IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

BEYOND NUCLEAR, *et al.*, Plaintiffs, v. U.S. DEPARTMENT OF ENERGY, *et al.*, Defendants.	No. 1:16-cv-01641 (TSC)

DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

Pursuant to Rule 56 of the Federal Rules of Civil Procedure, and Local Civil Rule 7(h), Defendants, through undersigned counsel, hereby move for entry of summary judgment on all counts of Plaintiffs' complaint (ECF 4). The administrative record demonstrates that Defendants' decision not to prepare a new environmental assessment or a new, supplemental, or programmatic environmental impact statement (EIS) for their proposal to accept target residue material from Canada in liquid form was reasonable. The record shows that Defendants' previous EISs thoroughly evaluated the potential environmental impacts of accepting target material from Canada for management in the United States, and the record supports Defendants' Supplement Analyses finding that the impacts of accepting the material in a liquid form would not significantly differ from the impacts that Defendants previously evaluated with regard to accepting the material in a solid form.

Defendants' determinations are entitled to deference. Plaintiffs have not met their burden to show that transportation of the material in liquid form constitutes a substantial change or significant new circumstances or information relevant to environmental concerns requiring further study beyond the extensive study Defendants have already completed.

For these reasons and others set forth in the accompanying Memorandum, the Court should enter summary judgment in favor of Defendants.

Respectfully submitted this 4th day of November 2016,

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DEFENDANTS' MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF THEIR MOTION FOR SUMMARY JUDGMENT

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I. INTRODUCTION

Plaintiffs' lawsuit challenges a proposal by the Department of Energy ("DOE") to accept material containing highly enriched uranium of United States origin from research reactors in Canada. Although Canada uses the highly enriched uranium "targets" to make molybdenum-99, a medical isotope, the highly enriched uranium is also weapons-grade nuclear material. It can be used to make a nuclear bomb or an improvised nuclear device. Thus, since 1995, as part of the United States' efforts to stop the proliferation of nuclear weapons and prevent weapons-grade nuclear material from falling into the hands of terrorists, DOE has pursued a policy of returning U.S.-origin highly enriched uranium to the United States from foreign research reactors. Under that policy, DOE will accept the material that is left over from Canada's production of molybdenum-99 from targets containing U.S.-origin highly enriched uranium. When this target residue material ("target material") arrives in the United States, it will be processed and down-blended at DOE's Savannah River Site near Aiken, South Carolina, to create low-enriched uranium for commercial power reactors. Low-enriched uranium cannot be directly used to make a nuclear weapon.

Plaintiffs contend that DOE has not complied with its obligation under the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4370m, to consider the potential environmental effects of accepting shipments of target material from Canada. To the contrary, DOE prepared not one but three environmental impact statements ("EIS") pursuant to NEPA. These statements comprehensively analyzed the potential effects of accepting U.S.-origin highly enriched uranium from foreign research reactors, in the form of spent nuclear fuel or target material, for management and disposition in the United States. The 1996 EIS specifically

considered the effects of accepting target material from Canada and transporting it to the Savannah River Site.

The shipments of target material from Canada that Plaintiffs seek to enjoin are a component of a comprehensive policy that DOE has been implementing for the past 20 years. DOE issued Records of Decision based on its EISs in 1995, 1996, and 2000. Those decisions may no longer be challenged under the applicable statute of limitations, 28 U.S.C. § 2401(a), and the ongoing implementation of those decisions is not reviewable final agency action, *see Norton v. S. Utah Wilderness All.*, 542 U.S. 55, 64 (2004). The only implementation decision at issue in this lawsuit is DOE's decision, in 2013, to accept shipments of the target material in liquid form rather than solid form. DOE's policy choices are not before the Court.

DOE fulfilled its NEPA obligations with respect to accepting the target material from Canada in liquid form. In 2013, pursuant to its agency-specific NEPA procedures, DOE prepared a document called a Supplement Analysis to evaluate whether the proposed change – *i.e.*, the transportation of target material from Canada in a liquid form rather than solid form – necessitated the supplementation of any of the previous EISs, or preparation of a new EIS. DOE determined no further NEPA documentation was needed. The Supplement Analysis found that, contingent on the transportation arrangements receiving the necessary regulatory approvals, the potential impacts of accepting the target material in a liquid rather than solid form would not differ significantly from those DOE had considered in detail in its prior EISs. DOE issued a second Supplement Analysis in 2015 after the regulatory approvals were issued by the Nuclear Regulatory Commission ("NRC"), Department of Transportation ("DOT"), and Canadian Nuclear Safety Commission ("CNSC"), respectively. DOE found that the analysis supporting the approvals confirmed the determination in the 2013 Supplement Analysis.

