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No. 18-1684

IN THE UNITED STATES COURT OF APPEALS FOR THE FOURTH CIRCUIT

STATE OF SOUTH CAROLINA,

Plaintiff-Appellee,

ν.

UNITED STATES OF AMERICA, et al.,

 $Defendants\hbox{-}Appellants.$

On Appeal from the United States District Court for the District of South Carolina

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Statement of Jurisdiction

The district court had jurisdiction under 28 U.S.C.A. § 1331. The district court granted South Carolina's request for a preliminary injunction on June 7, 2018, which the federal government timely appealed on June 15, 2018. Preliminary Injunction Order (PI Order) [JA 1012]; Notice of Appeal [JA 1048]; Fed. R. App. 4(a)(1)(B). This Court has jurisdiction under 28 U.S.C.A. § 1292(a)(1).

Statement of the Issue

Did the district court properly exercise its discretion by entering a preliminary injunction to maintain the status quo during the pendency of this lawsuit and preserve that court's ability to render meaningful judgment on the Department of Energy's final agency decision to terminate construction of the mixed-oxide fuel fabrication facility in South Carolina?

Statement of the Case

For over 20 years, the United States Department of Energy (Department or DOE) has recommended that the Nation dispose of its surplus weapons-grade plutonium by converting it into mixed-oxide (MOX) fuel for use in commercial nuclear reactors. Recognizing the importance of advancing this "preferred alternative," Congress statutorily directed DOE to construct the MOX fuel fabrication facility (MOX Facility or Project) at the Savannah River Site (SRS) in South Carolina. Following congressional appropriation of funds for the Project in

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Fiscal Year 2007, DOE began constructing the MOX Facility. Each year since, Congress has continued to fund construction of the Project and has specified that these funds must be used for construction and support activities for the Project.

Nevertheless, in recent years, DOE has continuously sought to terminate the MOX Project and advocated for its proposed alternative, a process called "downblending" or "Dilute and Dispose." Even though there are significant obstacles to implementing and executing the "Dilute and Dispose" process and Congress has made available only a limited amount of appropriated funds to study the feasibility of this process, DOE unilaterally decided to terminate and cease construction of the MOX Facility and pursue the "Dilute and Dispose" approach. It did so, however, without conducting any analyses, as mandated by the National Environmental Policy Act, 42 U.S.C.A. §§ 4321-4370h (NEPA), of the indefinite storage of defense plutonium at SRS or of the new "Dilute and Dispose" approach for the Nation's plutonium disposition program. Further, DOE improperly and without justification attempted to avoid congressional mandates by committing to remove the stored plutonium at SRS and certifying that an alternative and less expensive option for carrying out the plutonium disposition program exists. However, these commitments and certifications are without any support in law or in fact.

I. Statutory and Factual Background.

Following the end of the Cold War, significant quantities of nuclear weapons, including large amounts of weapons-grade plutonium, became surplus to the defense needs of the United States and Russia. In an effort to consolidate and reduce surplus weapons-grade plutonium, the United States and Russia jointly developed a plan for the nonproliferation of weapons of mass destruction worldwide. After extensive study, including an environmental impact statement (EIS) conducted pursuant to NEPA, in 1996 DOE concluded that the "preferred alternative" for plutonium disposition in the United States consisted of a dual-path strategy that proposed (1) immobilization of a portion of the surplus plutonium in glass and (2) irradiation of the remaining plutonium in MOX fuel. Report to Congress: Disposition of Surplus Defense Plutonium at Savannah River Site 2-1 (Feb. 15, 2002) (Report to Congress) [JA 78]. The following year, DOE announced its intention to pursue this dual-path strategy, including the construction and operation of a mixed-oxide fuel fabrication facility.

In 1999, DOE again concluded that the "Preferred Alternative" was the hybrid approach to immobilize surplus weapons-grade plutonium in glass and to irradiate the remaining plutonium in MOX fuel in existing domestic, commercial reactors. Excerpt from *Surplus Plutonium Disposition (SPD) Final EIS, Vol. I – Part A* (Nov. 1999) [JA 231]. DOE selected SRS in South Carolina as the preferred

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operate the MOX Facility. *Id.* Then, in 2002, DOE decided not to proceed with the immobilization portion of the hybrid strategy, leaving the construction and operation of the MOX Facility as the only strategy to dispose of surplus plutonium in the United States. *See Report to Congress* 2-2 [JA 79].

In 2003, Congress enacted statutory requirements for the MOX Project. Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, § 3182, *subsequently codified* as 50 U.S.C.A. § 2566 (Section 2566). Specifically, Section 2566 provides the congressional mandate for the "construction and operation of [the MOX Facility]" and requires DOE to achieve the "MOX production objective" by producing MOX fuel from defense plutonium and defense plutonium materials at an average rate of no less than one metric ton of mixed-oxide fuel per year. 50 U.S.C.A. § 2566(a), (h). Section 2566 also imposed specific deadlines for the removal of defense plutonium from South Carolina as well as the provision of economic and impact assistance payments to the State should the MOX production objective not be achieved. 50 U.S.C.A. § 2566(c), (d).

Beginning shortly after the enactment of § 2566 and continuing through 2012, the Department shipped significant amounts of plutonium and plutonium materials to South Carolina from multiple other facilities for conversion into MOX

fuel. In March 2005, after its own evaluation and analysis, the U.S. Nuclear Regulatory Commission (NRC) issued a license for construction to the MOX Facility contractor finding, among other things, that radiation exposure to the public is greater in a "no action" alternative than with the Project and noting that "continued storage would result in higher annual impacts" of public radiation exposure than implementation of the Project. Excerpt from *Environmental Impact Statement on the Construction and Operation of a Proposed Mixed Oxide Fuel Fabrication Facility at Savannah River Site, South Carolina* 4-96 (Jan. 2005) [JA 311]. Construction began on the MOX Facility on or about August 1, 2007.

However, in early 2013, DOE began indicating a shift in its plutonium disposition strategy. In the President's Budget Proposal for Fiscal Year 2014, the Department sought significantly less funding for construction of the MOX Facility, stating that it was "slow[ing] down the MOX project and other activities associated with the current plutonium disposition strategy" to assess alternative strategies. FY 2014 U.S. Dep't of Energy Budget Justification, Vol. 1, DN-119 (April 2013). Then, in early 2014, the Department sought to abandon construction of the MOX Facility altogether by recommending that the MOX Facility be funded only at a level sufficient to place the MOX project into "cold standby," which was equivalent to indefinitely suspending the Project. Notwithstanding the absence of

¹ https://www.energy.gov/cfo/downloads/fy-2014-budget-justification.

any change in funding or congressional authorization, the Department announced its intention to place the MOX Facility into immediate cold standby even before the end of Fiscal Year 2014 without any plan for disposition or removal of the plutonium in South Carolina. Consequently, South Carolina filed a lawsuit against DOE on March 18, 2014, but a stipulation of dismissal was filed when the Department agreed to continue construction of the MOX Facility in compliance with law. *South Carolina v. U.S. Dep't of Energy*, 1:14-cv-00975 (D.S.C.).

