UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TENNESSEE

OAK RIDGE ENVIRONMENTAL PEACE ALLIANCE, NUCLEAR WATCH OF NEW MEXICO, NATURAL RESOURCES DEFENSE COUNCIL, RALPH HUTCHISON, ED SULLIVAN, JACK CARL HOEFER, and LINDA EWALD,	)	
Plaintiffs,	)	
	)	**No. 3:18-cv-00150**
v.	)	**REEVES/POPLIN**
JAMES RICHARD PERRY, Secretary, United States Department of Energy, and LISA E. GORDON-HAGERTY, Administrator, National Nuclear Security Administration,	)	
Defendants.	)	

PLAINTIFFS' COMBINED OPPOSITION TO DEFENDANTS' MOTION FOR SUMMARY JUDGMENT AND REPLY IN SUPPORT OF PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

Cases

Statutes

Other Authorities

GLOSSARY

APA	Administrative Procedure Act
AR	Administrative Record
CE	Categorical Exclusion
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
EA	Environmental Assessment
EIS	Environmental Impact Statement
ELP	Extended Life Program
IG	Inspector General
NEPA	National Environmental Policy Act
NNSA	National Nuclear Security Administration
OREPA	Oak Ridge Environmental Peace Alliance
SA	Supplement Analysis
SEIS	Supplemental Environmental Impact Statement
SWEIS	Site-Wide Environmental Impact Statement
UPF	Uranium Processing Facility
USGS	United States Geological Survey
Y-12	The Y-12 National Security Complex

I. INTRODUCTION.

At its core, this case is about the public's ability meaningfully to participate in agency decisions that directly affect their lives. As Plaintiffs explained, the National Nuclear Security Administration ("NNSA") violated the National Environmental Policy Act ("NEPA") by deciding to accept risks to the public—including risks of uncontrolled and uncontained nuclear accidents and radioactive and toxic contamination—without providing the public any opportunity to participate in that decision in the manner that NEPA demands. Based on cost, NNSA abandoned its prior decision to safely replace dilapidated facilities at the Y-12 National Security Complex ("Y-12"), where the agency processes enriched uranium for nuclear weapons, with a single, modern Uranium Production Facility ("UPF"). Instead, NNSA opted to build a cheaper, more modest UPF and to continue relying on old, structurally unsound buildings for decades—without upgrading those old buildings to comply with modern safety standards.

As NNSA spent five years from 2011 to 2016 formulating a new, cheaper plan, members of the public, including Plaintiffs who live near Y-12, made multiple requests for the public participation and transparency that Congress envisioned in NEPA. *See* 40 C.F.R. § 1500.2(d) ("agencies shall to the fullest extent possible . . . [e]ncourage and facilitate public involvement in decisions which affect the quality of the human environment"). Yet, while adopting a new approach, NNSA did not inform the public, took no comments, and held no hearings.

Plaintiffs contend that NNSA's creation of its new plan—especially its decision to accept risks to public health and safety because the agency unilaterally deemed it too costly to upgrade old buildings to modern safety standards—required it to involve the public in some new NEPA process. In response, Defendants rely on the misguided notion that preparation of a Site-Wide Environmental Impact Statement ("SWEIS") in 2011 fully satisfied NEPA's aim of promoting

informed public participation. However, the 2011 SWEIS provided no opportunity for input into NNSA's later decision to rely on dilapidated buildings without meeting modern standards.

As Plaintiffs explained, Br. at 2, and Defendants do not dispute, informed public participation in agency decisionmaking is one of NEPA's "twin aims." *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983), and analyzing alternatives to proposed agency action "is the heart" of the NEPA process. 40 C.F.R. § 1502.14. Agencies must compare alternatives, "providing a clear basis for choice among the options by the decisionmaker *and the public*." *Id.* (emphasis added). Courts determine whether an agency's NEPA process actually fosters "both informed decision making and informed public participation." *Isle Royale Boaters Ass'n v. Norton*, 154 F. Supp. 2d 1098, 1111, 1127 (W.D. Mich. 2001). Public participation routinely includes submitting reasonable alternatives to a proposed action, which agencies must consider. *See, e.g.*, *Meister v. U.S. Dep't of Agric.*, 623 F.3d 363, 377–80 (6th Cir. 2010) (an agency violated NEPA by failing to consider a reasonable alternative submitted by the public).

In this case, the public's last (and only) chance to participate in NNSA's actual decision-making was when the agency prepared its SWEIS in 2011, which told the public that the agency would build a modern UPF to safely replace old, vulnerable facilities. The SWEIS assured the public that if NNSA were to continue using old facilities, they would be upgraded "to contemporary environmental, safety, and security standards to the extent possible within the limits of the existing structures." AR16947. Indeed, the 2011 SWEIS's stated "purpose and need" included "[c]omply[ing] with modern building codes and environment, safety, and health standards." AR16875–76. Yet when NNSA subsequently jettisoned the approach it adopted in 2011 in favor of a smaller, cheaper UPF that continues to rely on old, structurally unsound buildings—without "bring[ing] the long-range Y-12 [enriched uranium] facilities to current

seismic standards," AR20632—the affected public was ignored. As Plaintiffs explained, NNSA's new decision is motivated chiefly by cost, Br. at 6–8, 26–28, with the "premise" that "risk acceptance will occur in lieu of spending." AR26062. One such risk is that an earthquake—such as the recent earthquakes in eastern Tennessee—may cause NNSA's old buildings to collapse, triggering uncontrolled and uncontained nuclear reactions and releasing radioactive and toxic contamination into the environment and local communities. Br. at 8–11. Yet the public had no opportunity to participate in NNSA's decision to "accept" risks that the agency unilaterally deems too costly to correct. Instead, NNSA consulted only individuals *of its own choosing*, Br. at 7, without even providing public notice of its new decision-making process, let alone any ability to participate. Indeed, NNSA ignored a request from Plaintiff Oak Ridge Environmental Peace Alliance ("OREPA") in 2014 for a new NEPA analysis. AR18357. Likewise, when NNSA released its 2016 Supplement Analysis ("2016 SA") and Amended Record of Decision, committing to continue relying on old, vulnerable buildings, it did so *with no public involvement*.

NNSA's failure to involve the public when the agency fundamentally altered its approach had significant consequences. The most glaring concerns NNSA's Extended Life Program ("ELP"), the agency's "new program," AR20473, for maintaining old buildings without upgrading them to meet modern safety standards. NNSA describes the ELP as providing "a forum for key stakeholders to come to agreement on the strategy to reduce, mitigate, and accept the nuclear safety risk associated with long-term operation of [old] facilities." AR29951. Yet when it created the ELP, Defendants concede that NNSA did not involve the public or, for that matter, prepare any NEPA analysis for that "new program," AR20473.

If, as required, NNSA had prepared an Environmental Impact Statement ("EIS") or at least an Environmental Assessment ("EA") for the ELP, it would have had to consider public

input and a range of reasonable alternatives for this new program. Defendants now claim that the 2011 SWEIS conducted any required analysis, but the SWEIS was significantly different in scope. The 2011 *Site Wide* EIS only considered alternatives for the *overall* modernization of *the entire* Y-12 Complex, whereas an EIS or EA for the ELP would consider alternatives for *that particular new program*. Thus, NEPA compliance would allow the public to propose reasonable alternatives, including: (1) other buildings NNSA might use; (2) criteria to determine when upgrades are too costly; (3) complying with modern codes; (4) conducting seismic studies and determining what upgrades to implement *before* committing to use old buildings; (5) performing seismic upgrades first; (6) assuring that nuclear materials remain subcritical (i.e. under control) in an earthquake; (7) installing active confinement systems to prevent radioactive or toxic contaminants from spreading; or (8) upgrading fire safety systems. However, because NNSA never engaged in any NEPA process that considered alternatives for the ELP, it deprived the public of the opportunity for informed participation—and failed to ever consider alternatives in *any* NEPA document. As discussed below, this serious NEPA violation warrants judicial relief.[1]

II. NNSA'S FAILURE TO EVALUATE THE IMPACTS OF, AND ALTERNATIVES TO, THE ELP VIOLATES NEPA.

A. No NEPA Document Has Analyzed the ELP.

As Plaintiffs explained, Br. at 26–28, the ELP is a "new program," AR20473, that has never been the subject of an EIS or even an EA. Defendants vainly argue that the ELP "is neither

[1] Taking comments on the 2018 Supplement Analysis ("SA")—issued in response to this case—provided no chance to participate in NNSA's actual decision-making, which occurred in 2016, when NNSA did not accept comments. Thus, the public had no chance to propose alternatives while NEPA required their consideration. Indeed, when commenters tried to raise alternatives in 2018, NNSA refused to consider them. *See* AR31142 ("an analysis of alternatives . . . is beyond the scope of [the 2018] SA"); AR31140 (the 2018 SA "does not include within it a range of reasonable alternatives").

a new action nor an action that has never been subjected to NEPA review." Govt. Br. at 11. However, while the government argues that the ELP was analyzed in the 2011 SWEIS, the 2016 SA, and the 2018 SA, *id.*, none of those documents satisfies NEPA's requirements for the ELP.