DOE reasonably concluded that no supplemental or new EIS was required, and that determination is entitled to the highest deference because it rests on DOE's technical judgments. The administrative record shows that DOE complied with NEPA at every step of the decision process to accept target material from Canada in liquid form. Plaintiffs' claims to the contrary are meritless, as are their follow-on claims alleging violations of the Atomic Energy Act, 42 U.S.C. §§ 2011-2297g, the Department of Energy Organization Act of 1977, 42 U.S.C. § 7112, and the Administrative Procedure Act ("APA"), 5 U.S.C. §§ 701-706(2).

Summary judgment should be entered in favor of Defendants, and against Plaintiffs, on all counts of their complaint.

II. STATUORY AND REGULATORY BACKGROUND

A. The National Environmental Policy Act.

NEPA is a procedural statute requiring federal agencies to consider the potential environmental impacts of their proposed actions, while at the same time ensuring public dissemination of relevant information. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). NEPA's purpose is to ensure "'a fully informed and well-considered decision, not necessarily' the best decision." *Theodore Roosevelt Conserv. P'ship v. Salazar*, 616 F.3d 497, 503 (D.C. Cir. 2010) ("*Theodore Roosevelt I*") (quoting *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 558 (1978)). NEPA does not mandate particular results or "require agencies to elevate environmental concerns over other appropriate considerations." *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983). As the Supreme Court has explained, "[i]f the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs." *Robertson*, 490 U.S. at 350. Thus, NEPA exists to ensure a process, not any particular result. *Id.*

An agency's obligation under NEPA is to take a "hard look" at environmental consequences before approving a major federal action. *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976). NEPA requires that, for "major Federal actions significantly affecting the quality of the human environment," a federal agency must prepare an EIS, which is a detailed statement on the environmental impact of the proposed action, including an analysis of alternatives to the proposed action. 42 U.S.C. § 4332(2)(C). "The EIS is a detailed analysis, prepared with expert assistance, of the projected environmental impact of a proposed major federal action." *Theodore Roosevelt Conserv. P'ship v. Salazar*, 661 F.3d 66, 68 (D.C. Cir. 2011) ("*Theodore Roosevelt II*") (citing *Theodore Roosevelt I*, 616 F.3d at 503). In preparing EISs, an agency is guided by regulations, promulgated by the Council on Environmental Quality ("CEQ") at 40 C.F.R. §§ 1500 -1508,[1] which are applicable to all federal agencies, as well as agency-specific implementing regulations, such as DOE's regulations in 10 C.F.R. Part 1021.[2]

Once an agency completes an EIS on a proposal for major federal action,[3] the CEQ regulations require the agency to issue a "record of decision," or ROD, stating its decision, identifying the alternatives considered, identifying other factors including "any essential considerations of national policy which were balanced by the agency in making its decision," and stating whether all practicable means to avoid or minimize environmental harm from the selected alternative have been adopted or, if not, why not. 40 C.F.R. § 1505.2.

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[1] The CEQ regulations are entitled to substantial deference. *See Robertson*, 490 U.S. at 355-56; *accord Andrus v. Sierra Club*, 442 U.S. 347, 358 (1979).

[2] The CEQ regulations require each federal agency to adopt implementing procedures to supplement the CEQ regulations. 40 C.F.R. § 1507.3. DOE's regulations at 10 C.F.R. pt. 1021 adopt and supplement the CEQ regulations. *See* 10 C.F.R. §§ 1021.100-.103.

[3] The CEQ regulations allow an agency to first prepare an environmental assessment ("EA") to aid in its decision making and to determine whether a full EIS must be prepared on the proposed action. 40 C.F.R. § 1501.3.

A further provision of the CEQ regulations deserves mention in light of the issues raised by Plaintiffs. The CEQ regulations address when agencies must supplement a draft or final EIS to take account of changed circumstances, including changes to a project, and new information. Section 1502.9(c) requires supplementation where "[t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns" or "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502(c)(1)(i), (ii); *see also Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 370-78 (1989) (discussing the supplementation requirement under NEPA and the CEQ regulations). DOE's own NEPA regulations track and incorporate these requirements. *See* 10 C.F.R. § 1021.314(a) ("DOE shall prepare a supplemental EIS if there are substantial changes to the proposal or significant new circumstances or information relevant to environmental concerns, as discussed in 40 C.F.R. § 1502.9(c)(1)"); *Nevada v. Dep't of Energy*, 457 F.3d 78, 87 (D.C. Cir. 2006).