Since 2014, DOE's budget requests have all requested funding to terminate construction of the MOX Facility. However, Congress has specifically required DOE to utilize any MOX-specific appropriations for the construction of the MOX Facility, denying and rebuffing the attempts by DOE to utilize appropriations to terminate the Project. Appellants' Br. 3. Nevertheless, DOE has continuously sought termination of the MOX Project and has advocated for its proposed "Dilute and Dispose" alternative, under which DOE would prepare plutonium at SRS for disposal at the Waste Isolation Pilot Plant (WIPP) in New Mexico.²

Despite DOE's new preferred alternative, Congress has continued requiring DOE to pursue construction of the MOX Facility. *See* Consolidated Appropriations

² "Dilute and Dispose" has only been given a limited approval and limited budget to process plutonium that is **not** part of the 34 metric tons of defense plutonium to be disposed of through the MOX Project. In other words, there currently exists no legal authority or authorization for "Dilute and Dispose" to be utilized for the MOXable plutonium.

Act, 2018 (CAA FY18), Pub. L. 115-141, § 309(a) (appropriating \$335.5 million dollars in fiscal year 2018 for construction of the MOX Project, and specifying that these funds "may be made available only for construction and project support activities for such Project."). Congress specified that DOE can avoid this mandate only if the Secretary of Energy submits to the congressional defense committees a "commitment" to remove MOXable plutonium from South Carolina and a certification regarding certain points for any alternative option. National Defense Authorization Act for Fiscal Year 2018 (NDAA FY18), Pub. L. No. 115-91, § 3121(b)(1); see also CAA FY18, § 309(b), (c).

On or about May 10, 2018, the Secretary of Energy notified Congress of DOE's decision to terminate and cease construction of the MOX Facility and pursue its "Dilute and Dispose approach to plutonium disposition." May 10, 2018 Secretary Perry Letter [JA 54-55]. On May 14, 2018, DOE also issued a Partial Stop Work Order that halted any new contracts or new hires at SRS for the MOX Project. May 14, 2018 Letter to CB&I AREVA MOX Services, LLC RE: Contract DE-AC02-99CH10888 (Mixed Oxide Fuel Fabrication Facility) [JA 397]. DOE intended to issue a full stop work order to begin the wind-down of the MOX

³ Congress has effectively rebuffed the May 10 termination decision as the National Defense Authorization Act for Fiscal Year 2019 approved by Congress on August 1, 2018, authorizes continued construction of the MOX Facility. John S. McCain National Defense Authorization Act for Fiscal Year 2019, H.R. 5515, 115th Cong. (2018).

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Project (including contract termination for the contractor on the whole project) and termination of employees on June 11, 2018. Raines Decl. ¶ 10 [JA 577].

II. Procedural History.

On May 25, 2018, the State filed its Complaint in the district court seeking declaratory and injunctive relief from DOE's final agency action to terminate the MOX Project. The State also filed a Motion for a Preliminary Injunction to maintain the status quo and enjoin DOE from terminating the Project during the pendency of this lawsuit.

After briefing and a hearing, the district court on June 7, 2018, granted the State's request for a preliminary injunction and enjoined DOE from terminating construction of the MOX Project and from issuing a full stop work order for the Project during pendency of the lawsuit. PI Order 35-36 [JA 1046-47]. Among other things, the district court concluded the State is likely to succeed on the merits of its claim that the May 10 decision to terminate the MOX Facility violated NEPA and is arbitrary and capricious because it has no basis in law or fact. *Id.* at 19-28 [JA 1030-39].

The district court also determined that DOE's actions will make South Carolina the permanent repository for weapons-grade defense plutonium, even though 50 U.S.C.A. § 2566—which specifically requires NEPA compliance—was enacted to prevent that precise result. *Id.* at 30-31 [JA 1041-42]. The district court

further determined that DOE's actions will result in serious consequences and irreparable harm to the environment and safety of the State, its citizens, and the Nation's public in general. *Id.* at 10, 29-30 [JA 1021, 1040-41]. Further, the district court agreed that, while the alleged financial impact resulting from a preliminary injunction may weigh in favor of DOE, the balance of equities still heavily favors the State as it seeks to simply preserve the status quo. *Id.* at 31 [JA 1042]. Finally, the court concluded the public interest is served by ensuring the MOX Project is not terminated before the legality of DOE's decision can be fully vetted by the court. *Id.* at 34-35 [JA 1045-46]. This interlocutory appeal by the federal government followed.

Summary of Argument

1. The State has standing to challenge DOE's final agency action to terminate the MOX Facility without first complying with NEPA or § 3121 of NDAA FY18. This Court previously held that the State has standing to enforce its procedural rights under NEPA with respect to the same facility located in South Carolina—SRS. Regardless, DOE's arbitrary and capricious decision to terminate the MOX Facility would leave the State as the indefinite repository of defense plutonium and therefore threatens the protected interests of South Carolina under NEPA and § 3121 of NDAA FY18. Accordingly, the State easily satisfies the

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constitutional and prudential standing requirements for its challenge of DOE's final agency action.

2. The federal government cannot demonstrate that the district court abused its discretion by issuing the preliminary injunction to maintain the status quo. The federal government does not contend—nor could it—that the district court applied an incorrect standard or based its decision on an erroneous finding of material fact. The district court also properly applied the preliminary injunction standard and found that all the factors for a preliminary injunction were present based on the evidence presented.

The district court correctly ruled that the State is likely to succeed on the merits of its claim that DOE's decision to terminate the MOX Facility violated NEPA and § 3121 of NDAA FY18. DOE's decision to terminate the MOX Project is a reversal of over 20 years of environmental analyses and decisions. It also undisputedly leaves the defense plutonium currently stored at SRS with no legally available or authorized disposition pathway and no removal options. As a result, the State by default becomes the *de facto* indefinite, permanent repository of surplus weapons-grade plutonium. DOE was therefore required by NEPA to prepare an EIS level analysis before taking final agency action on May 10. Because it is undisputed that DOE did not do so, the district court correctly found that the State would likely succeed on the merits of its NEPA challenge. Likewise,

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the district court correctly rejected the federal government's argument that DOE's so-called certifications and commitments pursuant to § 3121 of NDAA FY18 need not be supported by facts and properly ruled that DOE's action was arbitrary and capricious because its decision to terminate the MOX Facility had no rational basis.

The district court also correctly found that the State would be irreparably harmed without the preliminary injunction because it would be robbed of the opportunity to obtain meaningful judicial review of DOE's decision to terminate the MOX Facility and leave South Carolina as the permanent repository of surplus weapons-grade plutonium in violation of NEPA and § 3121 of NDAA FY18.

The federal government's contention that DOE and the public will be harmed by the status quo being maintained is erroneous. The federal government's claim of an adverse financial impact is specious and, in any event, vastly outweighed by the importance of ensuring that DOE complies with the law prior to taking irreversible steps to terminate the MOX Facility. The public interest is also served by the preliminary injunction because DOE's sudden termination of the MOX Facility overturns decades of the United States' plutonium disposition policy and would violate one of the Nation's international nonproliferation agreements.

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Standard of Review

"The decision to issue or deny a preliminary injunction is committed to the sound discretion of the trial court." *Quince Orchard Valley Citizens Ass'n, Inc. v. Hodel,* 872 F.2d 75, 78 (4th Cir. 1989). "That decision will not be disturbed on appeal unless the record shows an abuse of that discretion, regardless of whether [this Court] would, in the first instance, have decided the matter differently." *Id.* "A district court abuses its discretion by applying an incorrect preliminary injunction standard, by resting its decision on a clearly erroneous finding of a material fact, or by misapprehending the law with respect to underlying issues in litigation." *Id.*

Argument

I. South Carolina has standing.

The district court correctly determined that the State has standing to challenge DOE's final agency action to terminate the MOX Facility without first complying with the numerous predicate legal requirements imposed by Congress. PI Order 8-11 [JA 1019-22]; see 5 U.S.C.A. § 702 ("A person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof."). The federal government's argument that the State does not have standing is without merit.