1. The 2011 SWEIS did not analyze the Extended Life Program.

The 2011 SWEIS did not—and could not—analyze the ELP. The ELP "was established" *after* 2011 "[i]n *response* to NNSA's decision to reduce the scope of the UPF and continue certain EU operations in existing facilities." AR31085 (emphasis added). Indeed, NNSA developed the ELP in 2015—four years after issuing the 2011 SWEIS. AR30055; *see also* Br. at 8–11. Thus, this "new program," AR20473, *did not exist* when NNSA prepared the 2011 SWEIS. Moreover, the government's insistence that the 2011 SWEIS fully analyzed the ELP in the "Upgrade in-Place" alternative fails on both the law and the facts.

As a legal matter, the 2011 SWEIS could not have included the ELP because the ELP does not meet the 2011 SWEIS's "purpose and need." "[A]lternative actions are measured against the Purpose and Need Statement," and an alternative that does "not accomplish the stated purpose and need" is "not a reasonable alternative that would require a detailed study." *Little Traverse Lake Prop. Owners Ass'n v. Nat'l Park Serv.*, 883 F.3d 644, 655 (6th Cir. 2018); *see also Coal. for Advancement of Reg'l Transp. v. Fed. Highway Admin.*, 959 F. Supp. 2d 982, 1001 (W.D. Ken. 2013) ("The Purpose and Need Statement is critical as it dictates the reasonable range of alternatives the agency will consider."). Here, as explained, Br. at 6, 8, 27, the 2011 SWEIS's "purpose and need" included "[c]omply[ing] with modern building codes and environment, safety, and health standards." AR16875–76. Thus, NNSA assured the public that the Upgrade in-Place alternative would "upgrade the existing . . . facilities to contemporary environmental, safety, and security standards to the extent possible . . . ." AR16947, and that

although the buildings "do not meet modern standards related to . . . earthquakes," this alternative would "require structural upgrades *to bring the buildings into compliance*." AR16948 (emphasis added). On that basis, NNSA found the Upgrade in-Place alternative a "reasonable alternative." AR16928. In stark contrast, the ELP's "plan is *not* to bring the long-range Y-12 [enriched uranium] facilities to current seismic standards." AR20632 (emphasis added). The ELP thus does not meet the 2011 SWEIS's Purpose and Need to "[c]omply with modern building codes and environment, safety, and health standards." AR16876. Because the Upgrade in-Place alternative *did* meet the Purpose and Need but the ELP will not, the government's assertion that the 2011 SWEIS analyzed the ELP in the Upgrade in-Place alternative fails as a matter of law.

Defendants' attempt to conflate the ELP and the Upgrade in-Place alternative fares no better logically. As explained, the ELP is expressly limited by cost, but the Upgrade in-Place alternative was not. Br. at 26–28. Defendants wrongly insist that the 2011 SWEIS's assurance that NSNA would upgrade old buildings "to the extent possible" somehow equates to the later decision to adopt "risk acceptance in lieu of spending." Govt. Br. at 27. However, just as there is a vast difference between a doctor saying she will do everything *medically possible* to save a patient rather than saying she will do everything a patient can *afford*, there is a stark difference between the Upgrade in-Place alternative's assurance that NNSA would make all upgrades that are physically possible "within the limits of existing structures," AR16880, and the ELP's refusal to make upgrades NNSA deems "prohibitively expensive" AR20632. [2]

[2] Defendants argue that "[i]n specifying that upgrades under this alternative would only be undertaken 'to the extent possible within the limits of existing structures, AR-_0016880, NNSA described an alternative that was plainly subject to the structural limitations of the existing facilities *and that involved 'some risk acceptance in lieu of spending*.'" Govt. Br. at 27 (quoting AR_0026062) (emphasis added). Crucially, however, the phrase "some risk acceptance in lieu of spending" comes from NNSA's *later* description of the ELP in 2015, *not from the 2011 SWEIS*.

Indeed, as Plaintiffs explained, Br. at 33, the 2011 SWEIS simply did not inform the public that meeting safety standards under the Upgrade in-Place alternative could be limited by costs. In fact, the SWEIS's *only mention* of costs in describing the Upgrade in-Place alternative is that "[u]pgrades would be performed over a 10-year construction period . . . to spread out the capital costs." AR16948. Moreover, NNSA clearly knew how to tell the public that it would treat costs as a limiting factor. *See* AR17109 (NNSA would implement carbon emission reductions that are determined to be "feasible *and cost-effective*" (emphasis added)). The SWEIS simply did not make any such statement about upgrading existing facilities to address seismic risks.

Nor is there merit to the suggestion, Govt. Br. at 27, that the 2011 SWEIS indicated that the Upgrade in-Place alternative would be as risky as the ELP by stating that "it would not be possible to attain the combined level of safety, security, and efficiency made possible by the UPF alternative." AR16880. That statement touted the advantages of maintaining all activities in a single building, but did not suggest that the Upgrade-in-Place alternative would fail to satisfy current safety standards. Indeed, *the same sentence* Defendants cited assures the public that under the Upgrade in-Place alternative "existing production facilities *would be modernized*," *id.* (emphasis added), whereas the ELP's explicit "plan is *not to bring the [existing] facilities to current seismic standards*." AR20632 (emphasis added). The unavoidable reality is that the ELP differs fundamentally from the Upgrade in-Place alternative, and thus Defendants' argument that NNSA somehow analyzed the 2016 decision to adopt a new program with new objectives when it issued the SWEIS five years earlier is devoid of legal or logical merit.

2. The 2016 SA cannot cure the failure to prepare an EIS or EA for the ELP.

The government fares no better by arguing that the 2016 SA analyzed the ELP. Govt. Br. at 18–20. As explained, Br. at 36, the SA was backward-looking—justifying a decision that had

already been made—and thus did not facilitate informed decision-making or public participation as would an EIS or EA. Indeed, NNSA issued the 2016 SA *with no public involvement*. Moreover, the 2016 SA did not take a "hard look" at the ELP. In fact, the 2016 SA included the phrase "extended life program" exactly once, AR20621, and did not consider alternatives.[3]

In discussing the 2016 SA, the government again wrongly downplays the key differences between the ELP and the Upgrade in-Place alternative, suggesting they are the same because both included certain limited upgrades. Govt. Br. at 19. However, again, the Upgrade in-Place alternative "require[d] structural upgrades to bring the buildings into compliance" with "modern standards related to . . . earthquakes," AR16948, but the 2016 SA said that NNSA was refusing to make such upgrades because the agency deemed them "prohibitively expensive," AR20632. Because the ELP relied on costs to refuse to make seismic upgrades required under the Upgrade in-Place alternative, the assertion that they are the same is without merit, and the contention that the 2016 SA analyzed the ELP must thus fail.[4]

3. The 2018 SA did not provide the required analysis of the ELP.

There is also no merit to Defendants' suggestion that the 2018 SA satisfies the agency's NEPA obligations for the ELP. NNSA issued the 2018 SA *three years after* designing the ELP,

[3] In contrast to the 2016 SA's cursory treatment of the ELP, the record contains hundreds of pages about the ELP that NNSA withheld from the public until it had to produce the record in this case. *See, e.g.,* AR20429–20594; AR26047–26156. This voluminous internal consideration of the ELP makes it clear that the 2016 SA's cursory public discussion did not fulfill NEPA's goals of promoting informed public participation.

[4] The government misleadingly asserts that "as under the Upgrade in-Place alternative, the 2016 SA acknowledged that, *due to limitations in the existing facilities*, NNSA did not presently plan to upgrade those facilities to current seismic standards." Govt. Br. at 19 (emphasis added). This is flatly contradicted by the 2016 SA's clear statement that NNSA would not make upgrades because it deems them "prohibitively expensive." AR20632. Indeed, confirming that "limitations in the existing facilities" *do not* foreclose meeting modern safety standards, the government's own brief states that "it may even be possible to upgrade these existing facilities up to modern seismic standards." Govt. Br. at 45.

whereas NEPA requires agencies to take a "hard look . . . before taking a major action." *Balt Gas & Elec. Co.*, 462 U.S. at 97, such as this "new program." AR20473. Far from taking a "hard look" at environmental impacts, or any alternatives for the ELP, the 2018 SA revealed for the first time that NNSA is implementing the ELP through "primarily categorical exclusions," AR30991—which do not afford public input and wrongly deny that ELP activities are connected or have any significant impacts. *See infra at* 18. Again, the assertion that the ELP "is not a new program," Govt. Br. at 20 (citing AR31145), defies NNSA's own prior description of the ELP as "a new program." AR20473; *see also* AR30056 ("ELP is a new endeavor").

