the U.S. Department of Energy, with a primary focus on the Savannah River Site.

As the draft Supplement Analysis is deficient and offers no technical justification for the dramatic 400% shift in pit-production capacity requirements. I request that a new, legally mandated Programmatic Environmental Impact Statement, to supplement the 2008 Complex Transformation PEIS, be prepared. The draft Supplement Analysis fails to properly review these key matters outlined below, as required by NEPA.

If a determination is made that no new, required PEIS is to be prepared then I request that NNSA halt the entire NEPA review process for expanded pit production.

First, I request that a nuclear non-proliferation assessment be prepared on production of new pits and the nuclear warheads that would be outfitted with such pits. As it appears that all new pits would go to a single warhead - W87-1-like warhead - there are proliferation concerns with deployment of such a new warhead and such concerns, including compliance with the Treaty on the Nonproliferation of Nuclear Weapons, must be analyzed in an assessment attached to all relevant NEPA documents and the PEIS. Likewise, steps that NNSA could take to avoid manufacturing pits for an unneeded warhead must be presented.

Second, I request a full assessment of the ability of staff at the Savannah River Site to produce pits in the proposed Plutonium Bomb Plant (PBP), a project unfunded and unauthorized by Congress. SRS has no expertise in alloying plutonium with gallium nor with handling and casting liquid plutonium. Creating such pit-fabrication expertise from point zero will be a long, arduous and uncertain path with unknown outcome. As SRS only has some expertise in storing plutonium, processing plutonium into oxide (with such work now terminated) and downblending plutonium for disposal in the Waste Isolation Pilot Plant, it totally lacks any experience related to pit fabrication. Claims that SRS can develop expertise and begin pit production must be substantiated via technical documents that are part of the NEPA and PEIS record. As it stands now, the record shows that SRS would be unable to produce pits as presented by DOE's ambitious proposal.

Third, I request that the NEPA and PEIS record include a thorough analysis of the state of construction and design at the Mixed Oxide Fuel Fabrication Facility (MFF) and what it would take to convert the poorly constructed MOX plant to a Plutonium Bomb Plant, including costs. The MOX plant option for pit production has never been reviewed in depth and that analysis must initially be done via a new PEIS, followed by a site-specific EIS. The analysis of the MOX plant must include status of embedded and through-wall components and if such components were installed correctly and if they meet design, quality control and operational standards. And, given the botched MOX plant construction job, will contractors CB&I Areva MOX Services or contractors affiliated with them be used for the pit mission? (Such contractors and their NNSA managers, who failed in their mission, should be banned from further work on construction projects for NNSA or DOE.) As there is no documented evidence that the MOX plant could be converted to pit production, this analysis must include professional analyses certified by nuclear and construction engineers. Unsubstantiated claims that the MOX plant can be used for pit production will undermine any DOE proposal for use of the MOX plant for pit production.

Additionally, the cost and difficulty of converting the partially finished MOX plant to a permanent Category-1 fissile material storage and processing facility must be discussed in depth. Currently the K-Area plutonium storage facility is the only permanent Cat-1 facility at SRS and creation of a second facility will be costly and pose security and environmental risks that must be analyzed.

Additionally, no reuse of the MOX plant should be finalized until there are full investigations into waste, fraud, abuse and mismanagement with the MOX project and the bungled construction of the Mixed Oxide Fuel Fabrication Facility. Investigations by Congress and government agencies into the MOX debacle are essential before any reuse of the MOX plant can even be considered. Simply sweeping the problems with the MOX debacle under the rug will be a DOE recipe for failure of any pursuit of a Plutonium Bomb Plant at SRS.

Fourth, the role of the mothballed Waste Solidification Building (WSB) at SRS must be fully analyzed and presented in the PEIS. The WSB was built to handle MOX waste and not pit waste. The construction status of the building has also been questioned and there must be a fully certified (by engineers) analysis included for the NEPA and PEIS record. Simple claims that the WSB can be used for plutonium and chemical waste processing will be insufficient to make the case for such use. The NEPA and PEIS documents must show disposal paths out of the WSB, if it were to be used, describing in detail both off-site and on-site disposition methods.

