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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.<sup>1</sup> 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...<sup>2</sup>

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.<sup>3</sup> A PEIS should be used to fully identify and begin to successfully address all program risks, including budget and schedule. Further, both the

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

<sup>2</sup> Ibid., p. vi.

<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup>

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).<sup>6</sup>

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<sup>4</sup> 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.

<sup>5</sup> *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>.

<sup>6</sup> 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.<sup>7</sup>

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

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<sup>7</sup> 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).<sup>8</sup>

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.<sup>9</sup>

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.<sup>10</sup> It is imperative that a supplemental PEIS clearly defines the specific need for expanded plutonium pit production.

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

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

<sup>9</sup> 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>

<sup>10</sup> 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](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.<sup>11</sup>

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.<sup>12</sup>

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.

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

<sup>12</sup> 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.<sup>13</sup>

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.

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<sup>13</sup> 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.<sup>14</sup>

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”<sup>15</sup>

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

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<sup>14</sup> Ibid., p. 2.

<sup>15</sup> 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.<sup>16</sup>

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.<sup>17</sup> 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.

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<sup>16</sup> *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/>

<sup>17</sup> 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.”<sup>18</sup>

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).”<sup>19</sup> 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 Map<sup>20</sup> 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

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<sup>18</sup> *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>

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

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

March 2002, there were eight earthquakes.<sup>21</sup> Moreover, there was a magnitude 4.1 earthquake near SRS on Valentine's Day, 2014.<sup>22</sup>

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.

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<sup>21</sup> 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](https://www.aikenstandard.com/news/savannah-river-site-monitors-activity-quake-shakes-aiken-county/article_e15ca9b8-2aa7-57e0-8d67-baf84abd66a5.html)

<sup>22</sup> <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 A**

**May 17, 2019 Letter to NNSA Administrator on the Need for a Programmatic  
Environmental Impact Statement on Expanded Plutonium Pit Production**

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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.<sup>1</sup> 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.<sup>2</sup> 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

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<sup>1</sup> 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>

<sup>2</sup> 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.<sup>3</sup>

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.<sup>4</sup> 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.<sup>5</sup> 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).<sup>6</sup> 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.<sup>7</sup>

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<sup>3</sup> 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](https://nukewatch.org/newsite/wp-content/uploads/2019/03/FINAL-Pu-Pit-Production-EA-Results-05.14.18_Unclassified.pdf)

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

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

<sup>6</sup> A redacted version of this DOE Report is available at [http://www.lasg.org/MPF2/documents/NNSA\\_PuPitAoA\\_Oct2017\\_redacted.pdf](http://www.lasg.org/MPF2/documents/NNSA_PuPitAoA_Oct2017_redacted.pdf)

<sup>7</sup> 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](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.<sup>8</sup>

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.<sup>9</sup> 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.<sup>10</sup>

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

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<sup>8</sup> *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](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).

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

<sup>10</sup> 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.<sup>11</sup> 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.

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<sup>11</sup> This NNSA Engineering Assessment is available at [https://www.lasg.org/MPF2/documents/NNSA\\_PuPitEA\\_Rev2\\_20April2018-redacted.pdf](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.<sup>12</sup> 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*.<sup>13</sup>

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.

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<sup>12</sup> This DOE Fact Sheet is available at [https://www.srs.gov/general/news/factsheets/srs\\_overview.pdf](https://www.srs.gov/general/news/factsheets/srs_overview.pdf)

<sup>13</sup> 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.<sup>14</sup> Likewise, the nearby city of Augusta, Georgia also contains numerous areas listed on the National Register of Historic Places.<sup>15</sup> 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).<sup>16</sup>

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.<sup>17</sup>

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.

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<sup>14</sup> 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).

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

<sup>16</sup> 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.

<sup>17</sup> 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.”<sup>18</sup>

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

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<sup>18</sup> 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.*<sup>19</sup>

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.<sup>20</sup> 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.<sup>21</sup> Although it is not entirely clear how

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<sup>19</sup> 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.

<sup>20</sup> 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/>

<sup>21</sup> See [https://www.aikenstandard.com/news/srns-tasked-with-initial-work-for-savannah-river-pit-production/article\\_e3f15ab0-15ec-11e9-805c-d36536fe2d31.html](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.<sup>22</sup>

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

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<sup>22</sup> 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  
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Mr. Brian Costner, DOE NEPA Office  
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