

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
AIKEN DIVISION**

SAVANNAH RIVER SITE WATCH, TOM)
CLEMENTS, THE GULLAH/GEECHEE SEA)
ISLAND COALITION, NUCLEAR WATCH)
NEW MEXICO, and TRI-VALLEY)
COMMUNITIES AGAINST A RADIOACTIVE)
ENVIRONMENT,)

No. 1:21-cv-01942-MGL

Plaintiffs,)

v.)

UNITED STATES DEPARTMENT OF)
ENERGY, JENNIFER GRANHOLM, *in her*)
official capacity as the Secretary,)
NATIONAL NUCLEAR SECURITY)
ADMINISTRATION, and JILL HRUBY, *in her*)
official capacity as Administrator,)

Defendants.)

_____)

PLAINTIFFS’ INITIAL BRIEF

Plaintiffs, Savannah River Site Watch, Tom Clements, The Gullah/Geechee Sea Island Coalition, Nuclear Watch New Mexico and Tri-Valley Communities Against a Radioactive Environment “Plaintiffs” hereby submit their Initial Brief pursuant to the Sixth Amended Scheduling Order. ECF No. 186.

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TABLE OF ABBREVIATIONS

AROD	Amended Record of Decision
CT SPIES	Complex Transformation Supplemental Programmatic Environmental Impact Statement
DOE	Department of Energy
EA	Environmental Assessment
EIS	Environmental Impact Statement
GAO	Government Accountability Office
HEU	Highly Enriched Uranium
LANL	Los Alamos National Laboratory
MLLW	Mixed Low-Level Radioactive Waste
MOX facility	Mixed Oxide Fuel Fabrication Facility
NAS	National Academy of Sciences, Engineering, and Medicine
NNSA	National Nuclear Security Administration
NNSS	Nevada National Security Site
PEIS	Programmatic Environmental Impact Statement
ROD	Record of Decision
SA	Supplement Analysis
SRPPF	Savannah River Plutonium Processing Facility
SRS	Savannah River Site
TRU	Transuranic Waste
WIPP	Waste Isolation Pilot Plant

SUMMARY OF ARGUMENT

NEPA requires federal agencies to take a hard look at the environmental consequences of significant governmental actions. If, after preparing an EIS, new information or changed circumstances arise, NEPA requires the agencies to supplement the existing environmental impact statement or to prepare a new environmental impact statement so that the new information or changed circumstances may be addressed.

Defendants seek the ability to embark on a project that will last at least 50 years, that will produce some of the most dangerous and toxic waste humanity is capable of creating in multiple states, and that waste will last millennia? To say nothing of creating components for weapons that could annihilate the human race. Given the obvious stakes, this is not a typical NEPA inquiry in which a project may proceed over a few years and then be concluded with minimal enduring environmental effects.

In this case, independent experts who report to Congress used Defendants' own projections and concluded that the only repository for the hazardous waste this scheme will create over several decades will have its capacity exceeded within that time frame. Waste from other projects throughout the country also depends upon the ability to dispose of certain waste at the Waste Isolation Pilot Plant. If that facility is not available, there is simply nowhere for the highly dangerous waste to go. The Defendants have not acknowledged that WIPP capacity will be exceeded during the lifespan of this project. Instead, Defendants have focused on their ability to give "priority" to "pit waste" for disposal at WIPP.

Defendants have also been presented with information about potentially deadly radiation exposures for those in the vicinity of certain wastes that are generated by producing plutonium

pits. The potential radiation levels both to workers and the public far exceed what has previously been evaluated and are nowhere addressed in any of the analyses Defendants conducted.

The dual site pit production scheme is not an alternative that was previously evaluated by Defendants so that the public could provide comments on alternatives to that alternative. Nor was the public allowed to comment or offer information about the relative benefits or detriments in selecting any particular site or sites for a dual site pit production project. This is particularly problematic when producing pits at one location, SRS, generates demonstrably more dangerous waste on a per pit basis than it will at another site. Yet, the majority of pit production has been slated for SRS which, in addition to being unable to recover americium-241, a radioactive isotope that creates much more waste for disposal, has never been involved in pit construction before, will require the redesign of a facility that was not intended to be used for that purpose and which is the subject of allegations of fraud in its construction and which will take a considerable amount of time to accomplish.

The amount of time both for pit production to begin and how long it may continue is important because, as mentioned before, the capacity of the Waste Isolation Pilot Plant is projected to be exceeded even if the pit production plan goes as well as possible.

FACTUAL BACKGROUND

The parties have already filed a lengthy Joint Statement of Facts and Plaintiffs incorporate those statements herein by reference. ECF No. 187. Therefore, Plaintiffs will not repeat the vast majority of those facts but Plaintiffs will provide a more concise summary of the pertinent facts to provide context for their argument. Plaintiffs will also relate additional facts that were not included in the prior filing.

Initial Pit Production Evaluation and Alternatives Considered

While pit production, to varying degrees, occurred well before its issuance, the last programmatic evaluation that included pit production was the 2008 CT SPEIS. The 2008 CT SPEIS evaluated “alternatives for transforming the nuclear weapons complex (Complex) into a smaller, more efficient enterprise.” ECF No. 54-8, CT SPEIS_24665. One of the purposes of NNSA’s proposed actions identified in the 2008 CT SPEIS was “consolidating Category I/II special nuclear material (SNM) at fewer sites and locations within sites to reduce risks and safeguard costs.” *Id.* at CT SPEIS_24694. Another purpose was to “create a more responsive nuclear weapons infrastructure that is cost-effective.” *Id.*

At the programmatic level, the 2008 CT SPEIS evaluated four potential alternatives for the pit program: (i) a No Action Alternative; (ii) a Distributed Centers of Excellence (“DCE”) Alternative; (iii) a Consolidated Centers of Excellence Alternative; and (iv) a Capability Based Alternative. ECF No. 144-5, CT SPEIS_03431—CT SPEIS_03432. The DCE Alternative envisioned a consolidated plutonium center for research and development, storage, processing, and manufacture of plutonium pits. ECF No. 144-5, CT SPEIS_03406; *see also* ECF No. 144-5, CT SPEIS_03431. None of the other contemplated alternatives considered ongoing pit production at two separate sites. ECF No. 54-8, CT SPEIS_24719-721. The consolidated plutonium center alternative considered pit production “at one of the following sites – Los Alamos, NTS, Pantex, SRS [Savannah River], or Y-12.” ECF No. 54-8, CT SPEIS_24719. Under the Consolidated Centers of Excellence alternative, a consolidated nuclear production center “could be established at Los Alamos, NTS, Pantex, SRS, or Y-12.” *Id.* at CT SPEIS_24720. The Capability-Based Alternative simply had pit production at LANL not to be expanded beyond producing 50 pits per year. *Id.* at CT SPEIS_24719, 24781.

Consequently, in discussing formulation of alternatives, the CT SPEIS stated that “NNSA developed a range of reasonable alternatives that could reduce in size, capacity, number of sites with Category I/II SNM (and locations of Category I/II SNM within sites), and eliminate redundant activities.” ECF No. 54-8, CT SPEIS_24718.

In the 2008 CT SPEIS ROD, in addition to announcing other programmatic decisions, DOE/NNSA stated that it would maintain plutonium pit production at a rate of 20 pits per year at Los Alamos as of 2008. ECF No. 67-2, CT SPEIS_46518–CT SPEIS_46530; ECF Nos. 124-5 – 125-1, SRS_44600–44612. The 2008 CT SPEIS ROD concluded that the transfer of pit production to another site different from LANL at that time would “pose[] unacceptable programmatic risk” and “would take years to achieve and might be unsuccessful.” *See* ECF No. 67-2, CT SPEIS_46521; ECF No. 124-5, SRS_00044603.

The Supplement Analysis of the 2008 CT SPEIS

The new pit production that is the subject of this litigation relates to pit production for use in the new W81-1 warhead. ECF No. 108-2, SRS_00007250. To that end, the Under Secretary of Defense for Acquisition and Sustainment and the NNSA Administrator issued a Joint Statement on May 10, 2018, describing NNSA’s recommended alternative to pursue a two-site approach to fabricating plutonium pits — (1) to produce a minimum of 50 pits per year at SRS and (2) to produce a minimum of 30 pits per year at Los Alamos. ECF No. 81-1, CT SPEIS_68336.

The 2019 SPEIS SA identifies “[t]he purposes of NNSA’s proposed actions in the [CT] SPEIS[,] includ[ing] maintaining core competencies in nuclear weapons, maintaining a safe and reliable nuclear weapons stockpile, creating a responsive nuclear weapons infrastructure that is cost-effective and has adequate capacity to meet reasonably foreseeable national security requirements.” *Id.* at CT SPEIS_68227. The 2019 SPEIS SA further states, that “the purpose and

need has not changed from the Complex Transformation SPEIS” *Id.* The 2019 SPEIS SA describes the need for pit production as being to “improve the resiliency, flexibility, and redundancy of the Nuclear Security Enterprise by not relying on a single production site.” *Id.* at CT SPEIS_68229.

The SA CT SPEIS did not evaluate the suitability of other alternative sites for pit production beyond SRS and LANL or the feasibility of a single site production. ECF No. 81-1, CT SPEIS_68241; 68261. The CT SPEIS SA purported to address other alternatives in Section 2.3.7 which, in a single paragraph, stated the following: “In considering new circumstances or information relevant to environmental concerns, NNSA considered whether any new sites should be considered for the pit production mission. For example, the AoA Report (see Section 1.4 of this SA) identified the Idaho National Laboratory as a potential site for the pit production mission. Regarding non-NNSA sites, the Complex Transformation SPEIS stated that, ‘NNSA eliminated sites that do not conduct major NNSA program activities, as these sites would further expand the NNSA Complex.’ At the present time, expansion of the NNSA Complex is not contemplated and would raise a host of practical issues which need not be dealt with when there are suitable sites within the Complex.” *Id.* at CT SPEIS_68261. Thus, the SA CT SPEIS did not, in actuality, consider any sites beyond LANL and SRS for a dual site pit production.

Which facilities are engaged in pit production relates to the amount of TRU waste generated on a per-pit basis because, for example, the TRU pit waste at SRS “would include americium-241” which “limits the amount of waste that can be packaged for disposal because of americium’s radioactivity. The americium-241 in the LANL process is recovered as a byproduct.” ECF No. 107-4, SRS_6382.

On November 5, 2020, DOE/NNSA concurrently issued a second amended ROD for the 2008 CT SPEIS and the ROD for the 2020 Savannah River EIS, both of which authorized the production of 50 pits per year (with additional surge capacity) at Savannah River. ECF Nos. 108-2-108-3, SRS_7308-SRS_7311; ECF No. 108-3, SRS_7312-SRS_7315.