The stated purpose of the National Nuclear Security Administration's (NNSA's) *Supplement Analysis of the 2008 Complex Transformation Programmatic Environmental Impact Statement* is:

“... to allow NNSA to determine whether, prior to proceeding with the effort to produce plutonium pits at a rate of no fewer than 80 pits per year by 2030, the existing Complex Transformation SPEIS should be supplemented, a new environmental impact statement should be prepared, or no further *National Environmental Policy Act* (NEPA) analysis is required. The Draft SA [Supplement Analysis] preliminarily concludes that further NEPA documentation at a programmatic level is not required; however, NNSA will consider comments on this Draft SA and publish a Final SA.”

To meet legal NEPA requirements NNSA must complete a new programmatic environmental impact statement (PEIS) on its nation-wide plans for expanded production of plutonium pits, the radioactive cores of nuclear weapons. Simply amending the Record of Decision for the 2008 Complex Transformation (CT) PEIS, as NNSA plans to do, will not be sufficient to formally raise the level of production from the level of 20 pits per year at the Los Alamos National Laboratory (LANL) sanctioned by the original 1996 Stockpile Stewardship and Management PEIS. This is because of numerous changed circumstances and much new information and an existing 1998 court order that requires DOE to prepare a supplemental PEIS when it plans to produce more than 80 pits per year.

Further, a new PEIS is required because NNSA proposes simultaneous pit production at two sites, which the Complex Transformation PEIS never considered. NNSA's new plan involves the production of at least 30 pits per year at the Los Alamos Lab and at least fifty pits per year at the Savannah River Site (SRS), which would be a completely new mission there. This is inherently a "programmatic" decision, sufficient justification by itself for a new PEIS.

NNSA plans to establish pit production at SRS by "repurposing" the failed MOX Fuel Fabrication Facility (MFFF). To use the Department of Energy's own NEPA regulatory language, a new PEIS is required because the expansion of pit production at LANL and the repurposing of the MOX Facility at SRS are "systematic and connected agency decisions" that are clearly "connected," "cumulative," and "similar" actions, therefore "their environmental effects must be considered in a single impact statement." Accordingly, DOE's own NEPA regulations require the preparation of a PEIS.

Moreover, convincing conclusions by independent experts further reinforce the need for full programmatic review. For example, the Institute for Defense Analysis recently concluded that NNSA's plans for expanded plutonium pit production will be "extremely challenging" and calculated that NNSA has never completed a facility costing more than \$750 million in less than 16 years. Nevertheless, NNSA improbably claims pit production will begin at SRS by 2030. This is throwing bad money after bad money given the 7 billion in taxpayer dollars that NNSA has already wasted on the MOX Facility.

The Supplement Analysis claims that the drivers and requirements for expanded plutonium pit production have remained the same. To the contrary, they have substantially changed, further underlining the need for a new PEIS. Why is no pit production scheduled to maintain the safety and reliability of the existing nuclear weapons stockpile? Instead, NNSA's changing rationale for expanded production has been for speculative new-design nuclear weapons that end up being canceled, such as the past "Reliable Replacement Warhead" and "Interoperable Warhead." It is imperative that a new PEIS clearly and consistently define the specific needs and requirements for expanded plutonium pit production, especially given that up to 20,000 existing pits are already stored at the Pantex Plant near Amarillo, TX, and independent experts have found that existing pits have reliable lifetimes of more than a century.

Further, NNSA does not plan to produce exact replicas of existing pits. Therefore, a new PEIS should analyze how heavily modified pit designs could undermine confidence in stockpile safety and reliability, thereby possibly degrading national security and prompting a return to full-scale testing. A new PEIS must instead consider the extensive reuse of existing plutonium pits as a serious alternative to expanded pit production that is less harmful to the environment and will save taxpayers' money.

A new PEIS is also needed to analyze the occupational and public risks of repeated, chronic nuclear criticality safety infractions at LANL and how to resolve them. By extension this applies to any future pit production at SRS as well. A genuine, comprehensive nuclear safety regime needs to be instituted at a programmatic level that must be analyzed in a new PEIS. It must also fully review potential risks to the public by apparent systemic attempts by DOE to degrade institutional safety, such as relaxing internal nuclear safety rules and restricting access of the independent Defense Nuclear Facilities Safety Board (DNFSB). The oversight role of the DNFSB in planning and possible implementation of pit production must be analyzed and presented.