First, the federal government's argument is directly contradicted by *Hodges* v. Abraham, 300 F.3d 432 (4th Cir. 2002). There, the Governor of South Carolina made a NEPA challenge to DOE's storage of defense plutonium at SRS. *Id.* at 442-43. Like here, DOE argued the Governor lacked standing to pursue his NEPA challenge. *Id.* This Court flatly rejected that argument and specifically held:

[T]he Governor, in his official capacity, is essentially a neighboring landowner, whose property is at risk of environmental damage from the DOE's activities at SRS. Governor Hodges therefore has a concrete interest that NEPA was designed to protect; as such, . . . he possesses the requisite standing to enforce his procedural rights under NEPA.

Id. at 445. Thus, this Court has already held that the State (or its official representative) has standing under NEPA to challenge DOE action at SRS. See United States v. Rivers, 595 F.3d 558, 564 n.3 (4th Cir. 2010) ("A panel of this [C]ourt cannot overrule, explicitly or implicitly, the precedent set by a prior panel of this [C]ourt. Only the Supreme Court or this [C]ourt sitting en banc can do that."); McMellon v. United States, 387 F.3d 329, 332 (4th Cir. 2004) ("A number of cases from this court have stated the basic principle that one panel cannot overrule a decision issued by another panel.").

Here, the State is challenging DOE's decision to terminate the MOX Facility and leave the State as the indefinite repository of defense plutonium without first conducting the required NEPA analyses. Based on the pleadings and evidence presented to the district court, DOE's action results in increased radiation exposure to the public, increased risks of nuclear-related accidents, and an increased threat of action by rogue states or terrorists seeking to acquire weapons-grade plutonium. See, e.g., PI Order 20-21 [JA 1031-32]; Excerpt from Environmental Impact Statement on the Construction and Operation of a Proposed Mixed Oxide Fuel Fabrication Facility at Savannah River Site, South Carolina 4-96 (Jan. 2005) [JA 311]. The district court therefore correctly ruled that the State has standing "to challenge the [Department's] failure to comply with NEPA because the State owns

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extensive property adjoining, and one road traversing, the impacted area." PI Order 10 [JA 1021]; *see Hodges*, 300 F.3d at 444-45.

Other than mere *ipse dixit*, the federal government does not explain why this Court's 2002 holding regarding Governor Hodges' standing does not equally apply here. At most, the federal government's arguments only relate to its defense that no NEPA analysis was required, and that is not enough for it to prevail. See Cooksey v. Futrell, 721 F.3d 226, 239 (4th Cir. 2013) ("'[I]n reviewing the standing question, the court must be careful not to decide the questions on the merits for or against the plaintiff, and must therefore assume that on the merits the plaintiffs would be successful in their claims." (quoting City of Waukesha v. E.P.A., 320 F.3d 228, 235 (D.C. Cir. 2003))). But regardless of whether the federal government can ultimately prove this defense (something the district court already has decided it is unlikely to be able to do), the State "has a concrete interest that NEPA was designed to protect" and therefore "possesses the requisite standing to enforce [its] procedural rights under NEPA." *Hodges*, 300 F.3d at 445.

In addition, the federal government's argument that the State lacks standing on the basis that the harm to the State is not imminent misapprehends or purposely ignores the threatened interest of the State and Supreme Court precedent regarding the enforcement of procedural rights. The State is harmed by being rendered the permanent repository for weapons-grade plutonium as a result of DOE's decision

to terminate the MOX Facility without first complying with NEPA or following the congressional mandates of § 3121 of NDAA FY18.⁴ And this harm will occur immediately if DOE is not enjoined from terminating the MOX Facility prior to complying with these congressional mandates.

As discussed above, the State "has a concrete interest that NEPA was designed to protect," and similarly, Congress enacted § 3121 of NDAA FY18 which requires a commitment to remove MOXable plutonium from South Carolina—to, in part, protect South Carolina from becoming the permanent repository for the Nation's defense plutonium. Contrary to the federal government's argument, the fact that the full extent of the harm to the State might not manifest itself until several years in the future is irrelevant to the inquiry. See Lujan v. Defenders of Wildlife, 504 U.S. 555, 572 n.7 ("[U]nder our case law, one living adjacent to the site for proposed construction of a federally licensed dam has standing to challenge the licensing agency's failure to prepare an environmental impact statement, even though he cannot establish with any certainty that the statement will cause the license to be withheld or altered, and even though the dam will not be completed for many years."); see also Massachusetts v. E.P.A., 549 U.S. 497, 518 (2007) ("When a litigant is vested with a procedural right, that

⁴ Specifically, as discussed below, the harm is the resulting increased radiation exposure to the public, which has not been studied, and the increased threat to the State of terrorist or rogue nation action to acquire the plutonium from SRS.

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litigant has standing if there is some possibility that the requested relief will prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant."). Accordingly, the State has standing to enforce its rights.

II. The district court did not abuse its discretion by issuing a preliminary injunction to maintain the status quo during the pendency of this lawsuit because all the factors for the preliminary injunction were satisfied.

To obtain the preliminary injunction, the State demonstrated: "(1) that [it] is likely to succeed on the merits, (2) that [it] is likely to suffer irreparable harm in the absence of preliminary relief, (3) that the balance of equities tips in [its] favor, and (4) that an injunction is in the public interest." Winter v. Natural Resources Defense Council, Inc., 555 U.S. 7, 19-20 (2008). "The traditional office of a preliminary injunction is to protect the status quo and to prevent irreparable harm during the pendency of a lawsuit ultimately to preserve the court's ability to render a meaningful judgment on the merits." In re Microsoft Corp. Antitrust Litig., 333 F.3d 517, 525 (4th Cir. 2003); see Omega World Travel, Inc. v. Trans World Airlines, 111 F.3d 14, 16 (4th Cir. 1997) ("The purpose of interim equitable relief is to protect the movant, during the pendency of the action, from being harmed or further harmed in the manner in which the movant contends it was or will be harmed through the illegality alleged in the complaint."). The status quo is the "last uncontested status between the parties which preceded the controversy." Pashby v. Delia, 709 F.3d 307, 320 (4th Cir. 2013).

A. South Carolina is likely to succeed on the merits.

1. DOE has violated NEPA.

The federal government has acknowledged and conceded in various court filings the following facts:

- No NEPA analysis exists or has been conducted that studies the impacts of the storage of defense plutonium at SRS beyond 2046.
- No NEPA analysis exists or has been conducted that studies the "Dilute and Dispose" defense plutonium disposal method alternative for the 34 metric tons of "MOXable plutonium."
- A NEPA analysis, and specifically an EIS, is required to be performed prior to making any decision regarding the "Dilute and Dispose" defense plutonium disposal method alternative.
- No NEPA analysis exists or has been conducted that studies the termination of the MOX Project.
- Should the MOX Project be terminated, there is no NEPA-studied or legally authorized or approved disposition pathway for the "MOXable plutonium" at SRS.

Applying these undisputed facts to the applicable legal framework inescapably leads to the conclusion that DOE is required to comply with NEPA **prior** to taking

any action to terminate MOX and, moreover, that such compliance is the preparation of a new or supplemental EIS.