The 2008 CT SPEIS does not mention Russian, Chinese, or North Korean development of nuclear weapons as a basis for evaluating pit production alternatives. ECF Nos. 54-7, 54-8, CT SPEIS_24603-CT SPEIS_24904. Instead, the 2008 CT SPEIS states that increased cooperation between the U.S. and Russia is allowing the U.S. to “cut the U.S. nuclear weapons stockpile to about one-half the size in the Strategic Arms Reduction Treaty II.” ECF No. 54-8, CT SPEIS_24668.

The SRS EIS and Additional Alternatives Information

Similarly, the 2020 SRS EIS evaluated the potential environmental impacts of producing 50, 80, and 125 pits per year at Savannah River but did not consider pit production at any other location as an alternative. ECF No. 107-4, SRS_6169. Neither the 1996 SSM PEIS, the 2008 CT SPEIS, nor the LANL SA SWEIS considered alternatives that would result in producing plutonium pits at both LANL and Savannah River Site simultaneously. ECF No. 43-1, CT SPEIS_06189, 06283; ECF No. 44-1, CT SPEIS_06763, 06771-72; ECF No. 43-2, CT SPEIS_06285; ECF No. 89-3, ECF No. 54-8, CT SPEIS_24719-20; 24781; LANL SA_09056, 09067.

In September 2020, the GAO issued a report recounted that “[a]n independent March 2019 study by the Institute for Defense Analyses found that repurposing the SRS facility to produce pits by 2030 would be unprecedented” and “concluded that no available production option considered by NNSA--including the dual pit production plan at LANL and SRS--could be expected to provide 80 pits per year by 2030.” ECF No. 108-2, SRS_7265-7266.

The September 2020 GAO Report, which evaluated NNSA’s W87-1 Modification Program, states that “In the last 2 decades, LANL has twice had to suspend laboratory-wide operations after the discovery of significant safety issues.” ECF No. 108-2, SRS_00007265. The GAO Report also states that “from July 2004 through May 2005, LANL suspended operations to address pervasive safety issues.” *Id.* at SRS_00007265.

The GAO Report states that “[f]rom 2013 through 2016, LANL had to pause operations at PF-4 [a proposed site for pit production] because of concerns with the criticality safety program. A recurrence of such issues prior to the SRS facility becoming operational could affect pit production.” *Id.* at SRS_00007265.

The 2017 NNSA Analysis of Alternatives stated that establishing pit production under any of the alternatives that NNSA considered, including repurposing the facility at SRS, would be unlikely to be at full capacity by 2030 under the most optimistic circumstances. ECF No. 81-5, CT SPEIS_70663-70664. The Analysis of Alternatives stated that “Of the new build alternatives, there is little cost or schedule distinction between the three most promising sites, SRS, LANL, and INL. Therefore, the choice of building site may reasonably be made based on the decisionmaker’s judgment of risks, benefits, and disadvantages.” *Id.* at CT SPEIS_70667.

The Proposed Action’s Generation of Transuranic Waste and Disposal at WIPP

Sites other than LANL and SRS are involved in pit production operations and Table 5-2 of the CT SPEIS SA provides an overview of plutonium-related operations at these sites, including Lawrence Livermore National Laboratory, the Kansas City National Security Complex, the Pantex Plant, and the Waste Isolation Pilot Plant (“WIPP”). ECF No. 81-1, at CT SPEIS_68252–68254.

The WIPP in New Mexico is the only repository for the disposal of transuranic (“TRU”) waste in the United States and it receives TRU waste from DOE and DOE/NNSA facilities

throughout the country for permanent disposal. ECF No. 81-1, at CT SPEIS_68353; CT SPEIS_68289; CT SPEIS_68243. The Waste Isolation Pilot Plant Land Withdrawal Act limits WIPP's disposal capacity to 175,564 cubic meters of TRU waste. ECF No. 161-4 & 135-1, SRS_92709, 92770, 68256. At the time of the December 2019 CT SPEIS SA, DOE had utilized approximately 67,552 cubic meters of TRU waste capacity at WIPP and approximately 108,048 cubic meters of capacity remained available. ECF No. 81-11, CT SPEIS_68256.

Increased pit production will increase TRU waste disposal at WIPP. ECF No. 81-1, CT SPEIS_68254. Since the 2008 CT SPEIS, "there have been numerous changes to [the plutonium disposition] program." ECF No. 81-1, CT SPEIS_68285. In 2016, "DOE decided to prepare and package 6 metric tons of surplus, non-pit plutonium at SRS . . . for disposal at WIPP. The remaining 7.1 metric tons of surplus pit plutonium is likely to be disposed of at WIPP as well. *Id.*

The 2008 CT SPEIS stated that all TRU waste would be packaged and shipped to WIPP. ECF No. 54-8, CT SPEIS_24739; *see also* ECF No. 51-1, CT SPEIS_17773–CT SPEIS_17774.

The 2019 SA CT SPEIS determined that producing 30 pits per year at LANL and 50 at SRS "could generate a maximum of 1,151" cubic meters of "TRU waste annually (consisting of 107 [cubic meters] at LANL and 1,044 [cubic meters] at SRS)...." ECF No. 81-1, CT SPEIS_68289. "The combined TRU waste (1,151 [cubic meters]) generated over 50 years would be 57,550 [cubic meters], which would account for 53 percent of the projected available capacity at WIPP." *Id.* The 2019 SPEIS SA states that "[t]he available capacity at WIPP would be adequate to support pit production TRU wastes[....]" *Id.* at CT SPEIS_68289; CT SPEIS_68280.

The 2019 SPEIS SA addressed temporary storage for TRU waste at LANL, *Id.* at CT SPEIS_68289-90, and SRS, *Id.* at CT SPEIS_68289. It did not, however, evaluate permanent storage of TRU waste at either LANL or SRS. *Id.* at CT SPEIS_68288-89.

Certain TRU waste has already been given priority for disposal at WIPP through various agreements regardless of a desire to prioritize TRU pit waste. A settlement agreement obligates DOE to prioritize TRU waste from Idaho National Laboratory for disposition at WIPP by allocating 55% of all TRU waste shipments to WIPP to INL TRU waste. ECF No. 86-3, LANL SA_01612. The State of South Carolina also has a legally binding settlement with DOE for WIPP to accept certain (non-pit related) waste, and this settlement agreement, as well as the State of Idaho's settlement agreement, were executed following the 2008 CT SPEIS and impact the current and future capacity of waste disposal. ECF No. 84-1, LANL SA_00175.

With respect to additional waste at WIPP, the SA CT SPEIS acknowledges that a “significant change that has occurred regarding plutonium disposition [since the 2008 CT SPEIS] is the cancellation of the construction of the MFFF [or MOX facility] at SRS.” ECF No. 81-1, CT SPEIS_68285. The SA CT SPEIS states that a “dilute and dispose approach” to account for the surplus plutonium waste “could require new, modified, or existing capabilities at Pantex, SRS, LANL, and WIPP. If there were new programmatic decisions regarding surplus plutonium disposition, potential cumulative impacts at all involved sites would be analyzed prior to NNSA making a decision for that program.” *Id.*

The 2020 SRS EIS claims that the “[i]t is estimated that approximately 22,950 cubic meters of TRU waste could be generated over the life of the project (i.e., 50 years) at SRS, assuming a production rate of 50 pits per year. In addition, approximately 5,350 cubic meters of TRU waste could be generated over the life of the project (i.e., 50 years) at LANL, assuming a production rate of 30 pits per year.” ECF No. 107-4, SRS_6381.

According to the 2020 SRS EIS, the SRS annual average would be 459 cubic meters of TRU pit waste which is less than half of what was projected in the SA (1,151 cubic meters per year). ECF No. 107-4, SRS_6307; ECF No. 81-1, CT SPEIS_68252.

Given these altered TRU Waste volumes, the SRS EIS concludes that the total amount of foreseeable TRU waste for disposal at WIPP is 156,560 cubic meters which is below the Land Withdrawal Act TRU total waste volume limit of 175,564 cubic meters. ECF No. 107-4, SRS_6309-13; 6382. The 2020 SRS EIS TRU waste volume is lower than the total waste volumes found in the LANL SA SWEIS which is 96,535 cubic meters for Total Present and Reasonably Foreseeable (Projected) future actions and the total Past, present, and reasonably foreseeable future actions is 166,005 cubic meters. ECF No. 89-3, LANL SA_09132.

In April 2020, the National Academies of Sciences, Engineering, and Medicine issued a report (“NAS report”) recommending that DOE issue a programmatic environmental impact statement to fully address the disposition of 48.2 metric tons of surplus plutonium transuranic waste at WIPP because the programs involved, including pit production waste disposition and WIPP capacity were so interrelated. ECF No. 161-4, SRS_00092786.

The NAS Report states that WIPP “volume limits are still likely to be challenged—in particular with the addition of the pit production TRU wastes. These additional wastes put completion of the DSP-TRU waste emplacement plans at risk.” *Id.* at SRS_00092771. “[T]he data in Table 3-2 and Figure 3-9 make clear that [WIPP Land Withdrawal Act] statutory capacity remains an issue, primarily due to pit production TRU waste.” *Id.* at SRS_00092750, Table 3-2. Using the estimated volumes of TRU waste generated from future pit production provided in the 2019 SA CT SPEIS, the NAS Report stated that the WIPP statutory capacity will be exceeded due,

in part, to 50 years of pit production. *Id.* at SRS_00092749, Figure 3-9; SRS_00092751, Figure 3-2.

The NAS Report states, “[T]he total quantities of surplus plutonium now being considered for disposal at WIPP are far larger than those assessed in the 2015 Supplemental EIS. Additionally, while compliance with the WIPP WAC is required of all TRU waste, the existing WIPP SEIS did not contemplate either the quantity or the character of the surplus plutonium or the future underground configuration. Finally, several processing facility changes must all happen to implement a dilute and dispose program. Recent efforts to expand the nation’s pit production capacity will also impact the sites and facilities that are being proposed in DOE-NNSA’s dilute and dispose plans. There is likelihood of conflicts across programs for human resources, infrastructure, and facilities usage [....]” *Id.* at SRS_00092786.

The 2020 Department of Energy’s Annual Transuranic Waste Inventory Report (“2020 ATWIR”) states that “[t]he inventory data used to develop this report support numerous tasks, such as planned changes, National Environmental Policy Act (NEPA) activities, design changes, identifying waste containing oxyanions and complexing agents, and various analyses such as the WIPP Documented Safety Analysis (DSA).” ECF No. 160-11, at p. 11.

The 2020 ATWIR projects pit TRU waste beyond 2033 to total 48,980 cubic meters with 3,080 cubic meters from LANL (LA-MHD01-Pits) and 45,900 cubic meters from SRS (SR-CH-PP and SR-RH-PP). *Id.* at p. 43-44. The 48,980 cubic meter total does not include pit TRU waste up to 2033 such as that noted in Appendix A. *Id.* at p. 127; *see also id.* at p. 38.