The risks of increased transport of plutonium between NNSA sites must be analyzed in a new PEIS. The only repository for transuranic radioactive wastes from plutonium pit production is the Waste Isolation Pilot Plant (WIPP) in southern New Mexico. New programmatic review is required to analyze all of the increasing radioactive waste disposal demands on WIPP, which include wastes from future expanded pit production, 34 tons of existing "surplus" plutonium and possible disposal by DOE of some reclassified high-level radioactive wastes. A new PEIS must guarantee that all future transuranic waste packaging and shipping will be safe, given that LANL sent an improperly prepared waste drum to WIPP that ruptured and closed that facility for nearly 3 years, costing the American taxpayer \$3 billion to reopen.

The new PEIS must be completely free of predetermination. NNSA must demonstrate that it can pursue an impartial process without predetermination that leads to an objective decision to repurpose the MOX Facility or not. The new PEIS must seriously analyze its as-built quality and demonstrate that it indeed can be “repurposed” for expanded plutonium pit production. The extent of problems with construction of the MOX Facility, underscored by the government’s false-claims lawsuit against the MOX contractor, may well preclude its reuse for pit production.

The new PEIS should analyze the impacts of diverting taxpayer dollars to new nuclear weapons facilities instead of cleaning up the massive environmental damage caused by past research and production. What are the long-term public health and environmental effects of leaving radioactive and toxic contaminants that can pollute precious water resources, while new, unnecessary, and costly nuclear facilities that will produce more contaminants are being built? To reiterate, given the deteriorating arms control climate and a potential new nuclear arms race, a new PEIS must analyze the potentially adverse impacts of expanding plutonium pit production on the global nonproliferation regime. This includes any adverse impacts on the NonProliferation Treaty which the U.S. signed in 1970 but has never honored its mandate to enter into serious negotiations leading to global nuclear disarmament.

All analyses in a new PEIS must address the risk to the most vulnerable, that is pregnant women, fetuses, children and the elderly, rather than the standard, less vulnerable “Reference Man.” The comment period for a draft PEIS should be at least 120 days. All cited reference documents in the final SA and the draft PEIS must should be made immediately accessible online upon the release of the documents.

I request to be placed on any email lists for the status of NEPA and other NNSA documents on pit production: srswatch@gmail.com.

Sincerely,

Tom Clements
Director, Savannah River Site Watch
1112 Florence Street
Columbia, SC 29201

Tri-Valley CAREs

Communities Against a Radioactive Environment



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August 12, 2019

Ms. Jennifer Nelson
NEPA Document Manager
National Nuclear Security Administration (NNSA)
Savannah River Field Office
P.O. Box A, Aiken, SC 29802

Submitted by email to NNSA at: NEPA-SRS@srs.gov
Please acknowledge receipt to: marylia@trivalleycares.org and scott@trivalleycars.org

Re: Tri-Valley CAREs' comments on the National Nuclear Security Administration's Draft Supplement Analysis (SA) of the 2008 Complex Transformation Supplemental PEIS

Dear NEPA Document Manager,

Tri-Valley CAREs is a non-profit organization founded in 1983 by Livermore, California area residents to conduct research, public education and advocacy regarding the potential environmental, health and proliferation impacts of the U.S. nuclear weapons complex with a focus on the activities at Lawrence Livermore National Laboratory (LLNL).

1. Introduction

On June 28, 2019, NNSA published a formal Notice in the Federal Register announcing the availability of a Draft Supplement Analysis (SA) of the 2008 Complex Transformation Supplemental Programmatic Environmental Impact Statement pursuant to the agency's present day plan to expand plutonium pit (bomb core) production from the currently authorized limit of "up to" 20 pits per year to a new limit of 80 pits per year "or more" at two locations that are approximately 1,500 miles apart, the Los Alamos National Laboratory (LANL) in NM and the Savannah River Site (SRS) in SC.

The stated purpose of the NNSA's SA is to determine whether a full programmatic review of increasing plutonium pit production 4-fold or more is required by the National Environmental Policy Act (NEPA). The NNSA's Notice in the Federal Register states: "*The Draft SA concludes that further NEPA documentation at a programmatic level is not required.*" This preliminary determination is flawed and contrary to the letter and spirit of the law.