- i. DOE must comply with NEPA prior to terminating the MOX Project.
 - a. NEPA Requirements and Framework Applicable to the MOX Project.

NEPA directs all federal agencies to assess the environmental impact of proposed actions that significantly affect the quality of the human environment. 42 U.S.C.A. § 4332(2)(C). NEPA was enacted to ensure that federal agencies carefully and fully contemplate the environmental impact of their actions—the "hard look"—and to ensure that sufficient information on the environmental impact is made available to the public before actions are taken. 42 U.S.C.A. § 4342; *see* 40 C.F.R. Parts 1500-1508 (implementing regulations of the Council on Environmental Quality); 10 C.F.R. Part 1021 (DOE implementing regulations of NEPA).

"For each DOE proposal, DOE shall coordinate its NEPA review with its decisionmaking." 10 C.F.R. § 1021.210(a) (emphasis added). "DOE shall complete its NEPA review for each DOE proposal before making a decision on the proposal⁵

⁵ "DOE proposal ... means a proposal ... for an action, if the proposal requires a DOE decision." 10 C.F.R. § 1021.104. "Action means a project, program, plan, or policy ... that is subject to DOE's control and responsibility." 10 C.F.R. § 1021.104. A "project" is a "specific DOE undertaking ... which may

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(e.g., normally in advance of, and for use in reaching, a decision to proceed with detailed design)...." 10 C.F.R. § 1021.210(b) (emphasis added). "If an EIS or [Environmental Assessment (EA)] is prepared for a DOE proposal, **DOE shall consider the alternatives** analyzed in that EIS or EA *before* **rendering a decision** on that proposal; the decision on the proposal shall be within the range of alternatives analyzed in the EA or EIS." 10 C.F.R. § 1021.210(d) (emphasis added).

DOE also "shall provide for adequate and timely NEPA review of DOE proposals.... In its planning for each proposal, DOE shall include adequate time and funding for proper NEPA review and for preparation of anticipated NEPA documents." 10 C.F.R. § 1021.200(a) (emphasis added). Moreover, "DOE shall begin its NEPA review as soon as possible after the time that DOE proposes an action or is presented with a proposal." 10 C.F.R. § 1021.200(b) (emphasis added); see 40 C.F.R. § 1502.5 (environmental analysis must be completed "early enough so that it can serve practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made.").

Additionally, "DOE may prepare a NEPA document for any DOE action at any time in order to further the purposes of NEPA. This may be done to analyze the consequences of ongoing activities, support DOE planning, assess the need for include design, construction, and operation of an individual facility...." 10 C.F.R. § 1021.104.

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mitigation, fully disclose the potential environmental consequences of DOE actions, or for any other reason." 10 C.F.R. § 1021.300(b) (emphasis added).

An EIS is prepared when a major federal action is proposed that may significantly affect the quality of the environment. 42 U.S.C.A. § 4332(2)(C); 40 C.F.R. § 1501.4(a)(1); 10 C.F.R. § 1021.310. An EIS is a "detailed written statement" that "provide[s] full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. §§ 1502.1, 1508.11; see 10 C.F.R. § 1021.104 (incorporating the § 1508.11 definition of "EIS"). "At the heart of an EIS is the required analysis of 'alternatives to the proposed action.' In this section, the agency must '[r]igorously explore and objectively evaluate all reasonable alternatives." Webster v. U.S. Dep't of Agric., 685 F.3d 411, 427 (4th Cir. 2012). "No action [pursuant to a ROD] shall be taken until the decision has been made public." 10 C.F.R. § 1021.315(d).

After a ROD is issued, changes in circumstance may occur that cause an agency to revisit an action. If, after an EIS has been prepared for a proposed action, there are substantial changes in the proposed action or there are new circumstances bearing on the proposed action or its impacts, then "DOE shall prepare a supplemental EIS...." 10 C.F.R. § 1021.314(a); *see* 40 C.F.R. § 1502.9(c). If "it is

unclear whether or not an EIS supplement is required, DOE shall prepare a Supplement Analysis." 10 C.F.R. § 1021.314(c).

Further, the DOE regulations have appendices that provide guidance on the magnitude of actions that may require an EIS or an EA. For example, in the appendix, the "[s]iting, construction or expansion, and operation of disposal facilities for transuranic (TRU) waste" is an action that normally requires an EIS.⁶ A supplemental EIS (SEIS) is prepared, circulated, and finalized utilizing the same procedures as an EIS (except for scoping, which is optional). 10 C.F.R. § 1021.314(d).

Importantly, "[u]ntil an agency issues a record of decision..., no action concerning the proposal shall be taken which would: (1) Have an adverse environmental impact; or (2) Limit the choice of reasonable alternatives." 40 C.F.R. 1506.1(a); *see* 10 C.F.R. § 1021.211, .315(d) ("No action [pursuant to a ROD] shall be taken until the decision has been made public.").

Here, there is no question that DOE and NNSA must comply with NEPA when rendering decisions and taking action related to the disposition of defense plutonium at SRS. *See* 50 U.S.C.A. § 2461 (requiring the NNSA to comply with "all applicable environmental ... requirements."); 50 U.S.C.A. § 2566 (requiring

⁶ Transuranic (TRU) waste means waste with an atomic number greater than that of uranium (92). The defense plutonium at issue in this case, largely Pu-238, is TRU waste.

NEPA compliance for MOX-related decisions). There are several NEPA-related documents that have been promulgated and issued regarding the selection of the MOX process and the plutonium disposition pathway, demonstrating that DOE understands it must comply with NEPA before rendering a decision related to the MOX Project. It also is indisputable that the decisions made regarding the MOX Project are subject to NEPA and that addressing the storage and/or disposition of weapons-grade plutonium has a significant impact on the human environment (as evidenced by the prior environmental impact statements issued by DOE for storage and disposition activities at SRS). Therefore, it is apodictic that DOE is required to complete an EIS before terminating the MOX Project.

b. Plutonium at SRS.

The federal government has previously told the district court that decisions involving "a substance with the potential to have as much impact on the environment as plutonium" should be subject to "a very thorough, deliberate process." *South Carolina v. United States*, 1:16-cv-00391-JMC, ECF No. 100 at 16. And as the federal government told this Court in their appeal of the district court's prior order to remove plutonium in accordance with Section 2566:

Unfortunately, the same nuclear properties of plutonium that make it attractive to science also make this element hazardous to human beings. Many forms of plutonium can spontaneously ignite when exposed to air. In addition, plutonium's radioactivity requires "a comprehensive safety program[]" involving "planning,

personnel practices and engineered controls," as well as "mass limitations, training, procedures, postings, personnel and area radiation monitoring, and emergency response."

Appellants' Br. 2, *South Carolina v. United States*, No. 18-1148 (4th Cir.) (quoting Int'l Atomic Energy Agency, *Safe Handling & Storage of Plutonium* 91 (1998)). The Nuclear Regulatory Commission, in its decision approving the MOX Facility construction, stated that

[t]he primary benefit of operation of the proposed MOX facility would be the resulting reduction in the supply of weapons-grade plutonium available for unauthorized use once the plutonium component of MOX fuel has been irradiated in commercial nuclear reactors. Converting surplus plutonium in this manner is viewed as being a safer use/disposition strategy than the continued storage of surplus plutonium at DOE sites.... (DOE 1997).