B. The ELP Requires Analysis in an EIS, or At Least an EA.

As explained, Br. at 16–19, the "new program" of the ELP, AR20473, plainly requires an EIS. Indeed, the definition of "Federal action," 42 U.S.C. § 4332(C), specifically includes the "[a]doption of programs." 40 C.F.R. § 1508.18(b)(3). Accordingly, the new Extended Life *Program* required an EIS, or at the very least, an EA. *New York v. Nuclear Regulatory Comm'n*, 681 F.3d 471, 478 (D.C. Cir. 2012) (activity that "is a major federal action . . . requires an EIS or, alternatively, an EA"); *United States v. City of Detroit*, 329 F.3d 515, 529 (6th Cir. 2003) (Moore, J., concurring) ("The NEPA regulations' default rule is that federal actions, unless shown to be to the contrary, require preparation of an EA."). The government has no convincing response.

1. Even if the ELP were merely an implementing action, as opposed to a new program, it would still require an EIS or EA.

The government asserts that no EIS is necessary because NNSA took "the requisite 'hard look' at the environmental impacts of the ELP" in the 2011 SWEIS and is now merely "properly implementing that program." Govt. Br. at 26. Plaintiffs have already explained that the 2011 SWEIS did not analyze the ELP. Moreover, the ELP would require an EIS—or at least an EA—even if it were merely implementing the 2011 SWEIS (which as discussed above it is not).

When an agency prepares a "broad environmental impact statement," NEPA allows it to "tier" analysis of an implementing action "to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review." 40 C.F.R. § 1502.20; *see also Northwoods Wilderness Recovery, Inc. v. U.S. Forest Serv.*, 323 F.3d 405, 407 (6th Cir. 2003) (noting that broad "[f]orest plans, as well as site-specific proposals, must be prepared in compliance with [NEPA]"). "It is at this stage, when the agency makes a critical decision to act, that the agency is obligated fully to evaluate the impacts of the proposed action." *W. Watersheds Proj. v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013). "Somewhere, the [agency] must undertake site-specific analysis, including consideration of reasonable alternatives." *Ilio'Ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1097 (9th Cir. 2006).

Consistent with NEPA's tiering concept, the 2011 SWEIS's purpose is to "provide[] an overall NEPA baseline for a site that is useful as a reference *when project-specific NEPA documents are prepared*." AR16887 (emphasis added); *see also* 10 C.F.R. § 1021.104 (defining "Site-wide NEPA document" as "a broad-scope EIS or EA that is programmatic in nature"). Thus, the 2011 *Site Wide* EIS, which applied to the whole of Y-12 modernization, is a broad-scale analysis to which future projects could refer to avoid repetitive discussions. *See* AR31062 ("Stand-alone NEPA documents for future projects would be prepared as needed *and tiered to the 2011 SWEIS*." (emphasis added)). And, in fact, NNSA has prepared an EA, tiered to the 2011 SWEIS, for an Emergency Operations Center Project, which was a component of "three of the[] alternatives [in the 2011 SWEIS]." AR19747.

The government's brief effectively concedes that—to the extent *any* NEPA analysis has been prepared bearing on the ELP—it occurred only at the 2011 SWEIS's broader scale regarding the entire modernization of Y-12, as opposed to any level that considers the impacts

of, or alternatives to, the ELP itself. *See* Govt. Br. at 28 ("the NEPA compliance for that programmatic decision [to approve the ELP] is contained in the 2011 SWEIS and 2016 AROD" (emphasis added)); *see also id.* at 31 (arguing that NNSA "analyz[ed] the programmatic impacts of the ELP in the 2011 SWEIS and 2016 SA").

However, the 2011 SWEIS's extremely broad analysis differs critically from the more focused analysis that NEPA required for the ELP. Most conspicuously, the 2011 SWEIS did not consider any reasonable alternatives for the ELP—nor did any NEPA document in the record. As discussed above, a consideration of reasonable alternatives for the ELP would have addressed such obvious issues as which buildings to upgrade, whether to bring them into compliance with modern codes, whether to gather necessary information on seismic risks before making a decision, whether to ensure that nuclear processes remain subcritical in the event of emergencies, and whether to install confinement systems to ensure that radioactive and toxic contamination do not spread to affect the public—none of which are considered in any NEPA document in the record. Thus, whether Defendants' NEPA violation is viewed as a wholesale failure to prepare any NEPA document on a new program or as a failure to properly tier off the 2011 SWEIS, the unavoidable fact is that NNSA impermissibly deprived the public of the chance to obtain information and participate in decisions that pose clear and severe risks to the public. *See Rumsfeld*, 464 F.3d at 1097 ("Somewhere, the [agency] must undertake site-specific analysis, including consideration of reasonable alternatives.").

Defendants place heavy, but mistaken, reliance on cases concerning when an agency must prepare a *supplemental* EIS, Govt. Br. at 21–24. Because the issue here is whether the ELP,

as a "new program," AR20473, requires an EIS—or at least an EA—in the first place, these cases are distinct. In contrast, here NNSA has failed to prepare any EIS or EA for the ELP.[5]

Moreover, even if case law concerning when SEISs must be prepared were probative here, it would not assist Defendants. Even under the Defendants' theory of the case, the 2011 SWEIS *rejected* the Upgrade-in-Place alternative on environmental grounds. Even assuming that this alternative was essentially the same as the ELP—which it was not—a leading NEPA precedent holds that, in view of NEPA's purposes, an SEIS is required when an agency has rejected an action as too environmentally harmful and then subsequently seeks to take an action that "closely resembles the rejected alternative." *Klamath-Siskiyou Wildlands Ctr. v. Boody*, 468 F.3d 549, 562 (9th Cir. 2006). Accordingly, if Defendants are correct that the ELP is similar to the Upgrade in-Place alternative, the fact that NNSA rejected that alternative because it was less safe, secure, and efficient than building a single, new UPF, *see* AR16880, yet has now resurrected that unsafe, insecure, and inefficient alternative, is sufficient to warrant an SEIS that would at the very least consider alternatives for minimizing and mitigating the impacts. *Id.*

2. NEPA's implementing regulations make clear that an EIS is required.

As explained, Br. at 16–19, NEPA requires an EIS for any "major Federal action significantly affecting the quality of the human environment," 42 U.S.C. § 4332(C), and NEPA's implementing regulations define "significantly" through ten "intensity" criteria, 40 C.F.R. § 1508.27. Evidently concerned that the intensity criteria do show an EIS is necessary for the ELP,

[5] *See In re Operation of Mo. River Sys. Litig.*, 516 F.3d 688, 692 (8th Cir. 2008) (discussing an agency's EA); *Hodges v. Abraham*, 300 F.3d 432, 441 (4th Cir. 2002) (discussing a *series of EISs*, and recognizing that "analyz[ing] the utilization of a 'hybrid' approach" in an EIS is "the next step in the NEPA process"); *Beyond Nuclear v. U.S. Dep't of Energy*, 233 F. Supp. 3d 40, 45 (D.D.C. 2017) (discussing what Defendants describe as "several prior EISs," Govt. Br. at 22); *Great Old Broads for Wilderness v. Kimbrell*, 709 F.3d 836, 841 (9th Cir. 2013) (concerning an EIS for a specific road repair project).

Defendants erroneously argue that "the intensity factors by themselves are not dispositive of whether an EIS need be prepared." Govt. Br. at 24. This argument verges on frivolity.

Contrary to Defendants' attempt to downplay NEPA's implementing regulations—which are "binding on all Federal agencies, 40 C.F.R. § 1500.3—courts across the country have for many years required agencies to prepare EISs on the basis of the intensity criteria. *See, e.g.*, *Nat'l Parks Conservation Ass'n v. Semonite*, 916 F.3d 1075, 1082–88 (D.C. Cir. 2019); *Friends of Back Bay v. U.S. Army Corps of Eng'rs*, 681 F.3d 581, 589–90 (4th Cir. 2012); *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 865 (9th Cir. 2005); *Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220, 1229–30 (10th Cir. 2002); *Sierra Club v. Marsh*, 769 F.2d 868, 882 (1st Cir. 1985); *Anglers of the Au Sable v. U.S. Forest Serv.*, 565 F. Supp. 2d 812, 816 (E.D. Mich. 2008); *see also Tenn. Valley Authority v. Hill*, 437 U.S. 153, 158 (1978) (noting that the Sixth Circuit affirmed an injunction of agency action "pending . . . an appropriate [EIS]" (citing *Envtl. Def. Fund v. Tenn. Valley Authority*, 339 F. Supp. 806 (E.D. Tenn. 1972)).[6]

Likewise, Defendants wrongly deny that any one intensity criterion may require an EIS, Govt. Br. at 24. "Implicating any one of the factors may be sufficient to require development of an EIS." *Semonite*, 916 F.3d at 1082; *Ocean Advocates*, 402 F.3d at 865 ("one of these factors may be sufficient to require preparation of an EIS"). In any event, as explained, Br. at 16–19, several intensity criteria show that the ELP requires an EIS.