Tri-Valley CAREs respectfully submits these comments on NNSA's Draft SA and we highlight the agency's legal obligation to conduct a relevant, up to date Programmatic Environmental Impact Statement (PEIS) before taking any further action to increase plutonium pit production.

Due to the highly interconnected nature of the NNSA's currently proposed action as well as the fragmented NEPA process being undertaken, which we believe will serve to avoid the requisite "hard look" at the national program and understate its risks, we append our scoping comment on the SRS EIS (July 25, 2019) and two letters on the subject sent by Tri-Valley CAREs and colleagues (October 31, 2018 and May 17, 2019). These materials should be considered in their entirety as part of Tri-Valley CAREs' comments on the Draft SA.

Tri-Valley CAREs has a history of involvement in the issue of plutonium pit production, including submittal of extensive comments on the 2008 Complex Transformation Supplemental PEIS on which NNSA is now trying to rely. As we detail in the sections that follow, the NNSA's present plans differ significantly from that 2008 document and thus a new Programmatic Environmental Impact Statement and public hearings at potentially affected sites across the country are required.

In addition, Tri-Valley CAREs is a party along with the Natural Resources Defense Council and others to the 1998 Federal Court Order that requires the Department of Energy/NNSA to undertake a fresh supplemental Programmatic Environmental Impact Statement should the agency propose future plutonium pit production that would be in excess of 50 pits per year under routine conditions or 80 pits per year under special conditions of multiple shift operations. The NNSA currently proposes to manufacture 80 pits or more per year under *routine conditions* not only using LANL, which was named in the Order, but now using two sites and clearly exceeding the conditions of the Court Order.

Tri-Valley CAREs stands willing to take action as needed to protect and enforce the Court Order specifically as well as NEPA more broadly.

2. NNSA must prepare a PEIS on expanded plutonium pit production and the development of the W87-1 warhead in which the new pits are to be used

The present nationwide program proposed by NNSA to expand plutonium pit production 4-fold or more by 2030 is clearly "connected," "cumulative," and "similar" according the National Environmental Policy Act.

NEPA mandates that agencies conduct a PEIS when there are interconnected environmental impacts from multiple sites. In this instance, the production of 80 or more plutonium pits from the repurposed MOX Facility at Savanna River Site and Los Alamos National Laboratory are connected, and both must be analyzed in a single Programmatic Environmental Impact Statement. So, too, must NNSA include the other DOE sites that would be potentially impacted by the raw materials, wastes, and transportation risks that are inextricably linked to the two-site proposal.

The Agency's reliance on such a huge volume of other NEPA documents, many of which are more than a decade old, does not provide the public and other stakeholders with a reasonable way to analyze the environmental consequences of the proposed action.

Moreover, the decades-old analyses were directed toward buildings that were never built and projects that have long been abandoned, including for example the Consolidated Plutonium Center, the Consolidated Nuclear Production Center and the Chemistry and Metallurgy Research Replacement (CMRR)-Nuclear Facility. The NNSA's current proposal differs significantly from what was considered in 2008.

At LANL, the new CMRR- Nuclear Facility is not being built and the increased pit production would be shoehorned into an old building (PF4) and a radiological lab originally built for a more narrow range of operations that currently planned.

Notably, the Complex Transformation Supplemental PEIS never analyzed a two-site scenario as is now being planned. The new proposal clearly exceeds the risks and “risk boundaries” of the 2008 document. The public deserves – and NEPA demands – a thoroughgoing analysis of the two-site proposal including at a minimum increased transportation, materials handling at multiple locations, multiple sites with changed waste streams, additional waste management activities at multiple locations, waste disposal in NM at WIPP with some streams now coming across the country from SC, and more. Additionally, the increased risk of a terrorist attack on the shipments of materials and plutonium pits must be analyzed under NEPA with a look to the entire shipping route. None of this was analyzed in the Complex Transformation Supplemental PEIS.

Further, the Draft SA deceptively suggests that in 2008 the agency analyzed a “pit production facility that would use the Mixed Oxide [MOX] Fuel Fabrication Facility (MFFF) and Pit Disassembly and Conversion Facility (PDCF) infrastructure.” Actually, the Complex Transformation Supplemental PEIS only summarily mentioned the prospect of using the MFFF infrastructure. And, the MOX facility today represents yet another profoundly changed circumstance from anything considered in 2008. In 2019, the MFFF is only partially constructed, is the subject of fraud investigation, and may harbor serious safety flaws in its walls and ductwork. A passing mention of MFFF infrastructure in 2008 cannot substitute for a rigorous analysis now.