PI Order 21, [JA 1032]. This is true, in part, because radiation exposure to the public is greater in a MOX Project termination and storage alternative than with the MOX Project. The NRC expressly has found that "continued storage would result in higher annual impacts" of public radiation exposure than implementation of the MOX Project. And the NRC also has discussed the biological effects of radiation:

Low doses may damage or alter a cell's genetic code, or DNA.... Low doses spread out over a long period would not cause an immediate problem. The effects of doses less than 10,000 mrem (100 mSv) over many years, if any, would occur at the cell level. Such changes may not

Genetic effects and cancer are the primary health concerns from radiation exposure. Cancer would be about five times more likely than a genetic effect. Genetic effects might include chromosome changes, stillbirths, congenital abnormalities, and infant and childhood mortality. These effects can result from a mutation in the cells of an exposed person that are passed on to their children. These effects may appear almost immediately if the damaged genes are dominant. Or they may appear several generations later if the genes are recessive.

U.S. NRC Backgrounder, *Biological Effects of Radiation* (March 2017) (emphasis added).⁷ In other words, the continued storage and presence of plutonium at SRS "significantly affect[s] the quality of the human environment" that must be properly analyzed under NEPA.

- ii. A new or supplemental EIS is required prior to termination of the MOX Project.
 - a. DOE has not conducted any analysis of indefinite storage or any storage beyond 2046 at SRS.

The EIS initially designating SRS as the location for the MOX Facility and the transfer and storage of 34 metric tons of defense plutonium at SRS was issued in December 1996 (the PEIS). The PEIS analyzed and evaluated the storage of weapons-grade plutonium at SRS for a period of no more than 50 years. There have been supplements and updates since that time, but no evaluation or analysis

https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/bio-effects-radiation.html.

has been undertaken that reviewed the storage at SRS of weapons-grade plutonium for a period longer than 50 years.⁸

A decision to terminate the MOX Project renders SRS as the repository for defense plutonium indefinitely. Such an alternative was not considered in the PEIS or any supplement or update. The decision to terminate the MOX Project was reached without the "hard look" required by law as to the long-term implications to SRS and the State of South Carolina. It is undisputed that the MOX Project is the only legally authorized and approved disposition pathway for MOXable plutonium. Without the MOX Project, there is no legal, viable, feasible, or funded alternative for disposition or removal of the MOXable plutonium from SRS. In other words, with no approved, practical, feasible alternative, the consequence and impact of the termination of the MOX Project is that the State of South Carolina becomes the *de facto* indefinite, permanent repository of surplus weapons-grade

⁸ The 50-year analysis was the result of an April 1994 study by the Defense Nuclear Facilities Safety Board, which noted that the DOE standard for long-term storage of plutonium "defines containers and atmospheres necessary to keep plutonium metal and oxides in safe storage for up to 50 years." *Plutonium Storage at Major Dep't of Energy Facilities*, April 14, 1994, at 13 [JA 974].

The report further noted that "[t]here does not appear to be much interest ... in further research into the safety implications of long-term plutonium behavior," *id.* at 18 [JA 979] (emphasis added), and that if "DOE adopts one of the disposition options preferred by the National Academy, it would become academic to debate the long-term safety nuances of plutonium metal and oxide." *Id.* at 19-20 [JA 980-81]. In fact, DOE did adopt one of the NAS recommendations—the MOX Project.

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plutonium. The MOXable plutonium at SRS will sit there indefinitely—an "alternative" that has not been studied or analyzed.

DOE has admitted that a "storage without disposition" option—which a termination of the MOX project is since there is no other approved disposition pathway—"would likely require additional NEPA review and public meetings." Report to Congress at 4-26 [JA 111] (emphasis added). The Report to Congress further states that storage without disposition would be a "significant departure from DOE's current decisions and commitments..." Id. at 4-27 [JA 112] (emphasis added). And as previously discussed, DOE has acknowledged the danger and hazard to public health and the environment that plutonium poses. The NRC has recognized in this instance that disposal is safer than long-term storage and that long-term storage results in higher radiation exposure to South Carolina citizens. And in 1994, DOE eschewed the study of impacts of long-term storage (i.e., greater than 50 years) of plutonium because they were supposedly committed to disposal and did not need to undertake such a study. Moreover, a longer storage time increases the probability of an accident involving the plutonium and the threat of rogue state or terrorist action to obtain the plutonium. All of these factors pertain to the requirement for and emphasize the importance of conducting a NEPA "hard look" of DOE's efforts to abandon the MOX Project.

Applying these undisputed facts and admissions to DOE's own regulatory framework for NEPA shows that there is no good faith opposition to the legal requirement that an EIS level analysis be undertaken before a decision can be made that renders the State as the indefinite, permanent repository for MOXable plutonium. NEPA was used to evaluate the environmental impacts of the decision to bring plutonium into the State for no more than 50 years. That decision was implemented based on the premise that the plutonium then being brought into the State would be disposed through the MOX process. Any decision to impose the burden of the impacts of indefinite storage of plutonium on South Carolina must similarly be evaluated under NEPA prior to making that decision.

b. No other disposal or removal alternative exists.

On the one hand, DOE has claimed that its proposal for "Dilute and Dispose" is the alternative to the MOX Project and will ensure removal before the

⁹ NEPA requires either a new EIS or a supplemental EIS because the alternative of indefinite storage is a significant change in circumstance that warrants a new analysis.

Unlike instances where a NEPA evaluation for a project is undertaken to evaluate impacts to the environment caused by the project and then the project is subsequently abandoned for any number of reasons without additional NEPA compliance, in this case, the MOX Project was the "preferred alternative" selected and implemented that resulted in the importation of tons of weapons-grade plutonium into South Carolina. "But for" the prior NEPA analysis, South Carolina would not be home to tons of plutonium residing at SRS. In short, if DOE used NEPA to bring plutonium into the State for the MOX Project, DOE has to comply with the NEPA process to leave plutonium here without a disposition pathway.

end of the 50-year time period. On the other hand, DOE concedes that an EIS is required before action on the "Dilute and Dispose" can be taken and that "Dilute and Dispose" is just a concept and idea, not a real plan.¹¹

DOE has no legal authorization or approval to apply the "Dilute and Dispose" approach to MOXable plutonium. All they have is an idea, for which DOE asked the National Academies of Sciences to "evaluate the general viability of the U.S. Department of Energy's (DOE's) **conceptual plans** for disposing of surplus plutonium in WIPP...." That study is ongoing and not anticipated for completion until 2019. *Disposal of Surplus Plutonium in the Waste Isolation Pilot Plant*, National Academies of Sciences, DELS-NRSB- 17-03, Project Scope (emphasis added).¹²

¹¹ When the U.S. Environmental Protection Agency (EPA) was asked its opinion on utilizing "Dilute and Dispose" for the plutonium intended for MOX disposition, it pointed out the NEPA and environmental analysis that still had to be done. Specifically, the EPA stated:

There would be many steps and some time before the EPA formally becomes involved in exercising its regulatory responsibilities associated with the possible disposal of the 34 MT of plutonium at the WIPP. This includes the National Environmental Policy Act activities that the DOE would be required to do....

Ltr. of E.P.A. dated April 2, 2018 [JA 394].

¹² http://dels.nas.edu/Study-In-Progress/Disposal- Surplus-Plutonium/DELS-NRSB-17-03.