First, Plaintiffs explained that the ELP's impacts are "highly uncertain or involve unique

[6] The government's contrary citations are misleading and inapposite. *Klein v. U.S. Dep't of Energy* affirms the importance of the intensity criteria by holding that *the agency actually considered* each factor in "a thorough environmental assessment" and found the project's effects insignificant under each. 753 F.3d 576, 584–85 (6th Cir. 2014); *see also Coliseum Square Ass'n, Inc. v. Jackson*, 465 F.3d 215, 240 (finding that an agency EA provided an adequate "assessment of various individual intensity factors"). Here, NNSA has not even prepared any EA for the ELP.

or unknown risks," 40 C.F.R. § 1508.27(b)(5), including important uncertain seismic risks to aging buildings. Br. at 17–18. Indeed, NNSA does not even know what "seismic upgrades may be proposed." AR31146. Contrary to the government's response that the 2011 SWEIS adequately considered these issues, Govt. Br. at 25, in fact these uncertainties arose from significant differences between the ELP and the Upgrade in-Place alternative (as described above), and from information that did not exist in 2011. Most notably, NNSA conceded that "uncertainties in the seismic risks in the vicinity of the Y-12 Complex," AR31147, result from information that arose after 2011, including new reports from the United States Geological Survey in 2014 and subsequent years. *See* Br. at 11, 38. Moreover, NNSA concedes it must study these uncertain seismic risks and that the "safety basis" for existing buildings "will need to be updated to reflect updated seismic hazard information." AR31086. The assertion that this information—which did not exist in 2011—was somehow taken into account in the 2011 SWEIS, Govt. Br. at 25, contradicts the concession that NNSA is "continuing to evaluate the effects of updated seismic information," AR31146. Where an agency's analysis "indicates that further study is required, the agency must prepare an EIS." *Partners in Forestry Co-op, Northwood Alliance v. U.S. Forest Serv.*, 638 F. App'x 456, 461 (6th Cir. 2015).

Nor are seismic risks the only uncertain issue. For example, because NNSA refuses to upgrade existing facilities to meet modern safety standards, the agency remains uncertain about whether the ELP's upgrades can prevent uncontrolled nuclear criticality reactions and whether resulting contamination could be confined before it reaches the public. Br. at 17–18; *see also* AR29960 (future "evaluations may not be able to demonstrate subcriticality"); AR29969 (noting the need for future "discussions of any significant confinement deficiencies and risks"). Sensibly, modern safety standards do require facilities to remain subcritical and to confine contamination.

See AR20485 (noting "the requirement to demonstrate subcriticality"); *see also id.* ("the confinement ventilation system should safely withstand earthquakes"). Because ELP facilities do not meet these modern standards, an earthquake "may result in the release of *an undeterminable amount of radioactive materials*." *Id.* (emphasis added). Thus, the ELP entails highly uncertain risks. *See Au Sable.*, 565 F. Supp. 2d at 830–31 ("the accumulation of numerous vague, conclusory, and incomplete analyses" shows "uncertainty [that] is enough to trigger an EIS").[7]

Second, the ELP is also "highly controversial," 40 C.F.R. § 1508.27(b)(4), because "a substantial dispute exists as to the size, nature, or effect of the major federal action," *Northwood*, 638 F. App'x at 463, as shown by a "challenge[to] the scope of the scientific analysis, the methodology used, or the data presented by the agency," *Au Sable,* 565 F. Supp. 2d at 828. Defendants agree this is the relevant standard, Govt. Br. at 25–26, and argue only that comments from a seismologist, Dr. David Jackson, are not sufficient to show a controversy. *Id.* However, Defendants do not—and cannot—challenge Dr. Jackson's decades of directly relevant expertise, including expert advice on earthquake risks for California, the National Academy of Sciences, and the USGS. AR31649; *see also* Br. at 38–40. Dr. Jackson's "professional opinion" is that NNSA's review of seismic risks "falls far short of relevant professional and scientific standards" in serious ways, such as failing to use modern risk analysis tools. *See* AR31649–53. These criticisms go to the heart of the problem with NNSA's decision: "Committing to the use of these vulnerable facilities before obtaining any real understanding of the risk associated with their ongoing use is illogical, scientifically flawed, and deeply imprudent." AR31651.

Far from disputing Dr. Jackson's expertise, NNSA has conceded that Dr. Jackson is

[7] Moreover, NNSA's claim that meeting modern codes would be "prohibitively expensive," AR20632, is uncertain at best, since it is not based on any financial data or objective criteria, and is undermined by the simultaneous claim that "it may even be possible to upgrade these existing facilities up to modern seismic standards." Govt. Br. at 51.

correct that the agency must use updated seismic information from the USGS as well as non-linear modeling, a modern tool, to evaluate risks to aging facilities. AR31151. Yet despite conceding the need for these further studies, NNSA insists that it may nonetheless decide to rely on old, unsound buildings *before* studying whether it can do so safely. Dr. Jackson's dispute about the methodology and scientific validity of the agency's cart-before-the-horse approach is exactly the sort of controversy that requires an EIS. *Semonite*, 916 F.3d at 1083 (finding a project "highly controversial" based in part on expert commentary that "labeled the [agency's] analysis 'scientifically unsound, inappropriate, and completely contrary to accepted professional practice'"); *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agric.*, 681 F.2d 1172, 1182 (9th Cir. 1982) (finding project "highly controversial" based on "numerous responses from conservationists, biologists, and other knowledgeable individuals").[8]

Third, Plaintiffs explained that the ELP "affects public health or safety," 40 C.F.R. § 1508.27(b)(2), because NNSA recognized that ELP facilities "pose an exceptionally high risk to occupants or the public at large," AR20494. Apparently conceding that failing to meet modern safety standards may affect public health or safety, Defendants argue only that the impacts of a different action, the Upgrade in-Place alternative, were already analyzed. Govt. Br. at 25. However, that alternative would have upgraded aging facilities to modern safety standards, thus correcting deficiencies that "pose an exceptionally high risk to occupants or the public at large." AR20494. The ELP will not—and the resulting risks to public health or safety warrant an EIS, which would allow the public to provide input on risks they are currently being forced to accept.

[8] Defendants' suggestion that Dr. Jackson's criticisms are somehow insufficient to show a controversy, Govt. Br. at 25–26, is a Catch-22. Having refused to accept public input *for seven years* while making the decision to rely on old, unsound buildings, NNSA may not now insist that Plaintiffs had to do more than use *the only opportunity NNSA provided* to submit criticisms from an undisputed expert that go to the heart of the defects in the agency's decision-making.

Fourth, Plaintiffs explained that the ELP "may establish a precedent," 40 C.F.R. § 1508.27(b)(6), because it is "a pilot effort for aging facilities," AR20456. Defendants' response is that the ELP does not "allow the extension of the ELP to other facilities without further NEPA review." Govt. Br. at 26. However, courts have found a precedent regardless of whether future actions may require other NEPA review. *Au Sable*, 565 F. Supp. 2d at 832 ("Although each of the future [actions] would require individual EAs prior to approval, the [agency] has not assessed the extent to which approving the current proposal could affect those future decisions"). Consequently, for this reason as well, Defendants' failure to prepare any NEPA document in connection with the ELP violates the NEPA implementing regulations.

C. NNSA's Reliance on Categorical Exclusions is Unlawful.

As explained, Br. at 19–26, rather than involving the public in its decision-making by analyzing the ELP in an EIS—or even an EA—NNSA instead revealed to the public in its 2018 SA that the agency is relying on "primarily categorical exclusions," including 67 categorical exclusions ("CEs") in a single year. AR30991. Critically, CEs afford no opportunity for public involvement—revealing another way that NNSA has systematically excluded the public from its decision-making. As explained, Br. at 19–26, NNSA's reliance on CEs—instead of affording public involvement in an EIS or EA—contravenes NEPA's purposes and the plain terms of regulations implementing NEPA.

1. NNSA violated NEPA's purposes, and its own regulations, by failing to consider segmentation.

As explained, Br. at 20–22, following the NEPA principle that an action's significance "cannot be avoided . . . by breaking it down into small component parts," 40 C.F.R. § 1508.27(b)(7), DOE's own regulations mandate that "[t]o find that a proposal is categorically excluded, DOE *shall determine*" that "[t]he proposal *has not been segmented to meet the definition of a categorical exclusion*," 10 C.F.R. § 1021.410(b) (emphases added), and that "the

proposal is not connected to other actions with potentially significant impacts, [and] is not related to other actions with individually insignificant but cumulatively significant impacts." *Id.*

As explained, Br. at 20–21, the vast majority of NNSA's CEs for the ELP fail to make the determinations that DOE's regulations require. Because NNSA failed to comply with binding regulations, these CEs are unlawful. *See Meister*, 623 F.3d at 371 ("It is an elemental principle of administrative law that agencies are bound to follow their own regulations"); *cf. Sierra Club v. U.S. Forest Serv.*, 828 F.3d 402, 410 (6th Cir. 2016) (approving CEs that complied with agency regulations). NNSA's failure to follow its own regulations also led the agency to ignore the clearly interrelated nature of these ELP activities and to again exclude the public.