In sum, while the Complex Transformation Supplemental PEIS – and its 1996 underlying review document - can provide the reader with an interesting walk down memory lane it clearly cannot and does not satisfy the NEPA requirement to analyze the present (i.e., actual) NNSA plan to increase plutonium pit production and its potential risks in sufficient detail to meet the “hard look” standard.

Additionally, if a primary purpose for these plutonium pits is, as noted by NNSA, a new nuclear weapons design, specifically the “W87-1 style warhead” that the Lawrence Livermore National Lab is tasked with developing (see more about this in the following comment), then this warhead, and all of the associated, connected actions (including plutonium pit production), should be analyzed in a fresh PEIS. This proposed weapon program, (the W87-1) has not undergone any specific NEPA review, nor was it ever part of the Complex Transformation Supplemental PEIS.

A PEIS of the proposed W87-1 warhead should analyze the development and testing of the warhead, the plutonium pit production required for the warhead, the manufacturing of the other nuclear and non-nuclear components of the warhead, the waste streams of those facilities and the warhead, transportation of hazardous materials, the impacts of a potential use of the warhead.

These matters must be considered in a fresh nationwide Programmatic Environmental Impact statement, as both the program and the impacts will be borne nationally and at multiple DOE and NNSA sites. We would note further that the PEIS must precede the draft SRS EIS. Anything else is “cart before the horse” and, contrary to NEPA, doing a site-specific review first is likely to prejudice what are properly programmatic decisions.

3. Improper Segmentation, Connected Actions, and Cumulative Impacts

NNSA's plan to produce 80 or more plutonium pits per year relies on two facilities to accomplish the task, SRS, and LANL. SRS is to produce 50 or more plutonium pits annually, and LANL is to produce 30 or more

annually. However, NNSA is proposing to conduct at least three separate studies for its proposed pit production plan. NNSA plans to conduct a solely site-specific Environmental Impact Statement at SRS an unspecified level of review at LANL, and to finalize its Draft Supplement Analysis to the 2008 Complex Transformation Supplemental PEIS. This is an attempt to segment what should be included in one single study. In the case of *Save Barton Creek Ass'n v. Fed. Highway Admin.*, 950 F.2d 1129 (5th Cir. 1992) the court stated that "Segmentation analysis functions to weed out projects which are pretextually segmented, and for which there is no independent reason to exist. When the segmentation project has no independent jurisdiction, no life of its own, or is simply illogical when viewed in isolation, the segmentation will be held invalid."

The Code of Federal Regulations state that "Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.¹" The code further states that actions are connected if they "Cannot or will not proceed unless other actions are taken previously or simultaneously²" or "Are interdependent parts of a larger action and depend on the larger action for their justification."³" The proposed plan by NNSA relies on simultaneous pit production at both sites and would not be able to fulfill the singular goal of 80 pits per year without both facilities being operational. Each facility is an independent part of the larger goal to produce 80 pits a year.

Tri-Valley CAREs also reminds the NNSA of its obligations under NEPA concerning "Cumulative Impacts" of the proposed project. The Council on Environmental Quality provides that NEPA requires the scoping process to address "Cumulative Impacts" of a proposed action by:

- Identifying the significant cumulative effect issues associated with the proposed action and defining the assessment goals
- Establishing the geographic scope for the analysis
- Establishing the time frame for the analysis
- Identifying other actions affecting the resource, ecosystems, and human communities of concern.

How can the cumulative impacts of plutonium pit production be analyzed with the "Hard Look" that NEPA requires if that analysis is segmented into site-specific inquiries rather than as a connected action?

4. Inadequate analysis of Purpose and Need is contrary to NEPA

DOE/NNSA has neither established a clear purpose and need for expanded pit production nor a purpose and need for new nuclear weapons that would require new pits, as mandated by NEPA.