In *Marsh*, the Supreme Court held that the decision whether to prepare a supplemental EIS is similar to the decision whether to prepare an EIS in the first place: "'[i]f there remains 'major Federal action' to occur, and if the new information is sufficient to show that the remaining action will 'affect the quality of the human environment' in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared.'" *Marsh*, 490 U.S. at 374 (internal brackets and citation omitted). It follows that not every change in circumstance or piece of new information requires the preparation of a supplemental EIS; only "*substantial* changes to the proposal or *significant* new circumstances or information *relevant to environmental concerns*." 10 C.F.R. § 1021.314(a) (emphasis added); *accord* 40 C.F.R. § 1502.9(c)(1). As the D.C. Circuit recently summarized it, "'[n]ew and significant' information

presents 'a seriously different picture of the environmental impact of the proposed project from what was previously envisioned.'" *Blue Ridge Envtl. Def. League v. Nuclear Reg. Comm'n*, 716 F.3d 183, 196 (D.C. Cir. 2013) (quoting *Hydro Res., Inc.*, 50 N.R.C. 3, 14 (1999), and citing *Marsh*, 490 U.S. at 374).

The CEQ regulations do not prescribe the form in which agencies determine *whether* a change in the proposed action, changed circumstances, or new information rises to the level of significance. DOE's NEPA regulations, however, require preparation of a Supplement Analysis "[w]hen it is unclear whether or not an EIS supplement is required." 10 C.F.R. § 1021.314(c). Under this regulation, a Supplement Analysis "shall discuss the circumstances that are pertinent to deciding whether to prepare a supplemental EIS, pursuant to 40 CFR 1502.9(c)," *id.* § 1021.314(c)(1), and "shall contain sufficient information" for DOE to determine whether an existing EIS should be supplemented, a new EIS should be prepared, or no further NEPA documentation is required, *id*. § 1021.314(c)(2). *See Hodges v. Abraham*, 300 F.3d 432, 439, 446 (4th Cir. 2002) (summarizing DOE's regulations regarding supplementation of an EIS and upholding the use of an SA).

B. The Atomic Energy Act and Department of Energy Organization Act.

The Atomic Energy Act of 1954, as amended authorizes DOE to possess and acquire, by purchase or other means, "any special nuclear material or interest therein," dispose of such material as provided in the Act, and, in respect to such material, promote the common defense and security, protect public health, and minimize danger to life and property. 42 U.S.C. §§ 2075, 2201.[4] DOE is also authorized to enter into agreements for cooperation with foreign

[4] References to "Commission" in the Atomic Energy Act are to the Atomic Energy Commission, the predecessor agency to DOE. *See* 42 U.S.C. § 2014(f).

nations to ensure, among other things, that applicable safeguards be maintained with respect to nuclear material transferred to such foreign nations. 42 U.S.C. § 2153(a)(2).

The Department of Energy Organization Act of 1977 ("DOE Act") established the DOE and vested it with the functions of various predecessor agencies. The declaration of purpose for the DOE Act states that Congress intended the agency to "establish and implement . . . in coordination with the Secretaries of State, Treasury, and Defense, policies regarding international energy issues that have a direct impact on research, development, utilization, supply, and conservation of energy in the United States and to undertake activities involving the integration of domestic and foreign policy relating to energy . . . ." 42 U.S.C. § 7112(10). Congress also expressed that a purpose of the DOE was to "assure incorporation of national environmental protection goals in the formulation and implementation of energy programs, and to advance the goals of restoring, protecting, and enhancing environmental quality, and assuring public health and safety." *Id.*. § 7112(13). DOE meets these environmental goals, in part, through compliance with NEPA. *See* 10 C.F.R. § 1021.101.

C. Regulations governing the transportation of nuclear material.

The transportation of nuclear material is subject to a regulatory regime developed and adopted by the international community through regulations of the International Atomic Energy Agency ("IAEA"). AR 139:27,338; *see also* AR 87:24,871 (IAEA Safety Standards, Regulations for the Safe Transport of Radioactive Materials 2012 Edition).[5] As IAEA regulations are issued and updated, individual nations promulgate compatible regulations for ensuring the safe transport of radioactive material both within and between nations. In the

[5] Citations to the certified Administrative Record are given as "AR" followed by the index number, and then the Bates-stamped page number.

United States, the DOT and NRC promulgate regulations governing the transportation of radioactive material. AR 139:27,338-39.