The government has no response. Indeed, the government's brief *wholly ignores* the pertinent regulation. It asserts that "NNSA need not expressly document the lack of segmentation for these projects in each individual CE determination," Govt. Br. at 30, yet makes no effort to address the plain mandate that "[t]o find that a proposal is categorically excluded, DOE *shall determine*" that "[t]he proposal *has not been segmented to meet the definition of a categorical exclusion*," 10 C.F.R. § 1021.410(b) (emphasis added).[9] Accordingly, summary judgment is proper for Plaintiffs on this issue. *S.P. v. Knox Cty. Bd. of Educ.*, 329 F. Supp. 3d 584, 594 (E.D. Tenn. 2018) (Reeves, J.) ("It is well understood that when a [party] files an opposition to a dispositive motion and addresses only certain arguments raised by the [other party], a court may treat those arguments that the [party] failed to address as conceded.").[10]

[9] Defendants' brief cites 10 C.F.R. § 1021.410(b) only once regarding a different proposition. *See* Govt. Br. at 35 (discussing extraordinary circumstances).

[10] Likewise, Plaintiffs explained that the handful of categorical exclusions that purport to make the required determination on segmentation by merely checking a box to that effect not only highlight NNSA's failure to consider this issue in most CEs, but also fail because they do not provide any reasoned basis for that ostensible determination. *See Cal. v. Norton*, 311 F.3d 1162,

Rather than respond to Plaintiffs' argument, Defendants instead wrongly argue that NNSA did not improperly segment the ELP through the use of CEs, because the 2011 SWEIS ostensibly analyzed the ELP. Govt. Br. at 29–31. However, this merely rehashes the erroneous arguments that Plaintiffs refuted above. *See supra* at 5–7. As Plaintiffs explained, Br. at 19, NNSA's reliance on CEs is a particularly egregious violation of NEPA precisely because the agency has never conducted a NEPA analysis *for the ELP*.[11]

Nor is there any merit to Defendants' suggestion that Plaintiffs have somehow "ignore[d] critical elements of an improper segmentation claim" by failing to identify actions that lack independent utility. Govt. Br. at 29–30. As Plaintiffs explained, *all* of the categorically excluded actions are inextricable components of the ELP, Br. at 22, which is "a comprehensive process," AR30057, to correct the agency's longstanding "deferral of needed maintenance," AR30105. These actions only make sense in the ELP's broader context; for example, upgrading a cooling system has no independent utility absent other upgrades needed to keep the building running.

Likewise, there is no merit to the argument that Plaintiffs seek to "impose a wholly infeasible standard upon NNSA by requiring analysis in a single NEPA document" for the ELP. Govt. Br. at 30. In fact, analyzing the entire Extended Life *Program's* impacts is precisely the proper role for an EIS. 40 C.F.R. § 1502.1 ("The primary purpose of an [EIS] is to serve as an

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1177 (9th Cir. 2002) ("the agency must at the very least explain why the action does not fall within one of the exceptions"). Again, the government fails to respond.

[11] The government also errs by asserting that NNSA's CEs were "effectively 'tiering'" to the 2011 SWEIS. Govt. Br. at 28-29. Agencies may tier a "subsequent [environmental impact] statement or environmental assessment" to a previous analysis "to focus on the actual issues ripe for decision at each level of environmental review." 40 C.F.R. § 1502.20. However, there is nothing in the regulations or any pertinent precedent that provides for a CE—which is used to *avoid* an EIS or EA, *id.* § 1508.4, to serve such a tiering function. The government certainly finds no support in its sole cited authority, *Ky. Coal Ass'n v. Tenn. Valley Auth.*, which approved tiering *of an EA*, 804 F.3d 799, 805 (6th Cir. 2015)—which NNSA has not prepared for the ELP.

action-forcing device to insure that the policies and goals defined in [NEPA] are infused into the ongoing *programs* and actions of the Federal Government." (emphasis added)). And preparing an EIS for the ELP is hardly "infeasible" since NNSA began developing the program in 2015 and will be conducting seismic studies in a "2020 timeframe." Govt. Br. at 45.

2. NNSA's reliance on inapplicable CEs was arbitrary and capricious.

As explained, Br. at 22–24, NNSA also acted in an arbitrary and capricious manner by portraying ELP activities as mere "installation or relocation of machinery or equipment" despite determining that "there are no [CEs] that allow relocation of existing processes or operations on the Y-12 plant site," AR30242, or as mere "routine maintenance" when the ELP is not "routine."

Evidently concerned that these CEs are unlawful, Defendants assert that these arguments are "outside the scope of the[] Complaint." Govt. Br. at 31–32. However, Plaintiffs' Complaint extensively criticized NNSA's CEs, Am. Compl., ECF No. 47, ¶¶ 135, 142–44, 155-56, 164–65, and specifically challenged NNSA "*improperly invoking Categorical Exclusions for specific aspects of the Extended Life Program*." *Id.* ¶ 164 (emphasis added). Defendants' suggestion that, having challenged *all* of the CEs for ELP activities, Plaintiffs may not offer illustrative *examples* of unlawful CEs is wholly without merit. Rather, using specific examples to prove allegations of the unlawful use of CEs, as alleged in the Complaint, is exactly how federal litigation is supposed to proceed. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992) ("[a]t the pleading stage, general factual allegations . . . may suffice," and at summary judgment plaintiffs "must set forth . . . specific facts"). Moreover, the requested relief of an EIS for the ELP would provide analysis and public participation that NNSA's CEs avoided. Am. Compl. at 62 ¶ 3.[12]

[12] There is also no merit to the government's suggestion that implementation of certain activities under CEs somehow renders Plaintiff's claims moot. Govt. Br. at 32 n.8. Plaintiffs' claim that an EIS is necessary for the ELP is certainly not moot, as the ELP remains ongoing.

The government also misleadingly asserts that NNSA's CEs "have little, if anything, to do with the seismic risks that are the focus of Plaintiffs' challenges," Govt. Br. at 32, ignoring Plaintiffs' core argument that the use of CEs *instead of an EIS for the ELP* unlawfully deprived the public of information about, and the ability to participate in, the agency's decision to continue to rely on old, structurally unsound buildings. Moreover, the fact that the CEs themselves do not address seismic concerns only underscores Plaintiffs' explanation that NNSA has committed to use these unsafe buildings—and focused on non-seismic upgrades—without any clear understanding of seismic risks or what seismic upgrades may be feasible. Br. at 39–40.

There is also no merit to the defense of NNSA's improper use of CEs for "installation or relocation of machinery or equipment." Govt. Br. at 33–34. Unable to deny that NNSA determined that "there are no [CEs] that allow relocation of existing procedures or operations on the Y-12 plant site," AR30242, Defendants vainly attempt to distinguish moving Lithium-processing equipment—which NNSA determined required an EA, AR30242—from relocating processes as part of the ELP. However, contrary to the assertion that "[t]he relocation of 'procedures or operations' is entirely distinct from the '[i]nstallation or relocation of machinery or equipment,'" Govt. Br. at 33, NNSA's own ELP documentation makes clear that any distinction is illusory. *See* AR30061 (providing that "[*p]rocess relocations move capabilities via installing equipment* in the enduring facilities" (emphasis added)); *see also* AR20443 (the ELP will "relocate processes, primarily from Building 9212 into Buildings 9204-2E and 9215"). Each CE that Plaintiffs cited is an example of the ELP's relocation of processes, such as adding a "chip melt furnace" in Building 9215 to replace the "process for chip processing in Building 9212." AR31450. Defendants' attempt to distinguish "relocation of procedures or operations" from moving equipment to relocate a procedure or operation is futile.

Finally, as explained, Br. at 23–24, NNSA acted unlawfully by portraying ELP activities as "routine maintenance" to invoke CEs, when the ELP is actually anything but "routine." After asserting that the ELP was sufficiently analyzed in the 2011 SWEIS—which Plaintiffs have refuted above—Defendants deeply mischaracterize the ELP by suggesting that its activities are run-of-the-mill, Govt. Br. at 34, despite the fact that they are unprecedented and, indeed, "must be performed during a time that production is *not using process equipment for routine operations*," AR30113 (emphasis added). As NNSA stated, the ELP requires "a new, more rigorous pilot outage program" that must be "planned, scheduled, and coordinated months in advance," and that requires separate staff and expanded funding. AR 30113–14. The notion that these activities are somehow "routine" defies the record and common sense, and the suggestion that these activities are equivalent to "the replacement of a dishwasher or stove," Govt. Br. at 34, is disingenuous. A better analogy is to a homeowner who failed to maintain a home for decades and must vacate the home for prolonged periods to finally conduct many needed renovations. Because ELP activities are the opposite of "routine," NNSA's attempt to rely on "routine maintenance" CEs is arbitrary and capricious. *See Wilderness Watch v. Mainella*, 375 F.3d 1085, 1095 (11th Cir. 2004) (rejecting a CE for "routine and continuing government business" because "[o]btaining a large van to accommodate fifteen tourists hardly appears to be a 'routine and continuing' form of administration and maintenance" of a wilderness area).