It appears that NNSA is relying on the National Defense Authorization Act of Fiscal Year 2015 and the Nuclear Posture Review of 2018 and a DOE-Department of Defense "joint statement" of May 10, 2018, to make the proposal that production capability of 80 or more pits per year is established by 2030. But what are the 80+ pits per year for? The NEPA process to date has not reviewed or revealed which new or refurbished warheads might need new pits.

¹ 1502.4(a)

² 1508.25(a)(2)

³ 1508.25(a)(3)

A June 4, 2019 article in the Exchange Monitor - *HASC Panel's Bill Could Slow-Roll NNSA's Planned S.C. Pit Plant* - about a House Armed Services Committee hearing - stated that all the new pits would be for a new warhead: "The House panel's pit proposal is part of a broader effort by House Democrats to slow deployment of next-generation, silo-based intercontinental ballistic missiles called Ground-Based Strategic Deterrent. The 80 pits a year NNSA plans to produce by 2030 and beyond are all for the W87-1-style warheads that will tip Ground-Based Strategic Deterrent missiles."

Desire by the weaponeers to produce a new warhead and new pits for it do not justify new pit fabrication facilities. New warheads have proliferation and disarmament implications that have not been analyzed. Nor has the "W87-1-style" warhead been approved by Congress.

Likewise, with up to 20,000 pits in storage at DOE's Pantex site in Texas, NNSA has not disputed that such stored pits can be reused.

In a 2006 "Pit Lifetime" report for DOE by the JASON group of experts, it was stated, "that most plutonium pit types have credible lifetimes of at least 100 years." NNSA has presented nothing to counter this finding in the draft SA, and the JASON study must be made part of the record.

Subsequent to the JASON 2006 "Pit Lifetime" report, Lawrence Livermore National Laboratory published its ongoing research results in an article in *Science & Technology Review* in December 2012 titled, "Plutonium at 150 Years: Going Strong and Aging Gracefully."

The report reads in part: "In 1997, the National Nuclear Security Administration (NNSA) launched a comprehensive study at Lawrence Livermore and Los Alamos national laboratories to examine in detail how plutonium pits age and provide a firmer scientific basis for estimating the service life of these components. The study's results, announced in late 2006, showed that the slow degradation of plutonium in U.S. nuclear weapons would not affect warhead reliability for decades. Independent research teams at the two laboratories performed extensive mechanical testing and laboratory-based experiments on aged samples of a plutonium-239 alloy - plutonium mixed with a small amount of gallium to stabilize the material in its delta phase at room temperature. Alloy samples were taken from 15- to 44-year-old plutonium pits and from plutonium that was artificially aged to 65 years. These tests showed no significant changes in important physical properties such as density and strength. In analyzing the test results, the research teams determined that the minimum lifetime for plutonium pits was at least 85 years - 25 to 40 years longer than previously estimated.

It continues: "Now, six years later, these same naturally aged samples are 50 years old, and the accelerated alloy samples have reached an equivalent age of 150 years. Both sample lots continue to age gracefully, and extremely sensitive tests and high-resolution electron microscope images by Livermore chemists validate the confidence-building conclusions of the earlier study... 'The 2006 report and recent work continue to show no alarming trends and serve to validate our theories about how plutonium ages'..."

Therefore, the scientific discussion regarding the effective "lifetime" of plutonium pits in nuclear weapons ranges from around 100 years to 150 years. This is significant to the NEPA process because it presents a less risky, proven, already-used, less expensive, less polluting alternative to new pit production, namely the "graceful" aging of pits in the first place with "pit reuse" when needed.

How does DOE explain the "purpose and need" for expanded pit production of 80 or more pits per year when pit reuse can be used in many circumstances?

Pit reuse, as we noted, is a proven process undertaken at the Pantex Plant in Texas, where up to 20,000 plutonium pits declared “excess” to the needs of the stockpile are stored. What is NNSA’s explanation of the need for new pit production or why existing pits can’t be reused? We know of no answer to that question that doesn’t start and end with the “elective development of new warheads that contain novel design pits.”

Additionally, new pits in new warheads present formidable weapons certification prospects without new nuclear explosive testing at some yield. The PEIS must evaluate the fact that these new pits from SRS and LANL may serve as a rationale for renewed underground testing of nuclear weapons in the United States. Additionally, the analysis should evaluate the risk of nuclear testing proliferating to other nuclear states if such testing were to be renewed in the United States.