The IAEA regulations classify the levels of radioactive material packaging and impose increasingly stringent requirements in accordance with the activity and physical form of the radioactive material contained in the package. The IAEA classifications are mirrored in the NRC regulations promulgated at 10 C.F.R. Part 71.

III. FACTUAL BACKGROUND

Since 1945, every U.S. Administration has recognized that preventing the spread of nuclear weapons is a fundamental national security and foreign policy objective of the United States. AR 22:8026. Recognizing the impossibility of preventing other nations from acquiring nuclear technology, the United States adopted a policy in the 1950s – known as the "Atoms for Peace" program – that conditioned the provision of peaceful nuclear technology to foreign nations on their promise not to develop nuclear weapons. *Id.* This policy was incorporated into a 1954 revision to the Atomic Energy Act of 1946, which required foreign nations to pledge not to use nuclear materials or equipment provided by the United States for military purposes. *Id.*; 42 U.S.C. § 2153(a).

A. The use of U.S.-origin highly enriched uranium in foreign research reactors.

A major component of the Atoms for Peace program was the provision of highly enriched uranium of U.S. origin for use in foreign research nuclear reactors ("foreign research reactors"). AR 22:8026.[6] Foreign research reactors play a vital role in important medical, agricultural, and industrial applications and have become the major civilian users of highly enriched uranium provided by the United States. *Id.*; AR 23:9574. Depending upon the use in a foreign research

[6] Uranium enriched to 20% or more in isotope 235 (^{235}U) is known as highly enriched uranium (or "HEU," in Plaintiffs' complaint). AR 22:8026.

reactor, the highly enriched uranium may be either in spent nuclear fuel or in target material derived from radioisotope production. AR 22:8348.[7] In this case, what we call "target material" is the residual material from medical isotope production targets that have been irradiated in research reactors and then dissolved in nitric acid, in this instance to recover molybdenum-99, which decays into a radioisotope used in medical applications such as cancer diagnosis and treatment. AR 22:7947. The process of chemically separating the molybdenum-99 results in a residual solution (the target material) that still contains a high percentage of ^{235}U. AR 22:8070. Neither target material nor spent nuclear fuel is "nuclear waste" because the highly enriched uranium each contains can be recovered for peaceful purposes. However, if not returned to the United States, highly enriched uranium is vulnerable to being diverted to produce nuclear weapons. AR 22:8031-8032.

The disposition of highly enriched uranium thus became a matter of great importance to U.S. nuclear weapons nonproliferation policy. To avoid highly enriched uranium being stockpiled abroad, the United States in 1958 began accepting spent nuclear fuel returned from foreign research reactors. AR 23:9574; 22:8027. This practice evolved by the mid-1960s into the "Off-Site Fuels Policy," under which the United States accepted, temporarily stored, and processed spent nuclear fuel containing U.S.-enriched uranium. AR 22:8027. The Off-Site Fuels Policy expired in 1988 (with respect to highly enriched uranium) and 1992 (with respect to low enriched uranium). AR 23:9575.

The Off-Site Fuels Policy was not immediately renewed because DOE determined it needed to assess the environmental impacts of a new policy regarding the management of spent

[7] Spent nuclear fuel is fuel that has been withdrawn from a nuclear reactor after irradiation, and contains constituent elements that have not been separated by reprocessing. When it is removed from a reactor, spent nuclear fuel contains some unused enriched uranium and radioactive fission products. AR 22:7916; AR 37:11,530.

nuclear fuel in the United States, including the potential return of spent nuclear fuel containing enriched uranium of United States origin from foreign research reactors. While that environmental review took place, only certain "urgent relief" shipments of spent nuclear fuel were accepted into the United States from research reactors, creating storage and safety problems from the stockpiling of spent nuclear fuel at overseas sites. AR 22:8028. *See South Carolina ex rel. Campbell v. O'Leary*, 64 F.3d 892 (4th Cir. 1995); *Contra Costa Cty. v. Pena*, No. C97-3842 FMS, 1998 WL 164966, at *1 (N.D. Cal. Mar. 18, 1998).

B. Environmental reviews for a new policy for returning spent nuclear fuel and target material containing U.S.-origin enriched uranium.

Between 1995 and 2000, DOE issued three EISs, with records of decision, in support of a new policy (the "Acceptance Program") under which DOE would accept shipments of spent nuclear fuel and target material containing U.S.-origin enriched uranium from foreign research reactors over a multi-year period, and manage that enriched uranium in the United States. *See* AR12: 1737 (depicting EISs and other associated environmental reviews).