3. NSNA unlawfully failed to consider extraordinary circumstances.

As explained, Br. at 24–26, NNSA also violated DOE's regulatory mandate that it "shall determine" that "no extraordinary circumstances" foreclose use of a CE. 10 C.F.R. § 1021.410(b); *see also Sierra Club*, 828 F.3d at 410 (agencies must "consider whether 'extraordinary circumstances related to the proposed action' preclude use of the CE"). Where, as

here, "there is substantial evidence in the record that exceptions to the categorical exclusion may apply, the agency must at the very least explain why the action does not fall within one of the exceptions." *Norton*, 311 F.3d at 1177.[13]

As also explained, Br. at 24–25, NNSA flouted DOE's own regulations because the vast majority of its CEs for the ELP do not consider—or even *mention*—extraordinary circumstances, while a handful merely checked a box purporting to find that no extraordinary circumstances apply with no supporting analysis. Because the record reveals uncertainty about the impacts of individual CEs, as well as the entire ELP, extraordinary circumstances do, in fact, preclude the use of CEs under DOE's own regulations. 10 C.F.R. § 1021.410(b)(2) (extraordinary circumstances include "uncertain effects or effects involving unique or unknown risks").

Unable to deny that the vast majority of NNSA's CEs fail even to mention extraordinary circumstances, Defendants instead argue that NNSA's consideration of *other statutes* is tantamount to a valid extraordinary circumstance determination under NEPA. Govt. Br. at 35. However, courts have regularly rejected the notion that complying with other statutes is functionally equivalent to following NEPA's action-forcing procedures.[14] Moreover, in

[13] Defendants cite to *Mainella*, Gov't Br. at 34-35, which *rejected* invocation of a CE under circumstances comparable to those here and, in doing so, relied on *Norton*, the Ninth Circuit case Plaintiffs cited, Br. at 25–26, to explain that "the agency must at the very least explain why the action does not fall within one of the exceptions." *Norton*, 311 F.3d at 1177. *Mainella* therefore strongly supports Plaintiffs' position.

[14] *See, e.g., Fund for Animals v. Hall*, 448 F. Supp. 2d 127, 134–36 (D.C. Cir. 2006) (the Endangered Species Act's Section 7 consultation process is not a functional equivalent of NEPA because it does not force consideration of the same issues); *San Luis & Delta-Mendota Water Auth. V. Jewell*, 747 F.3d 581, 651 n.51 (9th Cir 2014) ("We have been skeptical of the 'functional equivalent' approach and have not used this language in our cases"); *Tex. Comm. on Nat. Resources v. Bergland*, 573 F.2d 201, 208 (5th Cir. 1978) (the functional equivalent "exceptions have generally been limited to environmental agencies themselves").

discussing other statutes, the CEs at issue do not address "extraordinary circumstances," such as scientific controversy over the project or uncertain effects. *See, e.g.*, AR31450–53 (failing to make such findings). Indeed, as explained, Br. at 10, 17, 25, because these CEs reflect components of the ELP, which is fraught with highly uncertain impacts and scientific controversy, NNSA could not validly determine that no extraordinary circumstances apply.

And in fact, while NNSA's CEs ignore the vast uncertainties for the entire ELP, various CEs do concede "uncertain" impacts from individual activities. *See* Br. at 25 (citing CEs that describe "uncertain" impacts regarding radioactive waste, hazardous waste, asbestos waste, PCBs, and radioactive hazardous air pollutants). As Plaintiffs explained, these admittedly "uncertain" impacts underscore NNSA's failure to consider extraordinary circumstances. The government argues these impacts are not uncertain because they are covered by permits—a rationale that is set forth nowhere in the record and conflicts with the Defendants' own concession that at least one permit modification may be required. Govt. Br. at 36. In any case, this is a classic *post hoc* rationalization of government counsel that cannot salvage NNSA's failure to consider extraordinary circumstances. *See Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 50 (1983) ("an agency's action must be upheld, if at all, on the basis articulated by the agency itself").[15]

[15] Nor is there any merit to the defense of NNSA's CE for installation of the unproven and hazardous technology of electrorefining in an ELP facility. With no attempt to refute Plaintiffs' explanation that electrorefining is unproven and hazardous, Br. at 23–25, the government asserts that despite being placed in an ELP facility, the electrorefining project is not part of the ELP, and that NNSA found electrorefining "safer" than current operations. Govt. Br. at 35. However, to the extent NNSA considers installing the new electrorefining technology in an ELP facility not to be part of the ELP—despite describing the ELP as including installation of "new technology", AR20454—arbitrarily carving this activity out from the ELP only underscores how the agency has unlawfully segmented the ELP. Likewise, the government's argument that NNSA found electrorefining "safer" does not even purport to address whether electrorefining may have uncertain impacts. Accordingly, there is no merit to the government's defense of this CE.

Finally, there is no merit to the defense of NNSA's few CEs that check a box to purportedly determine that no extraordinary circumstances exist. As explained, Br. at 25–26, these CEs lack any analysis to support their purported determination and thus fail to "explain why the action does not fall within one of the exceptions." *Norton*, 311 F.3d at 1177. Defendants claim that the checked boxes are preceded by "an extensive list of environmental issues," Govt. Br. at 37, but that list actually applies to the previous checked box, which requires the action to fit in a category for which a CE exists. *See, e.g.*, AR20665 (project must "fit within the classes of actions listed in 10 C.F.R. Part 1021, Subpart D"). The extraordinary circumstances inquiry is distinct. *See* 10 C.F.R. § 1021.400(d) (noting that a CE is inappropriate "[i]f a DOE proposal is not encompassed within . . . the appendices to this subpart D*, or if there are extraordinary circumstances*" (emphasis added)). Because these check-the-box CEs include no actual analysis of extraordinary circumstances, they violate NEPA. *See Humane Socy. v. Johanns*, 520 F. Supp. 2d 8, 34 (D.D.C. 2007) ("any notion that USDA may avoid NEPA review simply by *failing* even to consider whether a normally excluded action may have a significant environmental impact flies in the face of the CEQ regulations . . . as well as USDA's own NEPA regulations").

III. NNSA HAS UNLAWFULLY SEGMENTED THE OVERALL ANALYSIS OF THE MODERNIZATION OF Y-12.

As explained, Br. at 28–30, NNSA has unlawfully segmented its entire new Y-12 modernization plan to avoid NEPA review—and public input—in much the same way it segmented the ELP. Since NNSA abandoned its plan for a single-facility UPF, it has not prepared any NEPA document to consider the impacts of, and alternatives to, its new plan for modernizing Y-12 by building a multiple-facility UPF and continuing to rely on aging, structurally unsound buildings. Instead, the agency's scattershot approach to NEPA compliance lacks any apparent unifying principle—other than exclusion of public input. Thus, as Plaintiffs

explained, NNSA refused to prepare even an EA for the ELP, or for its new UPF plan, but decided that EAs are necessary for other projects for reasons that are equally applicable to the ELP and new UPF. Br. at 29 (citing decisions to prepare EAs because the "project scope was different than the original" proposal, and because "there are no [CEs] that allow relocation of existing processes or operations on the Y-12 plant site"). However, because all of the agency's new Y-12 modernization activities—including the multiple-facility UPF, the ELP, and the retention of a large security perimeter—are, in fact, integral parts of an "overarching modernization strategy," AR26289, these new decisions are clearly inter-related and must be examined in a single EIS that includes the public in the agency's decision-making.

The government contends that NNSA took "a comprehensive look at the impacts of these programs" in the 2011 SWEIS and the 2016 and 2018 SAs. Govt. Br. at 38–39. However, the 2011 SWEIS did not analyze the agency's *new* modernization plans, which, as Plaintiffs explained, Br. at 28, the agency developed *after 2011* through an *internal* consideration of alternatives and consultation with *hand-picked* individuals—without any public involvement. For their part, the 2016 and 2018 SAs did not satisfy NEPA's mandate to consider alternatives for the clearly inter-related aspects of NNSA's new Y-12 modernization plan. *See, e.g.*, AR31140 (2018 SA stating that it "does not include within it a range of reasonable alternatives"). Nor did either SA involve the public in actual decision-making; by the time NNSA took comments on the 2018 SA, the agency had already made its decisions. Thus, NNSA has never prepared any NEPA analysis that considers the impacts of, or alternatives to, its new Y-12 modernization plan.[16]

[16] The government claims confusion over the projects "as to which DOE has altogether ignored NEPA compliance," Govt. Br. at 39, while simultaneously defending DOE's refusal to prepare any NEPA documentation for a new Mercury Treatment Facility and a new landfill, *id.* at 38 n.11. The Court need not resolve the dispute over whether NEPA applies to these facilities. Plaintiffs have pointed to these only as examples of DOE's incoherent approach to NEPA, which

The government's defense of NNSA's scattershot approach to NEPA lacks merit. For example, the government asserts that NNSA rationally refused to prepare an EA for either the ELP or new UPF, while also deciding to prepare an EA for its Emergency Operations Center, ostensibly because the location for that project changed in comparison to what the 2011 SWEIS proposed. However, a change in location was not the agency's stated reason for preparing the EA, which was, in fact, that the "project scope was different than the original" proposal. AR19857. The original proposal included a fire station, AR19750, but NNSA built a separate fire station using a categorical exclusion. AR19677. Thus, because the Emergency Operations Center "project scope was different," NNSA decided an EA was necessary. AR19857. Yet, NNSA has refused to prepare any new analysis for its new Y-12 modernization plan, despite radically changing the scope of what the 2011 SWEIS proposed. *See, e.g.*, AR26060 (the ELP's "scope as described has morphed"). Moreover, even if a change in an activity's location *were* necessary to trigger a new analysis, that condition is also met, since NNSA's new plan entails moving operations to *new locations* in the UPF and ELP facilities. *See* AR30061.