Does NNSA foresee a need to test new design pits in new design weapons via underground nuclear testing in order to certify them for the stockpile?

NNSA has said it needs the capacity to produce 80 "or more" pits per year or "no fewer" than 80 pits per year. This has also been called a "surge capacity." What does this mean? How many actual pits does NNSA intend to produce per year or what actual capacity does NNSA intend to establish? What types of pits would be made by the new pit-production capacity?

As the U.S. has around 1750 deployed weapons and another 2000 in active reserve, what is the need for new nuclear weapons that would use new pits? How will the deployment of new weapons with new pits in them meet the legal obligations of the nuclear Non-Proliferation Treaty for the disarmament of nuclear weapons?

4. Significant environmental and operational changes at LANL have occurred since the 2008 Complex Transformation PEIS

Our appended “scoping” comment on pit production at SRS contains additional questions and comments. Additionally, there have been significant changes at LANL since the 2008 document. In 2011, the major Los Conchas Wildfire came within 13 miles of the LANL facility in a mere 24 hours. As climate change and global warming continue to increase the rate of wildfires, the risk to the facility rises as well. Has the potential impact of a fire or other natural disaster impacting the facility been studied and considered?

The 2008 Supplemental PEIS did not – and could not - consider a more recent track record of nuclear safety infractions at the site, which led to nearly a four-year period in which major plutonium operations were halted. This is a new and changed circumstance. Yet, the Draft SA issued by NNSA outright dismisses the record of accidents. The decision to ignore the troubled history at LANL demonstrates a lack of foresight by NNSA. Why is the history of past incidents and problems being dismissed? These serious incidents contain important lessons for the future that should be captured in a new PEIS. For example, their examination in a PEIS now may point the way toward specific mitigation measures that have not yet been considered (because the analysis has not been done).

5. Challenges of plutonium handling and pit production at LANL are significant

Los Alamos National Laboratory will be tasked with producing 30 or more pits per year. However, this facility has never produced more than 11 pits a year, and, as mentioned above, has had numerous issues and safety concerns.

What is the risk to workers and the public from accidents involving plutonium? What are the potential risks to the environment from a plutonium accident?

How is each facility expected to meet these ambitious new production goals when LANL has never met the authorized limit of 20 pits per year and SRS has never done this task period? What are the risks of proceeding with a 400% or more increase in pit production in one fell swoop when a reasonable alternative might be to ensure that LANL could, if needed, safely produce the “up to” 20 pits per year that has been authorized at LANL since the 1996 Stockpile Stewardship and Management PEIS Record of Decision and was reaffirmed in the 2008 Complex Transformation Supplemental PEIS?

6. NEPA implications of the Institute for Defense Analyses’ report to the Defense Department on NNSA’s pit production plan.

This spring Tri-Valley CAREs and several colleague groups obtained the unclassified executive summary of a report prepared by the Institute for Defense Analyses (IDA) for the Defense Department on NNSA’s proposal to expand plutonium pit production. It is attached and should be considered in its entirety as part of Tri-Valley CAREs comment on the Draft SA. In its conclusion it stated (Note: bolding here is for emphasis):

Summary of Main Findings

1. Eventually achieving a production rate of 80 ppy [pits per year] is possible for all options considered by the EA [Engineering Assessment], but will be **extremely challenging**.
2. **No available option can be expected to provide 80 ppy by 2030.** DoD should evaluate how to best respond to this requirement shortfall.
3. Trying to increase production at PF-4 at LANL by installing additional equipment and operating a second shift **is very high risk**.
4. **Effort to identify and address risks is underway, but is far from complete.**
5. Strategies identified by NNSA to shorten schedules will increase the risks of schedule slip, cost growth, and cancellation.

The IDA report reveals that some level of “effort” to identify risks is underway but is “far from complete”. This cries out for a PEIS! Further, it suggests that any premature “hurry up” could have unintended consequences that are both hazardous and directly relevant to NEPA in that the law is intended to forestall such risks. It is also worth noting that a central conclusion of the IDA report is that “no available option can be expected to provide 80 ppy by 2030.”