First, in 1995, DOE published a *Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental and Waste Management Programs EIS* ("SNF & INEL PEIS"), and issued a ROD on May 30, 1995.[8] This EIS analyzed the potential environmental impacts over a 40-year period of alternatives related to the transportation, receipt, processing, and storage of spent nuclear fuel in the United States under the responsibility of DOE. AR 22:8038. As relevant here, the SNF & INEL PEIS formed the basis for deciding, on a programmatic level, which DOE sites would be used for the management of various types of spent nuclear fuel to which DOE holds title, including the amount of foreign research reactor

[8] The five-volume Programmatic SNF & INEL EIS is found at index numbers 11 to 16 in the AR. The ROD is found at index number 17.

nuclear material that might be accepted if a decision were made to accept foreign research reactor fuel. *Id*.; 12:1907, 2020 (explaining that PEIS analyzed the impacts of managing both spent nuclear fuel and target material). In the ROD for the SNF & INEL PEIS, DOE decided to regionalize the management of spent nuclear fuel at three sites, according to fuel type. AR 17:7168. Aluminum-clad spent nuclear fuel and target material would be consolidated at the Savannah River Site. *Id*.

Second, in 1996, DOE and the Department of State jointly issued a Final EIS on a *Proposed Nuclear Weapons Nonproliferation Policy Concerning Foreign Research Reactor Spent Nuclear Fuel* ("FRR FEIS"), and issued a ROD based on that EIS on May 13, 1996.[9] The FRR FEIS was prepared in furtherance of U.S. nuclear weapons nonproliferation policy objectives, through the acceptance and management of spent nuclear fuel (of any enrichment) and target material containing highly enriched uranium, to reduce civilian commerce in weapons-grade nuclear material. AR 22:8034; 23:9575. The FRR FEIS considered the potential environmental effects of alternatives for the transportation, receipt, and storage of about 18.2 metric tons heavy metal (MTHM) of aluminum-clad spent nuclear fuel and about 0.6 MTHM of target material containing enriched uranium of U.S. origin from foreign research reactors, including those located in Canada, for management at the Savannah River Site. AR 22:8034; 23:9576. The FRR FEIS is tiered from the SNF & INEL PEIS. AR 12:1737.[10] The 1996 ROD adopted a modified version of the Preferred Alternative (which became the Acceptance Program) under which the U.S. would accept spent nuclear fuel and target material from foreign research

[9] The FRR FEIS is found at index number 22 in the AR; the ROD is at index number 23.

[10] Under the CEQ regulations, "tiering" refers to the coverage of general matters in a broad, or programmatic, EIS, with a subsequent EIS of narrower scope that, for example, focuses on site-specific impacts, and incorporates by reference general discussions from the programmatic EIS. 40 C.F.R. § 1508.28; *see also* AR 12:1737 (showing programmatic and site-specific EISs).

reactors located in 41 countries, including Canada, for a 10-year period, with shipments of this material accepted into the U.S. over a 13-year period. AR 23:9581. The FRR FEIS was upheld by a U.S. district court against a legal challenge by the State of South Carolina and its governor. *South Carolina ex rel. Beasley v. O'Leary*, 953 F. Supp. 699 (E.D.S.C. 1996). We consider the FRR FEIS in more detail below.

Finally, in 2000, DOE issued the *Savannah River Site Spent Nuclear Fuel Management EI*S ("SRS SNF EIS"), and issued a ROD based on that EIS on July 24, 2000.[11] This EIS was tiered from both the SNF & INEL PEIS and the FRR FEIS. AR 101:26,360. The SRS SNF EIS evaluated alternatives for the management, storage, and disposal of aluminum-clad spent nuclear fuel and target material received at the Savannah River Site from foreign research reactors. AR 37:11537. The ROD based on the SRS SNF EIS adopted a Preferred Alternative involving the use of a new melt-and-dilute technology to manage the majority of the aluminum-clad spent nuclear fuel and target material, and to use conventional processing to stabilize the spent nuclear fuel until a new treatment facility could be constructed. AR 40:12,157.

C. The potential environmental impacts of transportation of target material from Canada evaluated in the FRR FEIS.

In the 1996 FRR FEIS, DOE took a hard look at the potential environmental impacts, including impacts to public health and safety, associated with the transportation of spent nuclear fuel and target material from foreign research reactors to the Savannah River Site. This analysis included disclosure of the characteristics and types of foreign research reactor spent nuclear fuel and target material to be returned and summarized the elements of the alternatives considered in the EIS. AR 22:8042. It also described the marine, port, overland and site environments affected by the proposed transportation of spent nuclear fuel and target material from foreign

[11] The SRS SNF EIS is found at index numbers 37-39 in the AR; the ROD is at index number 40.

research reactors to the Savannah River Site, AR 22:8151, and disclosed the impacts and risks arising from ground transportation, including potential exposure to radiation from incident-free transportation as well as under different accident scenarios. AR 22:8279, 8282, 8306-13. The FRR FEIS included consideration of shipments of target material from the research reactors at the Chalk River facility in Ontario, Canada. AR:8054, 8348, 8573.