As explained, Br. at 29, all of NNSA's new Y-12 modernization activities are integral parts of its new "overarching modernization strategy," AR26289. Thus, each component lacks independent utility because "it would be irrational, or at least unwise, to undertake" any phase of the new plan "if subsequent phases were not also undertaken." *Hirt v. Richardson*, 127 F. Supp. 2d 833, 842 (W.D. Mich. 1999). Because NNSA has refused to analyze these interrelated activities together in a coherent manner that considers their impacts, weighs alternatives, and

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other examples amply demonstrate, as discussed. Still, as a further example of DOE's incoherence, while the government insists that this Mercury Treatment Facility is exempt from NEPA, it prepared an EIS for a mercury storage facility. AR28572.

involves the public, it has unlawfully segmented them to avoid the required review. *Id.* (agencies must discuss connected and similar actions "in the same impact statement").

IV. NNSA IS VIOLATING NEPA BY FAILING TO PREPARE A NEW OR SUPPLEMENTAL EIS FOR THE MODERNIZATION OF Y-12.

A. New Information Leading NNSA to Consider Alternatives for Pending Decisions Warrants Preparation of a New or Supplemental EIS.

As explained, Br. at 30–36, after issuing the 2011 SWEIS, NNSA received new information that warrants the preparation of a new or supplemental EIS on Y-12, including updated seismic hazard data from the USGS in 2014 and subsequent years, as well as multiple reports from the Defense Nuclear Facilities Safety Board ("DNFSB") and the DOE's Inspector General ("IG"). Although this information is leading NNSA to conduct studies and consider alternatives for important, still-pending decisions, the agency is refusing to utilize the process that NEPA requires. *See* 40 C.F.R. § 1502.14 (analyzing alternatives is "the heart" of the NEPA process); *see also Marsh*, 490 U.S. at 374 (whether an SEIS is required "turns on the value of the new information to the still pending decisionmaking process").

The government does not—and cannot—dispute that NNSA's response to this new information is to continue to conduct studies of seismic hazards and to consider alternatives for what upgrades it may make to its aging facilities and how it may clean up excess facilities that continue to pose "ever-increasing levels of risk" to the public. AR19107. Nor do Defendants dispute that NNSA is refusing to do so in any NEPA process.

Instead, the government contends that NNSA did not need to prepare a new or supplemental EIS because the new information did not change the agency's "bounding analysis." Govt. Br. at 39–45. That "bounding analysis" purported to find no significant difference between the agency's previous plan to upgrade aging facilities to meet modern seismic standards and its

new decision to rely on those buildings without such upgrades, because in either event an earthquake would not be as catastrophic as a large, uncontrolled fire or an airplane crash. *Id.* at 41. However, not only is this "bounding analysis" inappropriate because it violates NEPA's implementing regulations and DOE's own policies, Br. at 32–36, but it also wrongfully obscures the importance of the new information that NNSA received and still has yet to consider fully.

As to seismic information, contrary to the assertion that NNSA already "understands the seismic risks associated with the continued operation of existing facilities," Govt. Br. at 43, in fact NNSA found that new seismic information necessitates "a site-specific updated seismic hazard study." AR31151; *see also* AR31096 (the "safety basis" for old buildings must be updated in light of this study). Defendants pre-judge the outcome of this new study, contending that even if it reveals greater earthquake risks, the consequences from earthquakes would purportedly still be less severe than an airplane crash or large fire, in part because NNSA *might* implement some seismic upgrades. Govt. Br. at 42–43. This "bounding analysis" wrongly downplays the importance of new seismic information and NNSA's concededly necessary new seismic studies. Those studies may reveal that serious consequences are *more likely* than NNSA previously believed. NNSA is obligated to analyze, and the public has a right to know, *how likely* it is that an earthquake may cause serious environmental and public health consequences. *See New York*, 681 F.3d at 482 (NEPA analysis "must examine both *the probability of a given harm occurring and* the consequences of that harm if it does occur" (emphasis added)). NEPA also affords the affected public a right to a say in whether NNSA should "accept" risks *to the public*. NNSA's insistence that it needs to study seismic risks and update its safety strategy for old buildings, but that it will engage in no further NEPA process, exemplifies NNSA's wrongful refusal to use the required NEPA process both to inform and involve the public.

Likewise, new information from the DOE IG and from the DNFSB is concededly leading NNSA to consider alternatives for further action, but NNSA refuses to involve the public in a new or supplemental EIS. *See* Govt. Br. at 43 ("DOE 'is actively evaluating alternatives for the disposition of such excess facilities"). *Id.* at 44 (NNSA will "continue to work with DNFSB" to meet regulatory requirements).[17] NNSA's plan to conduct additional studies, consider alternatives, and update its strategy for addressing seismic risks, disposing of high-risk excess facilities, and maintaining aging buildings effectively concedes further NEPA analysis is needed. *See Northwood*, 638 F. App'x at 461 (where analysis "indicates that further study is required, the agency must prepare an EIS"); *see also Marsh*, 490 U.S, at 374 ("the decision whether to prepare a supplemental EIS is similar to the decision whether to prepare an EIS in the first instance").

B. NNSA's "Bounding Analysis" is Illogical and Unlawful.

As explained, Br. at 32–36, NNSA's "bounding analysis" violates NEPA's implementing regulations and DOE's own NEPA policies. When Plaintiffs raised these issues in comments on the 2018 SA, NNSA's response was incoherent, simultaneously "disagree[ing] that the [2018] SA relies on a 'bounding analysis,'" AR31146, while also *using* that same analysis to claim that an earthquake's damage "would not exceed" that from an airplane crash or large fire. This simultaneous denial of a "bounding analysis" while doubling down on that same analysis "is the essence of arbitrary and capricious action." *New England Coal. for Nuclear Pollution v. Nuclear Regulatory Comm'n*, 727 F.2d 1127, 1130 (D.C. Cir. 1984) (Scalia, J.). NNSA's failure to

[17] The government attempts to downplay the DNFSB's criticisms, suggesting that the DNFSB "has expressly supported" the ELP. Govt. Br. at 44–45, 50–53. In fact, while the DNFSB found that NNSA's new analysis of seismic issues is "a significant improvement" from the previous cavalier treatment of seismic risks, the DNFSB has actually reserved judgment on NNSA's plans. *See* AR26303 (DNFSB "will evaluate the long-term acceptability of [NNSA's] strategy once [the agency] has completed the analyses and identified intended structural upgrades").

respond coherently to public comments on this issue is far more than a "quibble over language," Govt. Br. at 48 n. 14, and shows why a further NEPA process—with a greater opportunity for public input and a requirement for a reasoned response—is clearly needed.

NNSA still has no supportable response to Plaintiffs' explanation that its bounding analysis violates NEPA's implementing regulations. As Plaintiffs explained, AR 31275, Br. at 34–35, NEPA's implementing regulations require that incomplete information that is "essential to a reasoned choice among alternatives"—such as incomplete seismic information that is essential to a reasoned choice among alternatives for seismic upgrades of existing facilities—"shall" be included in NEPA analysis. 40 C.F.R. § 1502.22. NNSA has failed to do so, and by refusing to prepare further NEPA analysis—even though NNSA *is gathering* the information that Plaintiffs explained is essential—the agency violated this regulation. Defendants' brief fails even to cite 40 C.F.R. § 1502.22 or claim that the agency complied with this regulation.