The 2020 ATWIR is dated November 2020 and was signed by the Compliance Certification Manager on November 5, 2020, the same date the SRS EIS ROD and the CT SPEIS second AROD were issued. *Id.* at p. 3. While this report post-dates the SRS EIS, the data was on

hand within the agency before the relevant records of decision were entered. More importantly, the volume projected for TRU pit waste from operations at SRS, 45,900 cubic meters, far exceeds the amount projected in the SRS EIS, 22,950 cubic meters. ECF No. 107-4, SRS_6381

The total amount of TRU pit waste is consistent with the total used by NAS in its 2020 analysis which is 52,794 cubic meters based on the SA CT SPEIS and the 2019 ATWIR. ECF 161-4, SRS_00092749, Table 3-2. As stated earlier, NAS concluded that the total projected TRU waste would exceed WIPP's statutory capacity. *Id.*, at SRS_00092749-51.

The 2019 SPEIS SA does not evaluate long term storage of TRU waste at Los Alamos, Savannah River, or any other site in the event WIPP capacity is reached. ECF No. 81-1 CT SPEIS_68288-89.

Potential Radiation Exposures and new Information About Risks from TRU Waste Storage Explosions

The CT SPEIS projected the average worker dose from pit production at Los Alamos would range from 290-380 mrem/year, depending on the alternative. ECF No. 50-4, CT SPEIS_17234. The average worker dose from pit production at Savannah River would project to be 290 mrem/year. ECF No. 50-5, CT SPEIS_17453.

The 2019 SPEIS SA analyzed the potential human health impacts to workers and the public at Los Alamos from normal operation and potential accidents. The SA CT SPEIS states that “[a]t either LANL or SRS, the [CT] SPEIS estimated 1,150 radiation workers for a total worker dose of 333 person-rem/year, which correlates to 0.20 LCFs annually. Consequently, the total worker dose associated with pit production at LANL and SRS would be less than the impacts presented in the [CT] SPEIS for either site.” ECF No. 81-1, CT SPEIS_68279,

On October 23, 2020, Plaintiffs submitted supplemental comments and objections regarding the SA CT SPEIS, SRS EIS, and LANL SA SWEIS in which they cited, relied upon and provided a copy of the Defense Nuclear Facilities Safety Board (“DNFSB”) entitled “Potential Energetic Chemical Reaction Events Involving Transuranic Waste at Los Alamos National Laboratory, DNFSB, September 2020” (“2020 DNFSB Report”).¹ ECF Nos. 160-7, 160-9. The mission of the DNFSB “shall be to independent analysis, advice, and recommendations to the Secretary of Energy to inform the Secretary as operator and regulator of the defense nuclear facilities of the Department of Energy, in providing adequate protection of public health and safety at such defense nuclear facilities, including with respect to the health and safety of employees and contractors at such facilities.” 42 U.S.C. § 2286(a).

In the 2020 DNFSB Report, DNFSB staff “reviewed the [LANL] PF-4, CMR, TWF, and Area G safety bases and concluded that the hazard and accident analyses do not appropriately analyze energetic chemical reaction hazards involving transuranic waste. As a result, LANL facilities may not have appropriate controls to protect workers and the public.” ECF No. 160-9, at p. 17.

DNFSB staff also concluded that there was potential for lethal radioactive doses of 760 rem to workers at PF-4, where expanded plutonium pit production is planned, and other LANL facilities, and a potential public dose of 24 rem from PF-4. *Id.* at Table 1, Postulated Unmitigated Dose Consequences for an 80 PE-Ci Container, p. 10.

Table 3-1 of the LANL SA discusses potential impacts from “Facility Accidents” and compares the analyses conducted in the 2008 LANL SWEIS to potential impacts from producing

¹ The Defense Nuclear Facilities Safety Board had already provided a copy of the 2020 DNFSB Report to Defendant, Department of Energy on September 24, 2020.

80 or 30 pits per year.. ECF No. 89-3, LANL SA_09088-90. The analysis relates primarily to risks from fires and earthquakes but NNSA acknowledged a 2019 DNFSB safety report that it was “currently reviewing[.]” *Id.* at LANL SA_09088. With respect to potential accidents, the LANL SA did not address the TRU storage issue and instead noted that the 2018 DSA projected potential exposure for a seismic event with a fire “to be 24.2 rem” and stated that producing “80 pits per year would not increase the amount of plutonium available for an accident because the MAR limit would remain the same within PF-4[....]” *Id.* at LANL SA_09089. The LANL SA further stated that “probabilities of risk postulated in the accident scenarios are expected to remain unchanged from those analyzed in the 2008 LANL SWEIS[....]” *Id.* at LANL SA_09090. The two significant radiation release events that spurred the 2020 DNFSB report occurred in 2014 at WIPP and 2018 at INL—well after any 2008 analysis. ECF No. 160-9 at p. 1.

The SRS EIS also examines other operational scenarios with even more pits produced but, again, the potential radiation exposures are average typical exposures. ECF No. 107-4, SRS_00006321-23. The SRS EIS’s examination of radiation exposures through accidents also does not include the same level of exposure doses to the worker or public as that predicted by the DNFSB report. *Id.* at SRS_00006326-27. Nor does the analysis appear to consider the increased probability of a release event similar to those that occurred at WIPP and INL within a recent and short timeframe. *Id.*

The DNFSB concludes as follows:

An energetic chemical reaction event, similar to those that occurred at WIPP and INL, can occur at transuranic waste generation, storage, or processing facilities due to the complex behavior exhibited by waste chemical constituents. Accordingly, each waste generation facility should appropriately analyze such an event in its hazard and accident analyses. From these analyzes, the facility can then implement adequate controls, including multiple layers to provide defense-in-depth, to protect workers and the public.

The Board's staff team reviewed the PF-4, CMR, TWF, and Area G safety bases and concluded that the hazard and accident analyses do not appropriately analyze energetic chemical reaction hazards involving transuranic waste. As a result, LANL facilities may not have appropriate controls to protect workers and the public. Further, DOE directives do not provide adequate guidance and requirements for analyzing and controlling energetic chemical reaction events at waste generator sites.

ECF No. 160-9, at p. 17.

Changed Circumstances Concerning Terrorism and Transportation

The 2019 CT SPEIS SA states that "NNSA reviewed the classified Appendix that was prepared for the Complex Transformation SPEIS to address intentional destructive acts" and "concluded that the classified Appendix analysis is reasonable and adequate to represent the proposed action in this SA and does not need to be revised." ECF No. 81-1, at CT SPEIS_68280. There was no further discussion of the particulars of this evaluation but the SA CT SPEIS noted that "[p]otential impacts from intentional destructive acts would be independent at each site." *Id.*

Appendix B of the CT SPEIS discusses the classified appendix as it relates to terrorist impacts and states that the appendix "evaluates the potential impacts of the successful execution of credible scenarios for the alternatives at seven sites (LANL TA-16, LANL TA-55, LLNL, NTX, SRS, Pantex and Y-12)." ECF No. 51-2, CT SPEIS_18078. Doubtless, such an assessment is critical and warranted but there is no mention of analyzing terrorist threats or other intentional destructive acts targeted at nuclear weapons, materials or waste in transit or otherwise off site. *Id.* at CT SPEIS_18078-18083.

Plaintiffs' Injuries as a Result of the Lack of NEPA Review

Plaintiffs include and incorporate herein by reference their declarations which describe the injuries they and their respective organizations and members have sustained as a result of

Defendants' failure to comply with NEPA as it relates to the subject matter of this suit. Exhibit 1, Declaration of Tom Clements; Exhibit 2, Declaration of James Coghlan; Exhibit 3, Declaration of Scott Yundt.

ARGUMENT AND CITATION OF AUTHORITIES

The National Environmental Policy Act ("NEPA") "declares that it is the continuing policy of the federal government, in cooperation with state and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." 42 U.S.C. § 4331(a).

In order to ensure informed and transparent decision-making, NEPA requires that, for every "major Federal action[] significantly affecting the quality of the human environment[,]" the agency involved prepare "a detailed [environmental impact] statement" that discloses and evaluates, among other aspects, the following:

- (i) reasonably foreseeable environmental effects of the proposed agency action;
- (ii) any reasonably foreseeable adverse environmental effects which cannot be avoided should the proposal be implemented;
- (iii) a reasonable range of alternatives to the proposed agency action, including an analysis of any negative environmental impacts of not implementing the proposed agency action in the case of a no action alternative, that are technically and economically feasible, and meet the purpose and need of the proposal; [...]
- (v) any irreversible and irretrievable commitments of Federal resources which would be involved in the proposed agency action should it be implemented.

42 U.S.C. § 4332 (C)(i)-(iii), (v). "A 'reasonably foreseeable' impact or effect may include those where the probability of occurrence is low, but the environmental consequences could be

‘catastrophic.’” *Oak Ridge Environmental Peace Alliance v. Perry*. 412 F.Supp.3d 786, 807 (E.D. Tenn. 2019) (quoting 40 C.F.R. § 1502.22).

The preparation of an Environmental Impact Statement (1) “ensures that an agency, when deciding whether to approve a project, will carefully consider, or take a ‘hard look’ at, the project’s environmental effects[.]” and (2) “ensures that relevant information about a proposed project will be made available to members of the public so that they may play a role in both the decisionmaking process and the implementation of the decision.” *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 443 (4th Cir. 1996) (citing *Robertson v. Methow Valley Citizens Council*, 490 U.S. 331, 349, 109 S. Ct. 1835, 104 L.Ed.2d 351 (1989)). “[T]he broad dissemination of information mandated by NEPA permits the public and other government agencies to react to the effects of a proposed action at a meaningful time.” *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 371, 109 S.Ct. 1851, 104 L.Ed.2d 377 (1989). While NEPA does not mandate any particular substantive result, it does prescribe “the necessary process” to “prohibit[] uninformed—rather than unwise—agency action.” *Robertson*, 490 U.S. at 350–51, 109 S. Ct. 1835.

The Administrative Procedures Act governs review of agencies’ NEPA decisions which should be set aside if the action is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law[.]” 5 U.S.C. § 706(2)(A); *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 375-76, 109 S.Ct. 1851, 104 L.Ed.2d 377 (1989). An agency’s action is normally arbitrary or capricious if, for example, the agency:

relied on factors Congress had not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before it, or is so implausible that the decision could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43, 103 S. Ct. 2856, 77 L.Ed.2d 443 (1983). A court must determine whether an agency “examine[d] the relevant data (impacts) and articulate[d] a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’” *Id.* (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168, 83 S.Ct. 239, 9 L.Ed.2d 207 (1962)). “When reviewing a NEPA decision, a court ‘must not reduce itself to a ‘rubber-stamp’ of agency action.” *Defenders of Wildlife v. North Carolina Dep’t of Transp.*, 762 F.3d 374, 396 (4th Cir. 2014) (citations omitted).