Canada is one of a small number of countries whose research reactors use highly enriched uranium of U.S. origin to produce radioisotopes used in medical applications, such as cancer diagnosis and treatment. AR 22:8070, 8574. Canada's reactor produces a large quantity of the radioisotopes used in nuclear medicine in the United States. AR 22:8348. The target material that is the subject of this suit has been stored at the Chalk River facility – in liquid form – but the FRR FEIS anticipated that it would be converted into a solid powder form (calcine or oxide) for transport to the United States. AR 22:8070. This target material – up to 0.6 MTHM under the plan adopted in the FRR FEIS ROD (AR 23:9581) – contains a substantial amount of highly enriched uranium. AR 22:8349.

Transportation of this target material from Canada to the Savannah River Site would be overland, by truck. AR 22:8993. DOE would take title to the target material from Canada at the Canadian/U.S. border. AR 22:8050. The FRR FEIS disclosed that target material, like spent nuclear fuel, would be shipped in large transportation casks. AR 22:8070, 8349, 8576, 8976-77. These casks are certified as "Type B" under the NRC's regulations at 10 C.F.R. Part 71, which in turn conform to IAEA regulations applicable to the shipment of nuclear material. AR 22:8073, 8584. *See, e.g.*, AR 87: 24,986-89 (IAEA requirements for "Type B" casks). The primary function of a transportation cask is to maintain containment and criticality control,[12] and to

[12] "Criticality" refers to the propensity of nuclear material to sustain a nuclear chain reaction under certain conditions. *See* AR 39:12,122; AR 119:26,993.

provide shielding, necessitating the use of heavy, durable materials such as stainless steel and lead. AR 22:8584. *See* AR 118:26,984 (photograph). Transportation casks such as the NAC-LWT model described in Appendix B of the FRR FEIS have been used for years to transport spent nuclear fuel and other nuclear materials within the United States and around the world. AR 22:8073, 8600-01 (describing the design specifications of the NAC-LWT cask).

To obtain certification as a Type B cask, a transportation cask must successfully pass tests simulating severe accident conditions, under conditions that have been internationally accepted as simulating damage to the casks that could occur in reasonably foreseeable accidents. AR 22:8073, 8584. These tests – which are performed in sequence – include the cask being dropped from a height of 30 feet onto an unyielding surface; dropped 40 inches at the cask's most vulnerable point onto a 6-inch diameter steel bar at least 8 inches long, simulating a puncture; subjected to extremely high temperatures (1,475 degrees F) for 30 minutes; and completely submerged under at least 3 feet of water for 8 hours. AR 22:8073, 8584-85. The cumulative effects of the testing on the casks are then evaluated. *See* AR 118:26,986-89 (illustrating and explaining tests in sequence). In 1996, the NRC added a deep immersion test, in which a transportation cask must be completely immersed under 50 feet of water for 8 hours, without collapse, buckling, or allowing water to leak into the cask. AR 22:8585-86, 8977. The FRR FEIS reported that "[t]o date, no spent nuclear fuel transportation cask has ever been punctured or released any of its radioactive contents, even in actual highway accidents." AR 22:8073; *see also id.* at 8584 ("There are no documented cases of a release of radioactive materials from spent nuclear fuel shipments even though thousands of shipments have been made by road, rail, and water transport modes."); AR 57:17,906 (same, in 2004).

While transportation casks are designed to provide shielding from radiation, there is still a low radiation field outside the cask. AR 22:8073. NRC regulations establish an external radiation dose rate for transportation casks containing spent nuclear fuel used in ground transportation of 10 millirem ("mrem") per hour at a distance of 2 meters from the vehicle transporting the cask. AR 22:8282. *See* AR 22:7955 (explaining dose measurements and radiation exposure). DOE noted that historical data from actual cask shipments of research reactor spent nuclear fuel have shown dose rates far below the regulatory limit. AR 22:8282. For casks containing target material, DOE estimated that the maximum dose rate at a distance of 2 meters from the vehicle to be 0.1 mrem per hour, or one one-hundreth the regulatory limit. AR 22:8350. To compare, the FRR FEIS disclosed that the average person in the U.S. receives about 300 mrem per year from natural sources of radiation and another 50 mrem from manmade sources of radiation. AR 22:8434.