Instead, Defendants merely assert that NNSA "quantified the risks" of using aging facilities in 2011. Govt. Br. at 48. However, as discussed *supra*, any analysis in 2011 was premised on old facilities complying with modern codes to the extent possible—a plan NNSA has abandoned. Moreover, contrary to the assertion that NNSA already "quantified the risks," NNSA has conceded that "uncertainties in the seismic risks" necessitate "continuing study *to further quantify these risks.*" AR31147 (emphasis added). NNSA's use of a bounding analysis to refuse to gather and analyze this incomplete information in an EIS flouts the explicit requirement that the agency "shall include the information in the [EIS]." 40 C.F.R. § 1502.22; *see also Nat'l Parks Conserv. Ass'n v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001) (*abrogated on other grounds by Monsanto v. Geertson Seed Farms*, 561 U.S. 139 (2010) ("propos[ing] to increase the risk of harm to the environment and then perform its studies . . . has the process exactly backwards").

Likewise, NNSA's use of a bounding analysis to avoid further NEPA review violates DOE's own policies. As Plaintiffs explained, DOE's *Recommendations for the Supplement Analysis Process* state that when "a proposed action differs substantially from all alternatives analyzed in an existing EIS, even if the impacts are likely to be smaller than those estimated in the existing EIS," a new or supplemental EIS would be necessary. AR31713. Defendants assert that this guidance merely says that an SEIS "may be required," Govt. Br. at 47, but the guidance states that "a supplemental or new EIS *without the need for an SA* may be required," AR31713—meaning the agency should prepare a new or supplemental EIS *without first preparing an SA*. Here, this guidance confirms the need for a new or supplemental EIS because NNSA's new plan differs significantly from all previous alternatives by refusing to upgrade old buildings to meet modern safety standards because NNSA unilaterally deemed those upgrades too costly.

Moreover, as explained, Br. at 34, DOE's guidance on "Using Bounding Analyses in DOE NEPA Documents" also shows that NNSA's bounding analysis is inappropriate: "It is *never appropriate* to 'bound' the environmental impacts of potential future actions . . . and argue later that additional NEPA analysis is unnecessary because the impacts have been bounded by the original analysis." AR31274 (emphasis added). Yet NNSA used its bounding analysis to refuse to prepare NEPA analysis to consider alternatives for the agency's new plan, wrongfully causing "the differences among alternatives [to be] obscured." AR31735. Defendants miss the point by contending that the differences among alternatives are not obscured because it is clear that the original UPF would have complied with modern codes while NNSA's new plan will not. Govt. Br. at 47. Because NNSA used a bounding analysis to refuse to prepare NEPA analysis that considers alternatives for the agency's new decision*, it has never considered alternatives for this new decision,* such as which buildings to upgrade or which upgrades to make. *See also supra*

at 4 (discussing other alternatives). Thus, the important differences among alternatives have been entirely obscured, which "is never appropriate." AR31274.[18]

V. NNSA'S BACKWARD-LOOKING SUPPLEMENT ANALYSES DO NOT CURE ITS NEPA VIOLATIONS.

As Plaintiffs explained, Br. at 36–40, NNSA violated NEPA by committing to a new plan for modernizing Y-12 without taking a "hard look" before making that decision. Because NNSA's backward-looking SAs do not fulfill NEPA's requirement that agencies take "hard look . . . *before taking a major action*," *Balt Gas & Elec. Co.*, 462 U.S. at 97 (emphasis added), and because NNSA's particular SAs instead commit the agency to undertake actions first and analyze them later, these SAs only deepen the agency's violations of NEPA's action-forcing procedures.

The ELP provides a clear example of the unlawful nature of NNSA's backward-looking SAs. The record indisputably establishes that NNSA created the Extended Life Program *before* issuing the 2016 SA. AR30055 (describing workshops on the ELP in 2015); AR20467 (ELP "Team Charter" from September 2015). The agency issued its 2016 SA only *after* designing the ELP to meet the agency's chosen budget for Y-12 modernization and instead of involving the public in the ELP's design in any manner. *See* Br. at 8–11. Moreover, flouting NEPA's mandate that agencies not merely "rationalize or justify decisions already made," 40 C.F.R. § 1502.5,

[18] Defendants' reliance, Govt. Br. at 46, on *Tri-Valley Cares v. U.S. Dep't of Energy*, No. C 08-01372 SBA, 2009 WL 347744 (N.D. Cal. Feb 9, 2009), to justify NNSA's bounding analysis is misplaced, because that case approved use of a bounding analysis in an EA that considered impacts of, and alternatives to, a particular action. *Id.* at *2–3 ("Pursuant to the NEPA, the DOE prepared an initial EA" and only authorized the project "[a]fter considering alternatives"). That case does not allow a "bounding analysis" to *avoid preparing NEPA analysis*, as NNSA did here, and as DOE's own guidance states "is never appropriate." AR31274. Even where an agency uses "conservative bounding assumptions," it must provide a "thorough and comprehensive" environmental analysis that includes "the opportunity for concerned parties to raise site-specific" concerns. *See New York*, 681 F.3d at 480–81; *see also id.* at 478 (noting the "simple[] grounds" that "a major federal action . . . requires an EIS or, alternatively, an EA").

NNSA's own ELP Implementation Plan states that "analyses that substantiate the risk reductions [from ELP activities] . . . *are intended to justify decisions to continue to operate these capabilities for the extended life*." AR26062 (emphasis added). Because the 2016 SA merely looked back at an already-designed new program, and failed to consider any alternatives, it did not fulfill NEPA's core mandate to take a hard look *before* making a decision.

Likewise, the 2018 SA merely looks back at decisions NNSA made several years prior to again refuse to undertake any further NEPA analysis—even though it concedes that the agency is still gathering information and considering alternatives. As explained, Br. at 37–40, NNSA's responses to comments on the 2018 SA highlight its arbitrary and capricious nature. For example, as to NNSA's new plan to retain a larger security perimeter, Plaintiffs explained that although NNSA conceded that this will result in "increased cost and losses in efficiency" for cleanup efforts, the 2018 SA irrationally found that "losses in efficiency" would not result in delays. *Id.* at 37. The government's brief merely reiterates this conclusory assertion and claims that "Plaintiffs have provided no basis for second-guessing this determination," Govt. Br. at 49, when the basis for doubting NNSA's conclusory assertion that no delays would occur *comes from NNSA's own finding* of "losses in efficiency." Logically, "increased cost and losses in efficiency" will cause delays, and the insistence to the contrary is arbitrary and capricious.

Most glaringly, Defendants have no convincing response to Plaintiffs' explanation that NNSA has chosen to rely on old, structurally unsound buildings without any clear understanding of how risky that decision is. Br. at 37–40. As Plaintiffs explained, NNSA's old buildings may not withstand earthquakes.[19] Br. at 10 (citing AR19127 (describing "potential for structural

[19] As explained, Br. at 15, eastern Tennessee has recently experienced numerous earthquakes. Plaintiffs' Exhibit A provides a map and list of earthquakes from the USGS website, of which the Court may take judicial notice. *See Demis v. Sniezek*, 558 F.3d 508, 513 n. 2 (6th Cir. 2009).

collapse"). Because NNSA has neither completed studies of seismic hazards, nor used modern tools to assess the buildings' vulnerabilities, it does not understand the degree of risk these buildings face. The government's denial of this fact on the basis of NNSA's bounding analysis, Govt. Br. at 50, is incorrect and illogical, because the bounding analysis only asserts that the *consequences* of an earthquake would not be as severe as those from an airplane crash or large fire. The bounding analysis does not purport to determine how likely it is that an earthquake may cause NNSA's aging buildings to collapse. Thus, as Plaintiffs explained based on an expert seismologist's input, NNSA's approach of "[c]omitting to the use of these vulnerable facilities before obtaining any real understanding of the risk associated with their ongoing use is illogical, scientifically flawed, and deeply imprudent." AR31280. Likewise, committing to this course of action—and requiring the public to "accept" risks when NNSA itself does not understand those risks and has not involved the public in this decision—is the opposite of what NEPA requires.[20]

CONCLUSION

The Court should hold that NNSA has violated NEPA, vacate NNSA's 2016 Amended Record of Decision, 5 U.S.C. § 706, and remand for analysis consistent with NEPA.

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[20] Defendants suggest this Court should defer to NNSA's refusal to prepare an SEIS. Govt. Br. at 50. However, "[a]n agency is not entitled to deference simply because it is an agency." *Meister*, 623 F.3d at 367. "[F]or courts to defer to them, agencies must do more than announce the fact of their comparative advantage; they must actually use it. And that means, among many other things, that the agency must apply—rather than disregard—the relevant statutory and regulatory criteria." *Id.* Here, NNSA has not followed NEPA's procedures, and its refusal to do so is not premised on an exercise of agency expertise. Instead NNSA conceded that "uncertainties in the seismic risks" necessitate "*continuing study to further quantify these risks.*" AR31147 (emphasis added), that it must use modern modeling tools to assess seismic risks, that it is still considering seismic upgrades, AR31151, and that it still considering alternatives for cleaning up high-risk excess facilities, AR31083. Because NNSA has not addressed these concededly still-pending questions, its refusal to prepare further NEPA documentation is not based on any exercise of expertise but, rather, on an ongoing determination to make important decisions outside of the NEPA framework. This conduct does not provide any valid basis for deference from this Court.

Respectfully submitted,

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