I. DEFENDANTS VIOLATED NEPA BY NOT UNDERTAKING A PROPER ALTERNATIVES ANALYSIS GIVEN THE CHANGE IN NEED AND PURPOSE AND CHANGED CIRCUMSTANCES SINCE THE 2008 CT SPEIS.

“An agency’s comparative evaluation of alternatives to the proposed action ‘is the heart of the environmental impact statement’ because it “sharply define[es] the issues and provid[es] a clear basis for choice among options by the decisionmaker and the public.” *Defenders of Wildlife v. North Carolina Dept. of Transp.*, 762 F.3d 374, 394 (4th Cir. 2014) (quoting 40 C.F.R. § 1502.14) (version in effect for relevant time period). Consequently, “agencies must ‘[r]igorously explore and objectively evaluate all reasonable alternatives[.] The assessment of the environmental impacts is the ‘scientific and analytic basis for the comparison [.]’ of alternatives.” *Id.* (quoting 40 C.F.R. §§ 1502.14(a), 1502.16).²

The 2008 CT SPEIS evaluated “alternatives for transforming the nuclear weapons complex (Complex) into a smaller, more efficient enterprise.” ECF No. 54-8, CT SPEIS_24665. One of the primary purposes of NNSA’s proposed actions identified in the 2008 CT SPEIS was to

² As in their Complaint and Amended Complaint, Plaintiffs cite the CFR provisions in effect at the time of the relevant analyses throughout.

consolidate nuclear material at fewer sites “to reduce risks and safeguard costs.” *Id.* at CT SPEIS_24694. To that end, the 2008 CT SPEIS purported to analyze alternatives based on the need for, among other goals, “a smaller size for more cost-effective operations” and “[e]nhanced security[.]” ECF No. 54-8, CT SPEIS_24695. The purposes and needs mentioned above, resulted in the consideration of several sites for a consolidated pit production facility at LANL, NTS, SRS, Pantex, or Y-12. ECF No. 54-8, CT SPEIS_24719. The 2008 CT SPEIS never considered a dual site pit production which would have been contrary to the purpose of consolidating operations for cost, efficiency and security. Indeed, as recently as 2017, in the non-NEPA related Analysis of Alternatives, the authors recommended the alternative of splitting production between LANL’s PF-4 and another facility for elimination of consideration because, in addition to requiring more equipment and reconfiguration in PF-4, the alternative would “add long-term production risk and surveillance costs due to multiple production lines. [] Therefore, the 30/50 split production alternatives were recommended for elimination from further consideration.” ECF 81-5, CT SPEIS_70631-32.

The change is evident when one considers that the alternatives in the 2008 CT SPEIS were assessed with an eye toward consolidation and to “eliminate redundant activities.” ECF No. 54-8, CT SPEIS_24718. Yet the new purpose and need, according to the SA CT SPEIS, is to “improve the resiliency, flexibility, and redundancy of the Nuclear Security Enterprise by not relying on a single production site.” ECF No. 81-1t CT SPEIS_68229. Yet, the 2019 SA CT SPEIS claims that “the purpose and need has not changed from the Complex Transformation SPEIS[.]” *Id.* at CT SPEIS_68227.

Despite the AoA conclusion and the change from 2008 CT SPEIS’s earlier consolidation focus, NNSA changed course and announced that it would pursue a dual site pit production plan

at LANL and SRS in May of 2018. The new plan was announced before the Final Supplement Analysis of the CT SPEIS, the final LANL SA SWEIS and the final SRS EIS by over a year. The SA CT SPEIS did not, however, evaluate the suitability of other alternative sites for pit production beyond SRS and LANL or the feasibility of a single site production. ECF No. 81-1, CT SPEIS_68241; 68261. The only alternative evaluated in the SRS EIS related to varying amounts of pit production (50, 80, 125 ppy) at SRS. ECF No. 107-4, SRS_6169. The LANL SA SWEIS likewise did not evaluate pit production at another site or sites but just focused on pit production at LANL. ECF No. 89-3, LANL SA_09056, 09067.

Thus, NNSA and DOE are proceeding with dual site pit production even though that alternative was not contemplated in the 2008 CT SPEIS, the SA CT SPEIS, the SRS EIS and the LANL SA SWEIS. The plan is directly contrary to one of the purposes and needs related to consolidation for cost, efficiency and security outlined in the 2008 CT SPEIS. Despite the obvious change, the current plan has been characterized as a modification of the Distribution Center of Excellence which was intended to consolidate pit production to occur at a single location. The alteration of the purpose and need from the 2008 CT SPEIS to the SA CT SPEIS is important because the identified purpose and need of the project necessarily informs the range of alternatives to be considered. 40 C.F.R. § 1502.13.

Both the Fourth and First Circuits have held, however, that “[i]t would be one thing if the [agency] had adopted a new alternative that was actually within the range of previously considered alternatives It is quite another thing to adopt a proposal that is configured differently.” *Wild Virginia v. United States Forest Serv.*, 24 F.4th 915, 929 (4th Cir. 2022) (citing *Dubois v. U.S. Dep’t of Agric.*, 102 F.3d 1273, 1292–93 (1st Cir. 1996)); *see also Defenders of Wildlife v. North Carolina Dep’t of Transp.*, 762 F.3d 374, 398 (4th Cir. 2014) (ruling should not “be construed as

an authorization to proceed outside the scope of the previously studied alternatives, and Defendants' doing so would almost surely violate NEPA").

At issue in *Wild Virginia* was the use of the "conventional bore method" to allow the installation of a pipeline across four streams in the Jefferson National Forest as opposed to the previously favored methods of "dry-ditch open cutting and wet cutting." 24 F.4th at 928–29. Despite a supplemental EIS which included information about the "method, impact, safety, and environmental concerns related to conventional boring," the court found that approval of the method was premature. *Id.* at 929. The court reasoned that because the original proposal planned to use "dry-ditch open cutting and wet cutting to construct the stream crossings ... [the initial EIS] did not extensively consider the conventional bore method because no stream crossings were to be constructed using that method." *Id.* Accordingly, the court concluded that the supplemental EIS, which relied on the analysis of the conventional bore method in the initial EIS, did not properly analyze the method's environmental effects and that approval of the bore method was inappropriate without incorporating further environmental analysis from FERC. *Id.* at 930.

In reaching its decision in *Wild Virginia*, the Fourth Circuit cited with approval the First Circuit's holding in *Dubois v. U.S. Department of Agriculture*. The court in *Dubois* analyzed whether the proposed action adopted by the Forest Service in a final EIS approving the expansion of a ski facility in White Mountain National Forest represented a substantial change from previously proposed actions and alternatives and therefore required the completion of a supplemental EIS. *Dubois*, 102 F.3d at 1291–93. The Forest Service maintained that the proposed action adopted in the final EIS (Alternative 6), had been analyzed in previous environmental documents as "Phase II of Alternative 2." The First Circuit held, however, that "Alternative 6, adopted by the Forest Service as its preferred alternative in the final EIS, does not 'fall within the

spectrum of alternatives’ that were considered in previous drafts” and represented a “different configuration of activities and locations, not merely a reduced version of a previously-considered alternative.” *Id.* at 1292. The court noted that Alternative 6 “develop[ed] ski trails, access roads and lifts on land that the prior alternatives had left as a woodland buffer” and that these differences qualified as “substantial changes from the previously-discussed alternatives, not mere modifications within the spectrum of those prior alternatives.” *Id.* at 1292 (internal quotations omitted). The court reasoned that because the alternative was reconfigured, “public commenters might have pointed out, given the opportunity—and the Forest Service might have seriously considered—wholly new problems posed by the new configuration (even if some of the environmental problems present in the prior alternatives have been eliminated).” *Id.* at 1293. Accordingly, the “Forest Service’s failure to prepare a supplemental EIS was arbitrary and capricious.” *Id.* at 1293.

The characterization of the dual site pit plan as a previously considered alternative deprives the public of its ability to weigh in on whether there should be a single or dual site alternative for pit production and, perhaps more importantly, precludes public evaluation of and comment on various alternative locations at which pit production may occur even if a dual site plan is selected. “Publication of an EIS, both in draft and final form, also serves a larger informational role. It gives the public the assurance that the agency ‘has indeed considered environmental concerns in its decisionmaking process,’ [] and perhaps more significantly, provides a springboard for public comment[.]” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 331, 349, 109 S. Ct. 1835, 104 L.Ed.2d 351 (1989) (quoting *Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 97, 103 S. Ct. 2246, 2252 (1983)) (citing L. Caldwell, Science and the

National Policy Act 72 (1982)). “[P]ublic scrutiny [is] essential to implementing NEPA.” 40 C.F.R. § 1500.1(b) (version in effect at time of NEPA analyses here).

The Ninth Circuit was presented with a NEPA challenge and found that the United States Army had violated NEPA by not considering alternatives or providing the public with the ability to comment on alternatives. *‘Ilio ‘ulaokalani Coalition v. Rumsfeld*, 464 F.3d 1083, 1101–02 (9th Cir. 2006). In *‘Ilio ‘ulaokalani*, the Army argued “that the scope of reasonable alternatives to be considered in the SEIS was bound or limited by the PEIS’s decision to transform Hawaii as articulated in the SEIS purpose and need statement.” *Id.* at 1097. The court observed that the Army’s argument, in essence, is that it was not “required to examine alternatives to transformation in Hawaii in the PEIS (because the site-specific threshold had not yet been crossed) nor in the SEIS (because the on-site transformation of the 2nd Brigade was mandated by the PEIS as articulated in the SEIS purpose and need statement).” *Id.* The Ninth Circuit rejected this approach and reasoned that the Army either needed to consider alternatives in the PEIS if that was where it decided to “transform the 2nd Brigade in Hawaii” or “it needed to explain that decision in the SEIS, but the Army cannot simultaneously argue that the decision had been made in the PEIS and that it had not. Somewhere, the Army must undertake site-specific analysis, including consideration of reasonable alternatives.” *Id.* “Without having considered alternatives to the transformation of the 2nd Brigade in Hawaii in the PEIS, the Army had an obligation to consider such alternatives in the SEIS.” *Id.*

The posture in this matter is different but the effect is similar. Various alternatives were evaluated in the CT PEIS in 2008 but only for single site pit production. At the end of that process, the ROD announced that pit production would continue at LANL, although not at certain levels considered in the CT PEIS. Afterward, Defendants decided to pursue a dual site pit production operation which is contrary to the stream-lined purpose and need of the CT PEIS and the single

site alternatives it considered. Instead of presenting the public with various dual site pit production alternatives or single site alternatives that could satisfy the desire for redundancy in pit production, neither the SA CT SPEIS, the LANL SA SWEIS nor the SRS EIS considered any alternatives except dual site pit production at LANL and SRS. So instead of essentially choosing an alternative at the PEIS stage and then not evaluating alternatives at the SEIS stage, like the Army in *Ilio'ulaokalani*, Defendants here pursued an alternative they claimed was considered as part of the PEIS and then did no site-specific analysis later except as to the amount of pit production at each site. Under both scenarios, the public did not have an opportunity to evaluate reasonable alternatives of the project at either stage of the process.