Yet, the NNSA’s Draft SA, prepared months after the agency had the IDA report in hand, proposes to move swiftly toward the option of increasing plutonium pit production by 400% or more by the Year 2030 using two locations, LANL and SRS. (Note that the IDA report included that two-site option and said it’s not feasible by 2030).

Why do the NNSA NEPA review documents including the Draft SA continue to say “by 2030”? What corners is NNSA willing to cut to try to make it happen? It’s frightening to consider the hazards to human health and the environment stemming from this scenario.

The IDA report underscores why a fresh PEIS that takes the required “hard look” at the entire program is so necessary at this time.

7. This proposed project is a huge waste of tax-payer funds

NNSA's Fiscal Year 2020 budget request and other documents make clear that future pit production will not be to maintain the safety and reliability of the existing nuclear weapons stockpile. Instead, future production will be for modified pit designs for new-design nuclear weapons, which will be financially costly and have negative nuclear non-proliferation implications, as we noted above. Given the current moratorium on explosive testing of nuclear weapons, those new-design pits cannot be fully explosively tested or alternatively, could prompt the U.S. to return to testing in order to certify them for the stockpile, which would have serious international proliferation consequences.

Again, up to 20,000 plutonium pits declared “excess” to stockpile needs already exist and are stored at DOE's Pantex site in Texas. As noted, independent experts (the JASON) have concluded that modern pits have reliable lifetimes of a century or more. LLNL's more recent research pushes pit lifetimes out further – to around 150 years. Given a reduced cost option available to NNSA here, a fresh PEIS needs to fully and concretely justify expanded plutonium pit production and discuss reuse of stored pits.

8. Waste issues and all exposure scenarios must be covered in a PEIS

The draft EIS needs to disclose all radioactive and toxic waste streams and how they will be disposed of. All analyses in the draft EIS must address the health risk of waste streams and plutonium management (including criticality risks) to the most vulnerable, that is to pregnant women, fetuses, children and the elderly, rather than the standard, less vulnerable "Reference Man."

9. Conclusion

NEPA is intended to serve decision-makers, be they in agencies or elected officials, and the public alike. It is not merely a means of sharing information – as important as that may be - it is intended to involve diverse communities in environmental decisions with the ideal that better decisions will then result.

Tri-Valley CAREs believes that the proper application of NEPA, DOE/NNSA will reach the conclusion that superior alternatives to its current plan exist and should be pursued. To be clear, the proper application of NEPA requires a fresh PEIS rather than a fragmented, piecemeal approach.

At SRS with respect to establishing pit production at a rate of 50 or more per year, that review could determine that pit production there is risky and unwarranted. At LANL, proper NEPA analysis may result in a decision to solve the existing problems first, forswearing at least any expansion of capacity.

It is important for the public, Congress and DOE/NNSA to understand that there is a history of using NEPA as intended. The NEPA.gov website in its explanation of how decision-making is supposed to work under the law has chosen to highlight an example from DOE. We at Tri-Valley CAREs remember the specifics well.

Here is how NEPA.gov states it... “NEPA has been effective in providing public officials with the information they need to make better decisions. “Thank God for NEPA because there were so many pressures to make a selection for a technology that might have been forced upon us and that would have been wrong for the country... .’ Then-Secretary of Energy James Watkins made this statement before the House Armed Services Committee in 1992 in regards to his decision to forgo proposed production

technologies. The environmental review process informed him, and other decision makers, that this technology would not align with the Department of Energy's departure from an emphasis on weapons productions towards an emphasis on cleanup of production facilities.”

The path is clear. Today, the DOE should consider carefully that expanded pit production does not align with its ongoing emphasis on cleanup of contaminated facilities. Indeed, expanded pit production would contradict the NEPA considerations employed by Admiral Watkins during his tenure as Secretary of Energy.

Tri-Valley CAREs calls on the Secretary of Energy, the NNSA Administrator, and other agency leadership to step up and undertake a new PEIS with public hearings across the country at potentially affected sites. Its end result may be a decision to forgo expanded pit production as unnecessary, costly, proliferation-provocative and polluting. First, at a minimum, the review must be done!

Finally, all draft and/or final reference documents used so far and in the future conduct of a fresh PEIS must be made accessible online.

Sincerely,

Marylia Kelley
Executive Director
Tri-Valley CAREs

Scott Yundt
Staff Attorney
Tri-Valley CAREs