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By DOE's own regulations, "[w]hile DOE is preparing an EIS ..., DOE shall take no action concerning the proposal that is the subject of the EIS before issuing the ROD...." 10 C.F.R. § 1021.211; see 10 C.F.R. § 1021.315(d) ("No action [pursuant to a ROD] shall be taken until the decision has been made public."). In other words, DOE cannot take any action to terminate the MOX Project based on the idea that the concept plan of "Dilute and Dispose" will be utilized for MOXable plutonium. Instead, DOE must finalize and publish an EIS on the proposed "Dilute and Dispose" approach for MOXable plutonium prior to taking such action.

c. Congress has not exempted or excused compliance from NEPA.

DOE posits that it is exempt from NEPA and excused from compliance, Appellants' Br. 27, but cannot point to a single word in any law that would allow the federal government to escape its legal obligations under NEPA.

Instead, since an "alternatives analysis" is the heart of NEPA, by directing the Secretary to find an "alternative," Congress was utilizing language consistent with a NEPA analysis and Congress clearly contemplated NEPA compliance. *Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1112 (D.C. Cir. 1971) ("NEPA, first of all, makes environmental protection a part of the mandate of every federal agency and department."). Further, there must be a "clear and fundamental conflict of statutory duty" before NEPA will be

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found inapplicable to federal decisionmaking, which is not present here. *Flint Ridge Dev. Co. v. Scenic Rivers Ass'n of Oklahoma*, 426 U.S. 776, 791 (1976); *see Jones v. Gordon*, 792 F.2d 821, 825 (9th Cir. 1986) (holding that a 90-day time period to issue a permit was reconcilable with NEPA obligations); *see generally Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 190-92 (1978) (implied repeal of NEPA by appropriations act is strongly disfavored).

DOE has been trying to terminate the MOX Project since 2014. It has had plenty of time to undertake and complete the required EIS for this course of action, but has failed to do so. Whatever urgency DOE may now feel is the result of its own procrastination. Westlands Water Dist. v. U.S. Dep't of Interior, 275 F. Supp. 2d 1157, 1179 (E.D. Cal. 2002), aff'd in part, rev'd in part and remanded, 376 F.3d 853 (9th Cir. 2004) ("If the requirements of NEPA are to have meaning, federal agencies cannot be excused from compliance simply because they move at glacial speed."). "Considerations of administrative difficulty, delay or economic cost will not suffice to strip [NEPA] of its fundamental importance." Calvert Cliffs, 449 F.2d at 1115.

2. DOE's decision to terminate the MOX Project is arbitrary and capricious because DOE's purported commitments and certifications pursuant to § 3121 of NDAA FY18 are baseless.

In addition to properly finding that the State will likely succeed on the merits of its NEPA challenge, the district court correctly concluded that the State will

likely succeed on its claim that DOE's final agency action to terminate the MOX Facility is arbitrary and capricious because DOE failed to comply with the requirements of § 3121 of NDAA FY18. PI Order 24-28 [JA 1035-39].

Initially, the district court correctly rejected the federal government's attempt—repeated in its brief—to pass the May 10 termination letter off as mere "information reporting." *Id.* at 11-15 [JA 1022-26]. Rather, the court properly found—based in part on evidence and testimony submitted by the federal government—that the May 10 termination letter represented the completion of DOE's decisionmaking to terminate the MOX Project and therefore was subject to judicial review as final agency action under the APA. Id. at 12 [JA 1023] (discussing testimony of DOE's witnesses that the May 10 decision was for "termination of the MOX Project"); see Hire Order Ltd. v. Marianos, 698 F.3d 168, 170 (4th Cir. 2012) ("Conduct becomes reviewable under the APA upon 'final agency action,' 5 U.S.C. § 704, in other words, when the agency has completed its decisionmaking process, and [when] the result of that process is one that will directly affect the parties." (quoting Jersey Heights Neighborhood Ass'n v. Glendening, 174 F.3d 180, 186 (4th Cir. 1999))). In contrast to "purely informational" reports at issue in cases cited by the federal government, for which there were no "cognizable legal consequences," Guerrero v. Clinton, 157 F.3d 1190, 1195, 1197 (9th Cir. 1988), the decision to terminate the MOX Facility and DOE's deficient "commitments" and "certifications" have direct legal consequences on the State.

Thus, DOE's May 10 decision is a final agency action subject to the State's APA challenge. In arguing against this conclusion, the federal government primarily relies on the D.C. Circuit's decision in *Natural Res. Def. Council v.* Hodel, 865 F.2d 288 (D.C. Cir. 1988), but, as the district court recognized, that case and the others relied upon by the federal government are inapposite. In *Hodel*, the plaintiff challenged the "sufficiency of [an] agency's response to Congress" that simply provided information to Congress and for which there were no "standards by which to gauge the fidelity of the Secretary's response to the strictures of' the statute. Id. at 318; Guerrero, 157 F.3d at 1195-97 (same). The informational reporting did not serve as the basis for any agency action and was only a "tool for Congress's own use." Id. Similarly, in the Fifth Circuit's decision in United States v. White, 869 F.2d 822, 829 (5th Cir. 1989), the reports submitted by GAO "were solely for Congress's benefit." ¹³

The reports provided in the cases relied upon by the federal government therefore are akin to the report the Senate's Committee on Armed Services has required the Comptroller General to submit regarding the cost analyses conducted by DOE related to the MOX Facility and the "Dilute and Dispose" approach. S. Rep. 115-262, at 414 (June 5, 2018). Unlike the certifications and commitments required by § 3121 of NDAA FY18, this Comptroller General's report would only be a "tool for Congress's own use." And, notably, this Committee report requirement was issued **after** the May 10 decision by DOE, indicating that the Senate does not trust the numbers from DOE that comprise the cost analyses.

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Here, however, § 3121 of NDAA FY18 sets forth the general rule that DOE "shall carry out construction relating to the MOX facility" and DOE can avoid this mandate only if the Secretary adequately makes the requisite commitments and certifications. Accordingly, the (in)adequacy of DOE's commitments and certifications are directly tied to the (un)lawfulness of DOE's final agency action to terminate the MOX Facility and can be judged pursuant to the APA "arbitrary and capricious" standard. See Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) (holding that agency action will be set aside as "arbitrary and capricious" if "the agency has relied on factors which Congress has 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 the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise."). In short, the district court correctly found that the State's challenge to DOE's final agency action to terminate the MOX Facility, including DOE's basis for taking such action, is justiciable under the APA.

The district court also correctly concluded that the State is likely to succeed in demonstrating that DOE's purported "commitments" and "certifications" are without rational basis and that DOE's decision to terminate the MOX Facility therefore is arbitrary and capricious.

The district court properly determined that DOE's purported "commitment" to remove plutonium from South Carolina lacked any factual support. The federal government does not challenge this determination but argues only that the "commitment [to remove plutonium] does not depend on the strength of the underlying evidence." Appellants' Br. 22. However, for every final agency action, DOE "must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made." *Motor Vehicle Mfrs.*, 463 U.S. at 43 (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)). Here, as the district court found, DOE's "commitment" to remove plutonium from South Carolina is completely untethered from the facts and reality (which is an alternative definition of arbitrary and capricious).¹⁴

The primary stated basis for the so-called commitment—that DOE was currently processing **non-MOX** plutonium at SRS—was completely irrelevant to the requested commitment to remove the **MOXable** plutonium from SRS.¹⁵ PI Order 24-25 [JA 1035-36]. The district court also correctly rejected the federal

¹⁴ The federal government's argument is essentially that as long as Secretary Perry used magic words, he need not act in good faith or within the bounds of reality. Under their theory, if the alternative commitment was to drop all the plutonium to the bottom of the ocean or launch it into space towards the sun, this would be perfectly acceptable.