Public scrutiny, in addition to being one of the primary reasons for and benefits of NEPA, is particularly important here. The choice of location for pit production is directly related to mitigation efforts because where pits are manufactured can change how much radioactive waste is generated from production. Pits produced at SRS generate more waste on a per-pit basis because production generates americium-241 which is recovered at LANL but which must be packaged for disposal at WIPP if the pit is produced at SRS. SRS_6382. Evaluating alternatives that allow for the recovery of americium-241 or otherwise reduce some of the toxic waste produced is required by NEPA. 40 C.F.R. § 1502.14.

Minimizing harmful waste created by pit production is critical, as will be discussed further in the following sections, because there is only one location for transuranic waste disposition in the entire country, the Waste Isolation Pilot Plant (“WIPP”), and it has a statutory cap on the amount of transuranic waste it may accept for emplacement. But even if WIPP capacity was unlimited, assessing reasonable alternatives for mitigation or minimization of waste production is still required under NEPA.

The choice of location also matters because it may affect how soon pit production occurs and whether there is sufficient capacity for disposal of the waste associated with pit production given WIPP's shrinking capacity. The Institute for Defense Analyses concluded that such a quick repurposing of SRS for pit production would be unprecedented and also concluded that no production plan, including the dual site pit production plan at SRS and LANL, could be expected to produce 80 pits per year by 2030. ECF No. 108-2, SRS_7265-7266. The 2017 AoA similarly concluded that establishing pit production under any of the alternatives that NNSA considered, including repurposing the facility at SRS, would be unlikely to be at full capacity by 2030 under the most optimistic circumstances. ECF No. 81-5, CT SPEIS_70663-70664.

Another potential delay, which would affect the evaluation of certain alternatives, is the risk of safety issues causing a facility-wide shutdown or a halt to pit production. A September 2020 GAO Report noted two instances in the past two decades where LANL experienced a laboratory-wide shutdowns due to safety issues and noted that a recurrence of similar issues prior to SRS becoming operational could further delay pit production. ECF No. 108-2, SRS_00007265. Of course, similar safety issues at a location not previously involved in pit manufacture could also result in delayed production.

While agencies "have discretion to identify the range of reasonable alternatives" for consideration, *N. Carolina Wildlife Fed'n v. N. Carolina Dep't of Transp.*, 677 F.3d 596, 602 (4th Cir. 2012), they may not "defin[e] the objectives of their actions in terms so unreasonably narrow they can be accomplished by only one alternative (*i.e.*, the applicant's proposed project). *Colorado Env't Coal. v. Dombeck*, 185 F.3d 1162, 1174 (10th Cir. 1999). Further, where an agency eliminates an alternative from detailed study and gives an explanation that is inconsistent with the agency's stated purpose of a project or proposal, a finding of arbitrary or capricious action is

appropriate. See *High Country Conservation Advocs. v. United States Forest Serv.*, 951 F.3d 1217, 1225 (10th Cir. 2020). The Ninth and Tenth Circuits have held that agencies have a duty under NEPA to “provide legitimate consideration to alternatives that fall between the obvious extremes.” See, e.g., *Neighbors of the Mogollon Rim, Inc. v. United States Forest Serv.*, No. 22-15259, 2023 WL 3267846, at *2 (9th Cir. May 5, 2023); *Colorado Env't Coal.*, 185 F.3d 1162, 1175 (10th Cir. 1999).

The Analysis of Alternatives stated that “there is little cost or schedule distinction between the three most promising sites, SRS, LANL, and INL” so that the “choice of building site may reasonably be made based on the decisionmaker’s judgment of risks, benefits, and disadvantages.” ECF No. 81-5, CT SPEIS_70667. Therefore, even in the non-NEPA analysis, multiple alternatives for pit production are available for consideration. This is also consistent with the many alternative sites assessed in the 2008 CT SPEIS. ECF No. 54-8. CT SPEIS_24719. The public has the right to be presented with and comment on various alternatives for pit production.

Plaintiffs anticipate that Defendants will argue that there is no need to further evaluate alternatives because the environmental impacts evaluated in the 2008 CT SPEIS were sufficiently large to “bound” the effects of the dual site proposal at issue here. As Plaintiffs pointed out in comments, bounding is inappropriate here under DOE’s own guidance. As the comment quotes DOE’s guidance as follows: “DOE must ensure that the [alternatives] analysis is not so broad and all-encompassing as to mask the distinctions among alternatives, or to hinder consideration of mitigations[;] [e]ven where overall impacts are small, detailed analysis for each alternative may be needed where the differences in impacts may help to decide among alternatives or to address concerns the public has expressed, as sometimes applies when DOE must select sites or transportation routes and methods for conducting its operations[;] [i]t is never appropriate to

‘bound’ the environmental impacts of potential future actions (not yet proposed) and argue later that additional NEPA analysis is unnecessary because the impacts have been bounded by the original analysis.” ECF 106-1, SRS_00000557 (quoting DOE NEPA guidance). The limitations on bounding analysis are consistent with that noted by the court in *Oak Ridge Environmental Peace Alliance v. Perry*, 412 F.Supp.3d 786, 807 (E.D.Tenn. 2019) (“even where overall impacts are small, DOE’s own internal guidance suggests that a bounding analysis would be inappropriate if it obscures differences among alternatives or fails to address concerns the public has expressed”). Here, reconfiguring the alternatives and invoking a bounding analysis not only obscures differences among alternatives, it necessarily precludes consideration of new alternatives given new purposes and needs and not only fails to address concerns the public has expressed but also prevents the public from even commenting on new alternatives related to the new purpose and need.

Defendants may also assert that the SRS EIS and LANL SA SWEIS are properly tiered from the CT SPEIS so that alternatives need not be further considered but that is not the case. “A properly tiered analysis consists of ‘a broad environmental impact statement’ followed by ‘a subsequent statement or environmental assessment ... on an action within’ the program or policy contemplated in the broad statement. *Defenders of Wildlife v. North Carolina Dep’t of Transp.*, 762 F.3d 374, 395–96 (4th Cir. 2014) (quoting 40 C.F.R. § 1502.20). “Tiering may never be used to ‘avoid consideration of reasonable alternatives by making a binding site-specific decision at the programmatic stage without analysis, deferring considering of site-specific issues to a [subsequent Supplemental Environmental Impact Statement].” *Id.* at 396 (quoting *Ilio’ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1101 (9th Cir. 2006)). As in the case of bounding, tiering is inappropriate here because it could avoid consideration of reasonable alternatives and limit

alternatives actually considered to those related to pre-selected sites when a dual site alternative was never actually considered at the programmatic stage.

“NEPA regulations require that a ROD ‘[i]dentify all alternatives considered by the agency in reaching its decision, specifying the alternative or alternatives which were considered to be environmentally preferable. [] The EIS shall ‘[r]igorously explore and objectively evaluate all reasonable alternatives,’ and ‘[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.’” *Sierra Club v. United States Forestry Serv.*, 897 F.3d 582, 599 (4th Cir. 2018)(quoting 40 C.F.R. § 1505.2; 1502.14(a), (b)).

In *North Carolina Wildlife Fed'n v. North Carolina Dep't of Transportation*, the Fourth Circuit discussed NEPA’s aims by stating that “NEPA procedures emphasize clarity and transparency of process over particular substantive outcomes” so that an “agency’s assessment of alternatives to the proposed action sharply defines the issues and provides a clear basis for choice among options by the decisionmaker **and the public.**” *N. Carolina Wildlife*, 677 F.3d at 602–03 (emphasis added). Accordingly, the court found that an EIS which assumed the existence of the proposed project in all of its alternatives, including the no build alternative, violated NEPA, prevented the EIS from serving its “larger informational role,” and deprived [the public] of its opportunity to play a role in the decision-making process. *Id.* at 604–05. In this matter, Defendants have effectively deprived the public of its opportunity to play a role in the decision-making process by changing the purpose and need of the proposal, then endorsing a dual site alternative that was never initially considered and then only considering variations of pit production and the previously selected two sites. Such a practice is arbitrary and capricious and violates NEPA.

II. DEFENDANTS VIOLATED NEPA BY FAILING TO ASSESS THE CUMULATIVE EFFECTS OF INCREASED PIT PRODUCTION ON WIPP'S LIMITED CAPACITY.

NEPA's obligations are continuing in nature and agencies must "consider the environmental impacts of a proposed action, even after a Final Environmental Impact Statement has been issued. An agency must issue a supplemental Environmental Impact Statement if the agency 'makes substantial changes in the proposed action that are relevant to environmental concerns' or if '[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.'" *Defenders*, 762 F.3d at 394 (quoting 40 C.F.R. § 1502.9 (c)(1)(i), (ii)); *see also*, *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 443 (4th Cir. 1996) (accord).

"In reviewing an agency's decision not to prepare a supplemental EIS, a court must undertake a two-step inquiry. First, the court must determine whether the agency took a hard look at the proffered new information. Second, if the agency did take a hard look, the court must determine whether the agency's decision not to prepare a supplemental EIS was arbitrary or capricious." *Hughes River Watershed Conservancy*, 81 F.3d at 443 (citing *Village of Grand View v. Skinner*, 947 F.2d 651, 657 (2d Cir. 1991); *Marsh*, 490 U.S. at 385, 109 S. Ct. at 1864–65).

An "EIS must consider any 'reasonably foreseeable' effects or adverse impacts of the proposed action which will have environmental consequences." *Oak Ridge Environmental Peace Alliance v. Perry*, 412 F. Supp. 3d 786, 806 (E.D. Tenn. 2019) (citing 40 C.F.R. §§ 1502.16, 1502.22). In *Kleppe v. Sierra Club*, the Supreme Court noted that a PEIS may be required under NEPA when several proposed actions are concurrently pending before an agency that "will have cumulative or synergistic environmental impact upon a region." 427 U.S. 390, 410, 96 S. Ct. 2718, 2730, 49 L.Ed. 576 (1976). There is no question that the aims of the dual site pit production are

intended to meet a singular goal and that the nature of the enterprise, including transfer of materials for use, storage and disposal are interconnected and cumulative.

It is undisputed that the WIPP is the only location in the United States that may accept transuranic waste for disposition; that WIPP's storage capacity is capped by statute at 175,564 cubic meters of TRU waste, ECF No. 161-4, SRS_00092863; and that increased pit production will also increase the generation of transuranic waste that must be disposed of at WIPP. Since the 2008 CT SPEIS was completed many events have occurred that affect WIPP's capacity and which constitute changed circumstances such that a new or supplemental programmatic EIS should be undertaken.