The FRR FEIS evaluated the potential health and safety risks to workers and members of the public from exposure to radiation from transportation casks in a number of overland transportation scenarios, including incident-free transport and accident conditions. DOE summarized its risk assessment analysis in Chapter 4 of the FRR FEIS (AR 22:8307-8313), and presented it in detail in Appendix E. AR 22:8973-75. The FRR FEIS applied this analysis to two phases of the proposal: Phase 1, involving initial ground transportation to the Savannah River Site, including overland transportation from Canada; and Phase 2, which included continued management of the enriched uranium at acceptance sites (e.g., the Savannah River Site) and possible subsequent transport of the material to other DOE sites. AR 22:8307.

The risk assessment analysis used in the FRR FEIS involved two steps. First, DOE determined incident-free and accident risk factors, on a per-shipment basis, to workers and

members of the public (assuming one cask per shipment for transportation of spent nuclear fuel and target material). AR 22:8307, 8975. Accident risk factors were calculated for radiological and non-radiological traffic accidents. AR 22:8306-07; 8974-75. Risk factors are the product of both the probability and magnitude of exposure to radiation, and are expressed in units of rem. AR 22:8308, 8975. DOE employed two computer models in conducting this risk assessment for the FRR FEIS: (1) the RADTRAN 4 model, which was developed to calculate population risk associated with the transportation of radioactive materials; and (2) the RISKIND model, which calculates exposure to individuals from incident-free transportation of radioactive material for a given distance, duration, and frequency of exposure, which can then be compared to exposure risks to individuals in accident scenarios. AR 22:8308, 9006-09. Based on risk analysis using these models, DOE determined that about 80 percent of ground transportation doses to the public would occur at truck stops. AR 22:8308.

The second step in the analysis was to use risk factors and the number of shipments to estimate the risk of every possible way the foreign research reactor spent nuclear fuel and target material program could be implemented. AR 22:8308. For shipments of target material from Canada, DOE analyzed representative transportation routes, which included routes between Canada and the Savannah River Site. AR 22:8977, 8993, 8994-99. In doing so, DOE noted that shipments would be subject to DOT regulations, at 49 C.F.R. Part 397, intended to reduce the impacts of transporting radioactive materials through avoidance of populated areas and minimizing travel times. AR 22:8993. The FRR FEIS expressed the results of DOE's risk assessment analysis in terms of additional latent cancer fatalities from the Acceptance Program under both incident-free and accident scenarios. AR 22:8309. DOE estimated that incident-free transportation of the target material would result in total latent cancer fatalities of 0.0002 to

0.003, *i.e*. far less than 1 additional cancer fatality, over the duration of the Program. AR 22:8309, 8350.

The FRR FEIS considered the most severe accident to be a truck or train crash followed by a large fire. In calculating the potential impacts from such an accident, DOE considered that each state and most local jurisdictions had a hazardous materials response capability and a radiological protection program. AR 22:8312. DOE estimated that cumulative transportation accident risks from the transport of target materials ranged from 0.0002 to 0.0054 latent cancer fatalities due to radiation and from 0.0001 to 0.013 for traffic fatalities. AR 22:8350. In assessing the risk to the general public from accidents involving the transportation of target material, the FRR FEIS disclosed that these risks were higher than those associated with spent nuclear fuel alone (*i.e.*, 0.0054 latent cancer fatalities associated with target material versus 0.00028 latent cancer fatalities associated with spent nuclear fuel) because DOE assumed that the target material would be transported in the form of loose oxide powder. AR 22:8349, 8350. 9018. The FRR FEIS disclosed that the maximum foreseeable offsite transportation accident for target material involved a cask shipment of solid material in a suburban population zone, and estimated that risk to be 0.0054 latent cancer fatalities.

D. Extending the foreign research reactor Acceptance Program to 2019.

The Acceptance Program became effective on May 13, 1996, with the issuance of the 1996 ROD. *See* AR 23:9581-85. Over the next eight years, through November 2004, 30 shipments of spent nuclear fuel were accepted into the United States under the Acceptance Program, including two shipments of spent nuclear fuel transported overland from Canada to the Savannah River Site. AR 58:17,918; AR 57:17,887. DOE estimated that these 30 shipments represented only about 35 percent of spent nuclear fuel that had been deemed eligible for acceptance in 1996. AR 57:17,888. No target material was received during this period. *Id*.