¹⁵ And this is currently not true. DOE is not currently processing **any** plutonium at SRS through "Dilute and Dispose."

government's duplicitous argument that DOE's commitment to remove the plutonium was supported by its commitment to the "Dilute and Dispose" approach because the federal government expressly contends DOE has not made such a commitment yet to avoid a finding that they have violated NEPA by pursuing the "Dilute and Dispose" approach without completing the necessary analyses. *Id.* at 25-26 [JA 1036-37]. The district court saw through DOE's ruse in concluding that DOE is "attempting to have it both ways." Id. DOE's "commitment" to removal also is belied by the fact that they are indisputably in violation of their current statutory obligation under Section 2566 to remove plutonium from South Carolina and are vigorously contesting any statutory obligation to remove any plutonium from the State. United States v. South Carolina, No. 18-1148. Therefore, because there is no "rational connection" between the facts and DOE's so-called commitment to remove plutonium, the district court correctly determined that the State will likely succeed in demonstrating DOE's decision to terminate the MOX Facility based in part on this "commitment" was arbitrary and capricious. *Motor* Vehicle Mfrs., 463 U.S. at 43.

In order to terminate the MOX Facility, DOE also is required to certify that the lifecycle cost of any alternative option is less than half the lifecycle cost of the MOX Project based on estimates of "comparable accuracy." NDAA FY18, § 3121(b)(1)(B)(ii), (b)(2). As recognized by the district court, the evidence

contradicts DOE's claim that the lifecycle estimates for its preferred alternative, "Dilute and Dispose," and the MOX Project are of "comparable accuracy." PI Order 26-27 [JA 1037-38]. The federal government relies solely on the declaration of one DOE employee to support its contention that the estimates were of comparable accuracy, Appellants' Br. 24, but this declaration was considered by the district court and weighed against the other evidence presented, including the GAO report referenced in the federal government's brief. The district court simply gave more weight to the findings of GAO than the self-serving and unsupported statements of DOE.

The federal government's further contention that, by requiring estimates of "comparable accuracy," Congress did not require that the estimates be based on similar methodologies and underlying assumptions, Appellants' Br. 23-24, is nonsensical. It also has been refuted by the Senate Committee on Armed Services. See S. Rep. 115-262, at 414 (June 5, 2018) (requiring Comptroller General to evaluate whether DOE's "cost analyses followed best practices as required by section 3121(b) and . . . whether the cost analyses for the life-cycle cost estimates for both the MOX facility and the dilute and dispose alternative are comparable, credible, accurate, and meet appropriate costing standards for Government Accountability Office" and provide a report to the Committee (emphasis added)). Moreover, the fact that DOE previously stated that the

development of an estimate for the MOX Facility consistent with GAO best practices may not have been feasible this year, Appellants' Br. 23-24, does not mean Congress did not intend to impose such a requirement; it just means that DOE did not meet—and could not have met—this requirement when it issued its May 10 termination decision.¹⁶

Pursuant to § 3121(b)(1)(C) of NDAA FY18, DOE also was required to provide details of the statutory or regulatory changes that would be necessary to complete its preferred alternative prior to terminating the MOX Project. DOE's May 10 termination letter did not identify a single statutory or regulatory change that was necessary for DOE to pursue the "Dilute and Dispose" approach. PI Order 27-28 [JA 1038-39]. However, the district court correctly identified two statutes requiring change that were not identified by DOE. *Id*.

The first was the WIPP Land Withdrawal Act, which, as recent as 2014, DOE represented "would require amendment" to complete the tasks necessary for "Dilute and Dispose." PI Order 28 [JA 1039]; see Report of the Plutonium Disposition Working Group: Analysis of Surplus Weapon-Grade Plutonium Disposition Options, DOE, at 34 (Apr. 2014) [JA 617] (finding that implementation of "Dilute and Dispose" approach "would require Congressional

¹⁶ As discussed regarding the NEPA claim, just because DOE could not comply with its legal obligations on the timeline that it chose to try and terminate the MOX Project does not mean that DOE may ignore the law. It just means DOE has to take the time to comply with the law first.

action, including amendment to existing legislation or enactment of new legislation"). Therefore, the district court correctly determined that DOE failed to identify the WIPP Land Withdrawal Act as a statute requiring amendment for DOE to proceed with "Dilute and Dispose." The federal government provides only unsupported conclusory statements in arguing that DOE did not have to identify this statute because it was seeking a modification of its permit at WIPP. Appellants' Br. 25. However, the plain language of § 3121(b)(1)(C) of NDAA FY18 required DOE to provide "the details of any statutory or regulatory changes necessary to complete the alternative option" at the time of DOE's certification. And it cannot be disputed that, at the time DOE submitted the May 10 termination decision, no permit modification had been granted¹⁷ and, thus, the WIPP Land Withdrawal Act was a statute that would have to be amended for DOE to pursue the "Dilute and Dispose" approach.

Second, the district court correctly identified Section 2566 as a statute requiring amendment in order to allow "Dilute and Dispose" because it mandates removal by January 1, 2022, of all defense plutonium moved to South Carolina since April 15, 2002. The "Dilute and Dispose" approach would not, by DOE's

¹⁷ In fact, as the district court found, the New Mexico Environment Department rejected DOE's "attempt to fast-track their permit modification request and is now requiring a more extensive review of the request because of the 'significant public concern and complex nature of the proposed change." PI Order 27-28 [JA 1038-39].

own estimates, remove even one metric ton of plutonium from South Carolina until at least 2025 and also would require importing 26 **more** metric tons of plutonium into the State.¹⁸ PI Order 28 [JA 1039]. The federal government does not dispute that this statute requires amending but instead contends—without any support—that Congress already was aware amendment would be required for DOE to pursue the "Dilute and Dispose" approach.¹⁹ Appellants' Br. 25-26. But nothing in the record supports this assertion, and in any event, DOE was required to identify the "details of **any** statutory or regulatory changes necessary to complete the alternative option."

B. South Carolina will suffer irreparable harm in the absence of the preliminary injunction.

The State will be harmed if the status quo is not maintained and DOE is allowed to issue the Full Stop Work Order. Because issuance of the Full Stop Work Order and termination of the MOX Facility construction labor force and contractor—the immediate and irreparable effect of DOE's May 10 termination decision—is the "event horizon" for terminating the MOX Project,

 $^{^{18}}$ DOE claims in its brief that no additional plutonium would be imported into the State, Appellants' Br. 18, but this is patently false under DOE's own "Dilute and Dispose" idea as presented to the district court. Calbos Decl. ¶ 9 [JA 952-53].

¹⁹ In making this argument, the federal government evinces its complete misunderstanding (which pervades its brief) of Section 2566 and the difference between the requirements for the removal of plutonium from South Carolina and the requirements for the plutonium disposition program as a whole.

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[i]f the Full Stop Work order is issued, the State . . . will be robbed of the opportunity to obtain a meaningful judgment on the merits of its claims that [DOE's] decision to terminate the MOX Facility and leave South Carolina as the permanent repository for plutonium is unlawful.