The first and most obvious change since the 2008 CT SPEIS evaluation is that WIPP capacity has, in the subsequent years, diminished. The SA CT SPEIS evaluated WIPP capacity by comparing projections for pit transuranic waste for producing 200 pits per year, for producing up to 80 pits per year at LANL and SRS and, "the most likely scenario" where "LANL would produce approximately 30 pits per year and SRS would produce approximately 50 pits per year (actual production numbers are classified)." ECF No. 81-1, CT SPEIS_68399. The SA CT SPEIS began by noting that of the 175,600 cubic meters of TRU waste authorized under the ROD for WIPP SEIS-II, "DOE has disposed of approximately 67,552 [cubic meters] of TRU waste at WIPP[]." *Id.* at CT SPEIS_68398. Under the scenario in which both LANL and SRS produce 80 pits per year, the SA CT SPEIS projected that pit production "would account for 92 percent of the projected available capacity at WIPP." *Id.* at CT SPEIS_68399. Under the most likely scenario, split production of 30/50, the SA CT SPEIS projected the generation of 57,550 cubic meters of TRU waste over 50 years "which would account for 53 percent of the projected available capacity at

WIPP.”³ *Id.* The SA CT SPEIS added that “use of WIPP capacity for national security missions such as pit production would be given priority in the allocation process.” *Id.*

The only other aspect of WIPP capacity the SA CT SPEIS discussed in this section related to availability at SRS and LANL for temporary storage of TRU waste in the event WIPP was unable to accept TRU waste for a limited time period. *Id.* Therefore, the SA CT SPEIS did not analyze WIPP capacity beyond whether it had capacity to accept TRU waste from pit production which could be “given priority” for disposition. Nor did the SA CT SPEIS assess whether either SRS or LANL had permanent TRU waste storage capacity. *Id.* The analysis is necessarily deficient because it fails to assess WIPP capacity for the rest of the programmatic TRU waste generation and it also fails to assess the programmatic ripple effects of prioritizing WIPP capacity for pit production.

The Second Circuit has found that the failure to consider the cumulative impacts of related projects in an EIS analyzing the use of an ocean dump site for the disposal of highly polluted dredged material, represented an inappropriate “piecemeal approach to environmental consideration.” *Nat. Res. Def. Council, Inc. v. Callaway*, 524 F.2d 79, 90 (2d Cir. 1975). Noting “several other major federal and private dredging projects” which were likely to make use of the same dump site as the Navy proposed in its EIS, it was held that the cumulative environmental impact of the disposal of all the dredged material at or near the site “would clearly be greater than the impacts of the projects individually and the risk of serious environmental consequences (such as the movement of the spoil toward shore) may be correspondingly greater.” *Id.* at 89. Accordingly, the court determined that the “Navy’s failure to consider these and possibly other

³ It is noteworthy that this scenario likely underrepresents pit production as the 80 pits per year number is a minimum annual level of production. ECF No. 81-4, CT SPEIS_70205, 70216-17.

proposed dredging projects in the... area [was] an example of the isolated decisionmaking sought to be eliminated by NEPA.” *Id.*

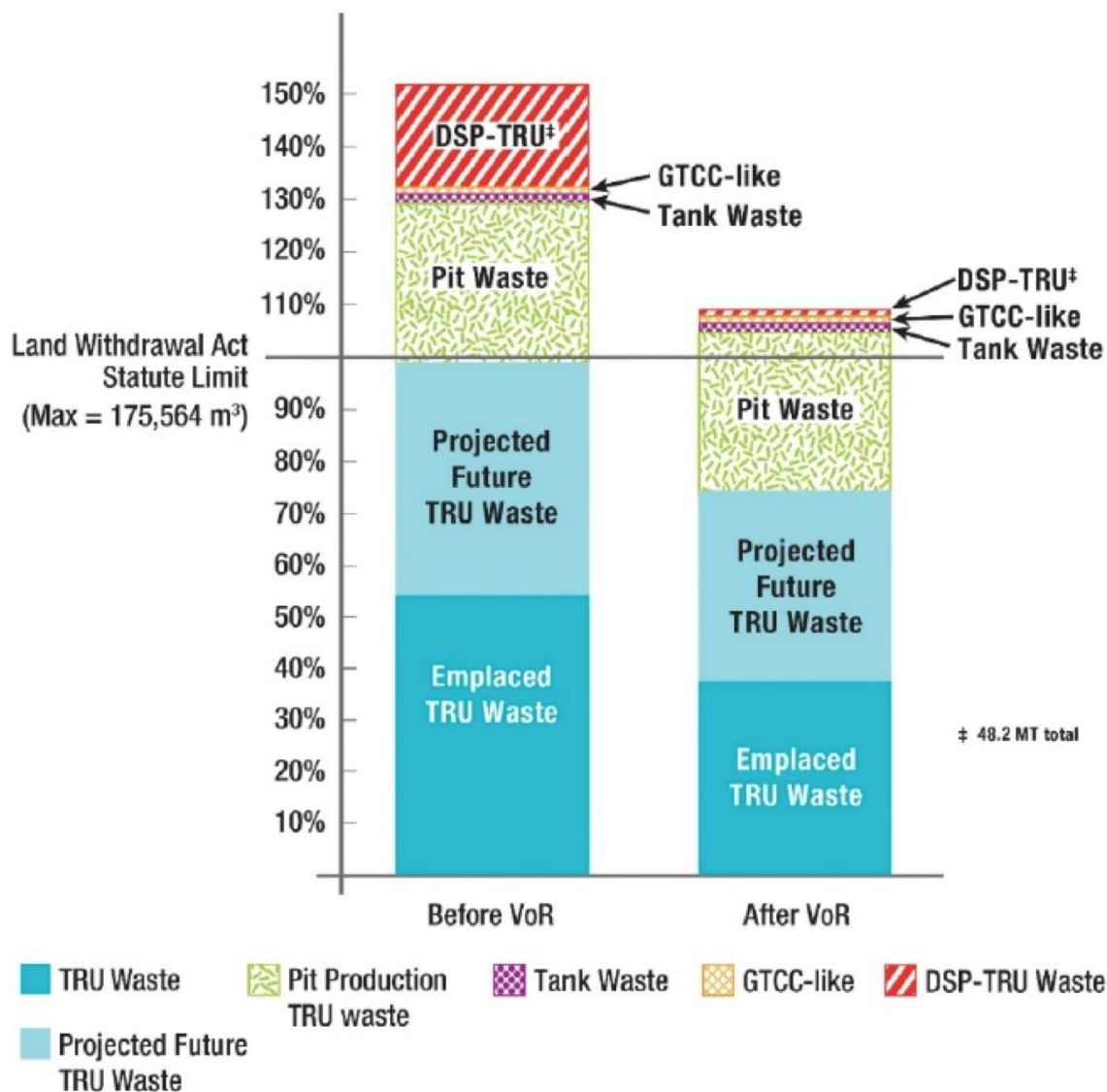
In *Nat'l Audubon Soc'y v. Dep't of Navy*, the Fourth Circuit analyzed the Navy’s failure to address the cumulative impacts of a proposed action on “one set of present actions and one reasonably foreseeable future action.” 422 F.3d 174, 196 (4th Cir. 2005) (internal quotations omitted). While a Navy FEIS did include “a brief discussion of the cumulative impact” of a proposed action alternative (Site D) and the reasonably foreseeable action of approving new Military Operating Area (MOA) in North Carolina, it omitted discussion of the cumulative impact of the proposed action alternative which was eventually selected (Site C). *Id.* at 197. The “FEIS’s analysis of Site D did not address the issue of thousands of co-located flights near Site C” and failed to consider whether the proposed actions would “add any significant noise-related or other environmental impacts to those that the existing military airspace currently imposes.” *Id.* at 196. The court concluded that it was doubtful whether the Navy had considered “the impact of its actions in isolation, let alone in combination with others,” and that the Navy’s consideration of cumulative impacts was therefore, “insufficiently comprehensive.” *Id.* at 197.

The need for an SEIS analyzing the cumulative impacts associated with TRU waste disposal at WIPP is undeniable. As in *Nat. Res. Def Council, Inc. v. Callaway*, the failure to consider the cumulative impacts of related projects using a dump site for the disposal of highly polluted material, represents an inappropriate “piecemeal approach to environmental consideration” and is “an example of the isolated decision making sought to be eliminated by NEPA.” 524 F.2d at 89–90. Further, the fact that there are numerous unanalyzed support sites throughout the country that are impacted by the pit production process, including Lawrence Livermore National Laboratory, Kansas City National Security Complex and the Pantex Plant,

indicates that it is doubtful whether the Defendants considered the impact of [their] actions in isolation, let alone in combination with others, rendering the consideration insufficiently comprehensive. *See* ECF No. 81-1, CT SPEIS_68363; 68393-400.

First, WIPP's capacity continues to diminish. According to the 2019 SA CT SPEIS, WIPP had, at that time, already accepted 67,552 cubic meters of TRU waste for disposal. ECF No. 81-1, CT SPEIS_68288. Second, the so-called MOX facility that was slated to dilute surplus plutonium at SRS has been canceled. The SA CT SPEIS correctly noted that this is a "significant change" regarding "plutonium disposition[.]" *Id.* at CT SPEIS_68285. The cancellation of the MOX facility prompted Congress to approach the National Academies of Sciences, Engineering, and Medicine ("NAS") to evaluate how to dilute the surplus plutonium for disposal at WIPP. In 2018, NAS identified a process whereby diluted plutonium would be emplaced for disposition at WIPP and in 2020 NAS prepared its final analysis on this recommended approach.

In the 2020 report, NAS concluded, based upon its analysis of the TRU waste volumes contained in the 2019 SA CT SPEIS and the 2019 Annual Transuranic Waste Inventory Report that WIPP storage capacity would be exhausted within the 50 year time period. The following diagram was included:



ECF 161-4, SRS_00092751.

The NAS Report also states that “volume limits are still likely to be challenged—in particular with the addition of the pit production TRU wastes. These additional wastes put completion of the [dilute and disposal of TRU] waste emplacement plans at risk.” *Id.* at SRS_00092771. “[T]he data in Table 3-2 and Figure 3-9 make clear that [WIPP Land Withdrawal Act] statutory capacity remains an issue, primarily due to pit production TRU waste.” *Id.* at SRS_00092750, Table 3-2. Instead of making disposal of pit TRU waste a priority, the authors of

the NAS Report state that DOE should prioritize and reserve “capacity in WIPP for the full amount of diluted surplus plutonium TRU waste (2,057 cubic meters). Otherwise, the DOE-NNSA and the DOE-EM programs are at risk of not being able to dispos[e of] the full amount of 48.2 metric tons of surplus plutonium via dilute and dispose.” *Id.* at SRS_00092751.