PI Order 30 [JA 1041] (citing, *inter alia*, *In re Microsoft*, 333 F.3d at 525 ("The traditional office of a preliminary injunction is to protect the status quo and to prevent irreparable harm during the pendency of a lawsuit ultimately to preserve the court's ability to render a meaningful judgment on the merits.")).

Moreover, the State would be harmed by implementation of the termination decision uninformed by the requisite NEPA analyses. PI Order 29-30 [JA 1040-41] ("Accordingly, 'irreparable harm [exists] when agencies become entrenched in a decision uniformed by the proper NEPA process because they have made commitments or taken action to implement the uniformed decision." (quoting Conservation Law Found. Inc. v. Busey, 79 F.3d 1250, 1271 (1st Cir. 1996)). And, as the district court correctly held, "[t]his harm 'is not merely a procedural harm, but is the added risk to the environment that takes place when government decision makers make up their minds without having before them an analysis (with prior public comment) of the likely effects of their decision upon the environment." Id. (quoting Busey, 79 F.3d at 1271-72 & Sierra Club v. Marsh, 872 F.2d 497 (1st Cir. 1989)).

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The federal government has presented no legal authority or legitimate argument to refute these conclusions. Instead, the federal government's only response is that there is, as the district court described it, a "scant possibility" that the MOX Project could be restarted. PI Order 30 [JA 1041]. However, the district court rejected this argument based on the evidence presented and the practical effect of the Full Stop Work Order. PI Order 30 [JA 1041]. And the district court did not solely rely on the evidence presented by the State, as the federal government suggests, but primarily relied on evidence and testimony presented by the federal government showing that the May 10 decision and the Full Stop Work Order were for terminating the MOX Facility. PI Order 12, 30 [JA 1023, 1041] (citing Raines and Walker declarations).

C. The balance of equities and the public interest favor the preliminary injunction.

The district court also correctly determined that the balance of equities and public interest favor the issuance of the preliminary injunction. The federal government contends the district court was wrong solely because of the alleged financial impact resulting from the preliminary injunction. However, the expenditure of funds by DOE for construction of the MOX Facility is simply the status quo because "Congress has instructed [DOE] to continue construction of the MOX Facility this fiscal year and already appropriated funds for that specific purpose." PI Order 31 [JA 1042]. In other words, the preliminary injunction only

requires DOE to do exactly what it was doing prior to the May 10 termination decision until the district court determines the legality of that decision, *Pashby*, 709 F.3d at 320 (defining the status quo as the "last uncontested status between the parties which preceded the controversy."), which is utilizing funds for the purpose for which they were appropriated. But even if the alleged financial impact were an appropriate consideration,²⁰ given the district court's determination that the State will likely succeed on the merits, the expenditure on **terminating** the MOX Facility of funds appropriated for constructing that facility would be an improper use of taxpayer monies, violate the Constitution and federal law,²¹ and would not serve the public interest.

²⁰ The federal government's claim that spending \$1.2 million a work day on construction is harmful is specious. This number is not based on any actual calculation and is based on invoices rather than actual payments. Per DOE, any funds expended this year also would primarily be for "installing pipe, electrical conduit, [and] HVAC duct," Raines Decl. ¶11 [JA 578], all of which likely would be needed regardless of whether the current facility is used for the MOX Project or some other future purpose.

Such an expenditure now on the MOX Project termination, and a subsequent order that termination was unlawful, would result in DOE violating the Appropriations Clause, U.S. Const. art. I, § 9, cl. 7, the Purpose Statute, 31 U.S.C.A. § 1301(a), and the Anti-Deficiency Act, 31 U.S.C.A. § 1341(a). These were the same grounds for the first lawsuit filed by South Carolina against DOE in 2014, when the federal government proposed shuttering the MOX Project and using funds appropriated for another purpose to do it. The federal government capitulated and agreed to spend the money for its intended purpose—construction of the MOX Project.

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There also is no legitimate argument that either DOE or the public are harmed by DOE complying with the law—the "last uncontested status between the parties"—while this litigation is pending. In fact, the federal government completely ignores the district court's determination that the public interest is served by maintaining the status quo pending a decision on the merits to ensure DOE's decision to terminate the MOX Facility complied with the law and, specifically, with NEPA:

Requiring the government to act in accordance with the law is a public interest of the highest order... [and] [c]ompliance with NEPA also furthers the public interest in having public officials, and the public itself, fully informed about the likely consequences of actions prior to those actions being taken.

PI Order 34-35 [JA 1045-46] (citing cases and NEPA regulations).

The public interest is also served by the preliminary injunction because DOE's hurried termination of the MOX Facility overturns "decades of the United States' plutonium disposition policy" and would violate one of the Nation's international nonproliferation agreements. *Id.* at 33-35 [JA 1044-46]. The nonproliferation agreement with Russia was used to justify moving defense plutonium into South Carolina, and now DOE's termination action would abandon and renounce this international agreement. *Id.* at 32-33 [JA 1043-44]; Decl. of Linton F. Brooks, *Hodges v. Abraham*, C/A No. 1:02-cv-01426-CMC [JA 317, 321] (testifying that any delay or uncertainty in the MOX Project could "kill" the

international agreement and "would call into question the Unites States' commitment to other nonproliferation efforts and diminish our credibility in continuing to provide leadership on these issues internationally"). In fact, as the district court found, "[DOE has] previously recognized that the very path they now desire to take violates an international nonproliferation agreement with Russia." *Id.* at 33 [JA 1044]; *Report to Congress* 4-25 [JA 110] ("[the long-term storage option without disposition] does not achieve the U.S. plutonium disposition mission and it renounces the U.S.-Russian PMDA.... It would represent a reversal of the U.S. position on disposition of surplus plutonium, be derided internationally, and be opposed by the states and the public.").

The public interest also favors the preliminary injunction because it is consistent with the mandates of Section 2566. *Johnson v. U.S. Dep't of Agriculture*, 734 F.2d 774, 788 (11th Cir. 1984) ("Congressional intent and statutory purpose can be taken as a statement of public interest."). Section 2566 sets forth the public interest in building MOX, maintaining a viable disposition pathway, and preventing permanent dumping of plutonium in South Carolina. The proposed termination of the MOX Project is the antithesis of honoring this congressional intent and statutory purpose.

In short, the irreparable harm to the State of being deprived of its right to obtain meaningful judicial review of DOE's decision to terminate the MOX

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Facility and leave South Carolina as the permanent repository of defense plutonium outweighs any alleged financial impact to DOE of maintaining the status quo. The public interest also is served in requiring DOE to comply with NEPA in rendering decisions that have significant impacts on the human environment; in requiring DOE to undertake informed decisionmaking after considered analysis; in honoring the international commitment for non-proliferation; and in following the congressional mandate of Section 2566.

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Conclusion

For these reasons, the district court correctly issued a preliminary injunction maintaining the status quo during the pendency of this lawsuit. This Court therefore should affirm the district court's preliminary injunction.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) because it contains 10,910 words. This brief also complies with the typeface and type-style requirements of Federal Rule of Appellate Procedure 32(a)(5)-(6) because it was prepared using Microsoft Word in Times New Roman 14-point or larger font.

s/Randolph R. Lowell
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CERTIFICATE OF SERVICE

I hereby certify that on August 10, 2018, I electronically filed the foregoing brief with the Clerk of Court for the United States Court of Appeals for the Fourth Circuit by using the appellate CM/ECF system. Participants in the case are registered CM/ECF users, and service will be accomplished by the appellate CM/ECF system.

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