Despite having the data NAS used to reach its conclusions regarding WIPP capacity, available, the SA CT SPEIS neglected to assess the cumulative effects on WIPP capacity from the increase in pit production’s generation of TRU waste. This failure to properly consider the cumulative effects of the dual site pit production in a programmatic EIS was arbitrary and capricious and violated NEPA.

III. DEFENDANTS VIOLATED NEPA BY NOT AUTHORIZING A SUPPLEMENTAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT TO ADDRESS THE CHANGED CIRCUMSTANCES REGARDING WIPP CAPACITY.

The information and analyses conducted by NAS and in the 2020 Annual Transuranic Waste Inventory Report about the increased pit production’s cumulative effects on WIPP capacity also constitutes new information that necessitates a supplemental or new programmatic environmental impact statement. Plaintiffs incorporate the argument in Section II. herein by reference.

In *Hughes River Watershed Conservancy v. Glickman*, the Fourth Circuit found that the Army Corps of Engineers did not take the required hard look at new information regarding potential zebra mussel infestation resulting from a dam project. 81 F.3d at 445. The court noted that “[t]he EPA, the FWS, and Dr. Neves informed the Corps that zebra mussel infestation of the North Fork would have “devastating” environmental consequences. The Corps was also presented with evidence from Dr. Neves and five other experts showing that the North Fork would not become heavily infested without the Project.” *Id.*

The Corps chose not to contact the experts who had provided the evidence and instead chose to rely on “opinions from two individuals that all the district's reservoirs would eventually become infested and that the North Fork could possibly become infested from fish bait buckets.” *Id.* at 444–45. While an agency is entitled to “rely on the reasonable opinions of its own qualified experts,” the reliance in this case was misplaced because the opinions did not “address the expert evidence furnished to the Corps. In particular, they d[id] not address Dr. Neves' undisputed conclusion that *heavy* infestation of the river would not occur without the reservoir.” *Id.* at 445. Accordingly, the court concluded that the Corps failed to take the required hard look at the proffered new information. On remand, the Corps was required to take a hard look at the evidence and then determine whether to prepare a supplemental EIS addressing the issue. *Id.* at 446.

Other circuits have found that even where new information only raises questions rather than allows for substantiated conclusions, “the agency must [still] consider it, evaluate it, and make a reasoned determination whether it is of such significance as to require implementation of formal NEPA filing procedures.” *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1024–25 (9th Cir. 1980). In *Warm Springs*, a “report threatened to undermine the major assumption underlying the S-EIS, that an earthquake on the San Andreas Fault would pose a greater potential threat to dam safety than an earthquake on any other fault.” *Id.* at 1025. The court noted that while the report was “not so definitive as to compel initiation of the formal supplementation process, [it] raised sufficient environmental concerns to require the Corps to take another hard look at the issues.” *Id.* Accordingly, the “response to the new information contained in the Herd report did not satisfy NEPA. On the basis of the information then available, the Corps' decision not to file a further supplement to the S-EIS was not reasonable.” *Id.*

In this case, the analyses and data utilized by the NAS in reaching its conclusion that foreseeable programmatic actions would exceed WIPP's capacity did not exist until after the 2008 CT SPEIS. NAS used the 2019 SA CT SPEIS and the 2019 ATWIR to assess WIPP's capacity as it relates to pit production. ECF No. 161-4, SRS 00092749. Another changed circumstance was the cancellation of the MOX facility which will necessarily deplete WIPP capacity for TRU waste disposal. As the SA CT SPEIS acknowledges, the cancellation of the MOX plutonium disposal project was a "significant change ... regarding plutonium disposition[.]" ECF No. 81-1, CT SPEIS_68285.

Despite the NAS analysis and the fact that the data that supported this analysis is derived from Defendants' documents, Plaintiffs suspect that Defendants will assert that WIPP has ample capacity for foreseeable TRU waste disposal based upon a later analysis in the SRS EIS. The SRS EIS states that TRU waste would be produced for 50-80 ppy at levels falling between 600 to 880 cubic yards with Table 4-13 stating that 50 ppy would generate 600 cubic yards/yr while 80 ppy would generate 880 cubic yards per year. ECF 107-4, SRS_00006307. The source of the Table 4-13 for TRU waste production is SRNS 2020 (Savannah River Nuclear Solutions LLC Data Call Response Supporting the SRS Pit Production EIS) and SRNS 2020a (Addendum to the Data Call Response Supporting the SRS Pit Production EIS). *Id.*

The SRNS 2020 is dated February 2020 and states that TRU waste for 50 ppy is 820 cubic yards while 80 ppy would yield 1,200 cubic yards and 120 ppy would yield 1,370 cubic yards. ECF 142-2, SRS_00089338-39. The document also states that SRS currently generates 460 cubic yards of TRU waste per year. *Id.*

The SRNS Addendum is dated August 2020 and simply states that "[f]urther evaluation of the processes that would generate waste during operations of SRPPF have resulted in changes to

the estimated volumes of the various waste streams.” ECF 142-2, SRS_00089565. There is no analysis or further documentation provided. While this document was referenced in the SRS EIS, it was not provided in any appendix that Plaintiffs could identify and the EIS did not even include a hyperlink to it. ECF 107-3, SRS_00005711. The TRU waste is revised significantly from 820 cubic yards per year for 50 ppy to 600 cubic yards, from 1,200 cubic yards per year for 80 ppy to 880 cubic yards, and from 1,370 cubic yards per year to 1,000 cubic yards per year. ECF 142-2, SRS_00089565. There was no revision to the estimate for current/existing SRS waste generation related to TRU of 460 cubic yards per year. *Id.*

The SRS EIS Appendix A, which is supposed to outline methodologies used in the EIS, acknowledged that WIPP “is the only location for the disposal of TRU waste.” ECF No. 107-3, SRS_00005699. The EIS Appendix then states that “[t]he assessment of impacts at WIPP is limited to how increased shipments from the Proposed Action could impact WIPP’s ongoing waste receipt operations. Long-term impacts associated with potential effects on WIPP’s capacity and planned lifespan are discussed as cumulative impacts (Chapter 5) because those impacts would be the results of all wastes (from all waste generators) going to the facility.” *Id.* So the SRS EIS recognizes that overall WIPP capacity for waste disposal should be assessed as a cumulative impact, but there is no discussion as to what methodologies were used in estimating waste volumes from the proposed action. *Id.* The CEQ NEPA regulations state that agencies “shall identify any methodologies used” in the EIS. 40 C.F.R. § 1502.23. “A conclusory statement unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind’ not only fails to crystallize issues, [...] but affords no basis for a comparison of the problems involved with the proposed project and the difficulties involved in the alternatives.” *Silva v. Lynn*, 482 F.2d 1282, 1285 (1st Cir. 1973) (internal quotations and citations omitted). “Moreover, where

comments from responsible experts or sister agencies disclose new or conflicting data or opinions that cause concern that the agency may not have fully evaluated the project and its alternatives, these comments may not simply be ignored. There must be good faith, reasoned analysis in response.” *Id.*

In response to comments, the SRS EIS also does not address the drastic reduction in TRU waste volume estimates. NNSA does, however, acknowledge that the pit production operations will span at least 50 years and assume “WIPP is operational beyond year 2050” while also conceding that the 2019 WIPP Draft Strategic Plan “indicates that the WIPP facility is planning for an operational lifetime though at least 2050.” ECF No. 107-3, SRS_00005838. Setting aside the fact that beginning pit production at SRS by 2030 would be unprecedented and unlikely, even if possible that leaves several decades of waste disposal unaddressed. Therefore, “NNSA acknowledges that additional regulatory approval is required to revise the existing WIPP facility operational lifecycle.” *Id.* The SRS EIS does not evaluate potential risks associated with TRU waste disposal if that approval is not granted or if granted comes with limitations on prioritization of TRU waste streams from pit production in another State.

It would be concerning enough if the SRS EIS’s conclusion about WIPP capacity was based on numbers that are much lower than the projections contained in the SA CT SPEIS, finalized only months earlier without any analysis of how those projections were calculated. But the analysis is further called into question when those projections are compared to projections that DOE included in its own 2020 Annual Transuranic Waste Inventory Report (“2020 ATWIR”) which was completed a few months after the SRS EIS projections. Plaintiffs have stated the 2020 ATWIR should be included in the administrative record in this matter under the relevant factors exception because in it, DOE projects TRU pit waste beyond 2033 to total 48,980 cubic meters

(3,080 cubic meters from LANL and 45,900 cubic meters from SRS). ECF 160-11, at pp. 43-44. The 48,980 cubic meter total does not include the total amount of pit TRU waste because it does not include waste prior to 2033. *Id.* The projection for SRS total pit TRU waste are much greater than those included in the SRS EIS (22,950 cubic meters) and the LANL SA SWEIS (31,350 cubic meters) but it is consistent with the projections from the NAS report and the SA CT SPEIS. As stated earlier, NAS concluded that the total projected TRU waste would exceed WIPP's statutory capacity.

The 2020 ATWIR post-dates the SRS EIS by only a few months and the data contained therein was in DOE's hands before the SRS ROD and the second AROD for the CT SPEIS as it was signed on November 5, 2020—the same date those decisions were issued. The 2020 ATWIR clearly states that “[t]he inventory data used to develop this report support numerous tasks, such as planned changes, **National Environmental Policy Act (NEPA) activities**, design changes, identifying waste containing oxyanions and complexing agents, and various analyses such as the WIPP Documented Safety Analysis (DSA).” *Id.* at p. 11 (emphasis added).

The NAS report and the 2020 ATWIR constitute new information and reveal changed circumstances that require Defendants to further assess how much TRU waste the proposed action will generate, whether there is a location for that waste to be properly disposed and whether, if priority is given to that waste for disposal, what the results of that prioritization will be on other locations throughout the complex if TRU waste stored or generated there is not allowed to be disposed at WIPP. Defendants' failure to consider this new information and changed circumstances was arbitrary and capricious and violated NEPA. *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1151 (9th Cir. 1998) (“[a]ccurate scientific analysis, expert agency

comments and public scrutiny are essential in implementing NEPA”)(citations omitted; emphasis in original).

IV. DEFENDANTS VIOLATED NEPA BY NOT ADDRESSING THE NEW INFORMATION AND CHANGED CIRCUMSTANCES CONCERNING RADIATION RISKS FROM IMPROPERLY STORED TRANSURANIC WASTE.

A supplemental EIS is required when an agency ascertains new, pertinent information about a significant environmental issue related to its proposed action.

The highest radioactive dose for workers in the CT SPEIS was, at LANL, 290-380 mrem/year, while the average dose for a worker at SRS was estimated to be 290 mrem/year. ECF No. 50-4, CT SPEIS_17234; ECF No. 50-5, CT SPEIS_17453. The SA CT SPEIS estimated that the worker and public doses for pit production at LANL and SRS would be less than those estimated in the CT SPEIS due to a lower production of pits. ECF No. 81-1, CT SPEIS_68267, 68274. Similarly, the LANL SA SWEIS does not address the issues raised in this report either.

Finally, the SRS EIS does not address environmental consequences from these potential energetic reactions in its discussion of radiation exposure to workers at SRS, the public located near SRS or during transportation of transuranic waste. The SRS EIS estimates radiation doses to the public below 10 millirem and otherwise below regulatory limits while the dose for workers would be, collectively between 178-200 person-rem, ECF No. 107-4, SRS_6319-20, 6351, whereas the radiation doses from the report far exceed that range. An agency decision is arbitrary and capricious if it “entirely fails to consider an important aspect of the problem.” *Sierra Club, Inc. v. U.S. Forest Serv.*, 897 F.3d 582, 590 (4th Cir. 2018).

The SA CT SPEIS states that 2008 CT SPEIS estimated potential for accidents with high consequence and high risks at both LANL and SRS and concluded that, for each site, there was not a greater probability of occurrence or greater radiological releases or impacts that those

identified in the CT SPEIS. ECF No. 81-1, CT SPEIS_68268-68275. This predated the events that precipitated the 2020 DNFSB Report.

Defendant DOE was provided with a copy of the 2020 DNFSB report in September of 2020—several weeks before the Second AROD for the CT SPEIS and the ROD for SRS. Plaintiffs also provided Defendants with a copy of the report prior to those decisions. The contents of this 2020 DNFSB Report constitutes new information and Defendants were required to take a hard look at the environmental consequences that this report relates. Their failure to do so is arbitrary and capricious and is a violation of NEPA.

In the 2020 DNFSB Report, DNFSB staff reviewed several LANL areas, including PF-4 where pits are to be produced and concluded that “LANL facilities may not have appropriate controls to protect workers and the public.” 2020 DNFSB Report at p. 17. DNFSB staff further concluded that there was potential for lethal radioactive doses of 760 rem to workers at PF-4 and other LANL facilities, and a potential public dose of 24 rem from PF-4. *Id.* at Table 1, Postulated Unmitigated Dose Consequences for an 80 PE-Ci Container, p. 10.

These levels of exposure exceed the levels contemplated in the SA CT SPEIS, the LANL SA SWEIS and the SRS EIS. Moreover, the frequency of the events, one in 2014 and another in 2018, that prompted the 2020 DNFSB Report was also not considered in estimating the probability of a dangerous event that could harm workers, the public and the environment. The DNFSB report ultimately concluded that a chemical reaction event that occurred at WIPP and INL may occur when TRU waste is generated, stored or processed and that, given the review of several areas at LANL, including PF-4, “LANL facilities may not have appropriate controls to protect workers and the public[]” from radiation as a result of TRU energetic reactions. *Id.* at 17. The Report also stated that “DOE directives do not provide adequate guidance and requirements for analyzing and

controlling energetic chemical reaction events at waste generator sites.” *Id.* Under the current proposal, SRS and LANL would generate extensive TRU waste during pit production over several decades.

In *Sierra Club*, the Fourth Circuit held that there was no rationale in the record to explain why the Forest Service changed its thinking when it apparently shifted from contending that a forty-eight percent (48%) sediment containment was realistic to agreeing to a seventy-nine percent ceiling (79%) regarding sedimentation containment in the project area. 897 F.3d at 594–96. Finding the agency acted arbitrarily and capriciously, the court remanded the matter to the Forest Service to address the issues. *Id.* at 596.

Similarly, in *Wild Virginia*, the Fourth Circuit held that the Forest Service had violated NEPA, and other statutes, because “[t]here [was] no evidence that the agencies reviewed the USGS water quality monitoring data from the Roanoke River, which may indicate a significant increase in sedimentation beyond that predicted in the modeling used for the supplemental EIS. At the very least, the supplemental EIS should have acknowledged the disparity and explained its impact on the agencies’ reliance on the sedimentation data in the hydrological analyses.” 24 F.4th at 928.

“At the least, ... [a hard look] encompasses a thorough investigation into the environmental impacts of an agency's action and a candid acknowledgment of the risks that those impacts entail. *Nat'l Audubon Soc'y v. Dep't of Navy*, 422 F.3d 174, 185 (4th Cir. 2005) (citing *Robertson*, 490 U.S. at 350). Defendants failed to take the requisite “hard look” at this new information both in the context of the programmatic environmental evaluations in the SA CT SPEIS and in the individual evaluations contained in the LANL SA SWEIS and the SRS EIS. *Olmstead Citizens for a Better Community v. United States*, 606 F. Supp. 964, 979 (D. Minn. 1985) (citing *Silva v. Lynn*, 482 F.2d 1282, 1285 (1st Cir. 1973)) (“Comments from responsible experts that cause

concern that a project and its alternatives have not been fully explored require a good faith reasoned analysis by the agency in response.”).

The regulations likewise make consideration of substantive public comments mandatory. 40 C.F.R. § 1503.4(a)(“[a]n agency preparing a final environmental impact statement shall consider substantive comments timely submitted during the public comment period”).

While NEPA may not mandate a particular result, it does require that agencies “ensure citizens and officials are informed and allowed to comment on agency action before decisions are made.” *Biodiversity Associates v. U.S. Forest Service Dept. of Agriculture*, 226 F. Supp. 2d 1270, 1279 (D. Wyoming 2002) (citing *Environmental Defense Fund, Inc. v. Andrus*, 619 F.2d 1368, 1374–78 (10th Cir. 1980)). This requirement is necessary to realize the purpose of NEPA: “to foster better decision-making and **to permit informed public participation** for actions affecting humans and nature.” *League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Service*, 187 F. Supp. 2d 1263 (D. Or. 2002) (citations omitted) (emphasis added).

Defendants did not evaluate the new information related to potential radiation exposure to workers and the public that could result from improperly packed and stored TRU waste. Defendants also failed to consider how the frequent reactions detailed in the report increase risk for this extreme exposure. Defendants violated NEPA by these arbitrary and capricious acts.

V. DEFENDANTS VIOLATED NEPA BY FAILING TO TAKE A HARD LOOK AT CHANGED CIRCUMSTANCES CONCERNING TERROR THREATS TO TRANSPORTATION OF NUCLEAR MATERIALS AND WASTE.

NEPA requires Defendants to consider public comments and take a “hard look” at environmental issues that accompany various alternatives. With the proposed dual site pit production, there is extensive transportation of nuclear materials, including waste and components of nuclear weapons, throughout the United States including from Pantex to SRS, Y-12 to SRS,

SRS to Y-12, LANL to SRS Pantex or LANL to SRS. ECF No. 107-2, SRS_00005306-07 There has already been discussion about the transport of waste from LANL and SRS to WIPP.

The SA CT SPEIS, the LANL SA SWEIS and the SRS EIS all purported to review a “classified Appendix” that was prepared in connection with the CT SPEIS in 2008 and each of these reviews concluded that the classified Appendix analysis “is reasonable and adequate to represent the proposed action....” ECF No. 81-1, CT SPEIS_68280; ECF No. 107-4, SRS_00006330; ECF No. 89-3, LANL SA_09098. The SA CT SPEIS states that “[p]otential impacts from intentional destructive acts would be independent at each site.” ECF No. 81-1, CT SPEIS_68280.

In discussing Intentional Destructive Acts in the SRS EIS Appendix A which is supposed to identify methodologies employed, NNSA simply states that it reviewed the classified appendix and the analysis is reasonable and adequate to address the proposed action. ECF No. 107-3, SRS_00005703.

This conclusion is echoed in the SRS EIS responses to comments where NNSA again referenced a review of the Appendix, noted that an intentional destructive act’s impacts could exceed those in an accident and concluded that cyberattacks would not exceed previously reviewed impacts. ECF No. 107-3, SRS_00005848.

The Transportation sections of the CT SPEIS, SA CT SPEIS, LANL SA SWEIS and the SRS EIS all evaluate the potential health and safety risks for transportation of nuclear materials for incident-free transportation, risks associated with an accident and then total annual health effects. *See* ECF No. 51-1, CT SPEIS_17551-59 (CT SPEIS); ECF No. 81-1, CT SPEIS_68281-82, 68400 (SA CT SPEIS); ECF No. 45-3, CT SPEIS_09437 (LANL SA SWEIS); ECF NO. 107-4, SRS_6335-36 (SRS EIS). None of these analyses purport to address any radiological risks from

an intentionally destructive act focused on causing radiation exposure. There is no indication that the classified Appendix purported to address such attacks either—especially as it stated that impacts from such actions would be “independent at each site.”

The 2008 CT SPEIS does not mention Russian, Chinese or North Korean development of nuclear weapons as a basis for assessing pit production alternatives. ECF No.54-8, CT SPEIS_24694-95. Instead, the 2008 CT SPEIS noted that cooperation between the United States and Russia allowed a reduction of the U.S. nuclear weapons stockpile. ECF No. 54-8, CT SPEIS_24668. The SA CT SPEIS, however, specifically referred to “[g]rowing threats” from Russia and China adding to their respective arsenals and engaging “in increasingly aggressive behavior, including in outer and cyber space.” ECF No. 81-1, CT SPEIS_68230. Meanwhile, North Korea “continues its illicit pursuit of nuclear weapons and missile capabilities in direct violation of United Nations Security Council resolutions....” *Id.*

In comments, Plaintiff Tri-Valley Communities Against a Radioactive Environment noted that change in waste streams, additional waste management at multiple locations, and waste streams traversing the county and stated the following: “the increased risk of a terrorist attack on shipments of materials and plutonium pits must be analyzed under NEPA with a look to the entire shipping route. None of this was analyzed in the Complex Transformation Supplemental PEIS.” ECF 106-1, SRS_00000693. But this comment was responded to and there is no indication that Defendants undertook such an evaluation at any time.

NEPA requires Defendants to “assess, consider, and respond to all comments[.]” *Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 537 (8th Cir. 2003) (citing 40 C.F.R. § 1503.4(a)); *see also Western Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 492–93

(9th Cir. 2011) (agency “required to ‘assess and consider ... both individually and collectively’ the public comments received during the NEPA process and to respond”) (citations omitted).

Defendants were required to take a hard look at the changed circumstances concerning terrorist threats and also were required to respond to Plaintiffs’ comments on this issue. Their failure to do so was arbitrary and capricious and violates their obligations under NEPA.

CONCLUSION

Plaintiffs respectfully request that this Court grant Plaintiffs’ request to complete or supplement the administrative record, that this Court declare that Defendants violated NEPA by failing to prepare and circulate for comment a new or supplemental programmatic environmental impact statement concerning pit production, that this Court enter an injunction to ensure that Defendants comply with NEPA and any applicable other laws, including Executive Orders, and also to ensure that Defendants take no further actions toward proceeding with their plutonium pit production plans until they have complied with NEPA and other applicable laws, and that this Court award Plaintiffs their fees, costs and other expenses as provided by law.

Respectfully submitted this 3rd day of May, 2024.

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