With only two years remaining under the original 10-year term, DOE decided to consider extending the Acceptance Program and prepared a Supplement Analysis in November 2004 ("the 2004 SA") to determine whether supplementation of the FRR FEIS was required for the extension. AR 57. The 2004 SA explained that DOE's experience under the Acceptance Program since 1996 had shown that the assumptions in the FRR FEIS had been very conservative with regard to radiological impacts to health and safety of workers and the general public. AR 57:17,889. The 2004 SA provided an updated risk assessment (AR 57:17,895-17,913) that used more recent population data and applied guidance on risk factors that had the effect of making the assessment more conservative still. *See* AR 57:17,902 (explaining that population and latent cancer fatality risk factors were both increased). The 2004 SA concluded that a 10-year extension of the Acceptance Program would not constitute a substantial change requiring the preparation of a supplement to the FRR FEIS. AR 57:17,914.

On December 1, 2004, DOE published a revised Record of Decision for the Acceptance Program that extended the expiration date of the Acceptance Program. AR 58. The period for accepting spent nuclear fuel and target material from foreign research reactors was extended to May 12, 2019. AR 57:17,918-19.[13]

E. Proposal to accept shipments of target material from Canada in liquid form.

In October 2008, the Canadian agency overseeing the production and disposition of medical isotopes in Canadian research reactors, Atomic Energy Canada Limited ("AECL"), sent a letter to DOE explaining that constraints at the Chalk River facility precluded conversion of target material to solid form, as originally analyzed in the FRR FEIS. AR 76. AECL therefore

[13] The revised ROD noted that the continued acceptance of target material would be dependent on the continued operation of the H-Canyon facility at the Savannah River Site. AR 57:17,918. The H-Canyon facility has remained in operation. *See* AR 101:26,364.

sought DOE's collaboration "to assess alternative treatment processes that would permit [target material in liquid form] to be transported to Savannah River for [highly enriched uranium] recovery and/or disposition." *Id*.

DOE agreed to consider the acceptance of target material from AECL in liquid form in a September 2012 contract between the two agencies. AR 97. The contract defines the conditions for DOE's acceptance of approximately 6,000 U.S. gallons of target material in liquid form. AR 97:26,263 (defining "Authorized Material"). The contract provides that DOE's acceptance of target material depends upon completion of series of steps and approvals, which include AECL's submission of detailed information prior to each shipment on a form called "Appendix A," AR 97:26,279-0001, and the issuance of an Authorization to Ship from DOE, indicating DOE's approval of Appendix A and DOE's readiness to safely receive the target material. AR 97:26,264-65.[14] The contract specifies that DOE is under no obligation to accept target material from AECL prior to issuance of an Authorization to Ship. *Id*.

F. The 2013 Supplement Analysis.

DOE issued a Supplement Analysis in March 2013 ("the 2013 SA") to consider whether the transportation of target material from Canada in liquid, rather than solid, form required supplementation of the SNF & INEL PEIS, the FRR FEIS, and the SRS SNF EIS. AR 101.

The 2013 SA explained that the target material is presently maintained at the Chalk River facility in Canada in the form of a uranyl nitrate liquid solution, and would be transported in that form in small tanks within Type B cask certified by NRC. AR 101:26,366-67. *See also* AR 139:27,336 (providing additional detail). Upon arrival at the Savannah River Site, the target

[14] The contract also requires AECL to comply with all international and U.S. federal and state laws and regulatory requirements, including the FRR FEIS and ROD, and a mitigation plan, as well as applicable regulations of Canada and the IAEA and directives of DOE. AR 97:26,266.

material would be stored in an existing tank at the Site's H-Canyon facility until a sufficient quantity was accumulated for efficient processing. AR 101:26,366-67. The 2013 SA disclosed that DOE's acceptance of the material would be contingent on certification of the NAC-LWT cask for the transportation of liquid target materials. AR 101:26,367. Transportation and acceptance of the target material would be further subject to regulatory requirements of the DOT and NRC, DOE approval of Transportation and Security Plans, and an export license from Canada. *Id*.

To support the 2013 SA, DOE prepared a letter report evaluating of the human health effects from transportation of the target material, attached to the SA as Appendix A. AR 101:26,379. The letter report examined in detail the potential risks to public health and safety (both to workers and the general public) from the proposed transportation of target material in liquid form. *See* AR 101:26,388-91. In preparing this analysis, DOE reviewed and updated the risk assessment methodology from the FRR FEIS as applied to the transportation of liquid target material. *See, e.g.*, AR 101:26,383 (describing use of updated version of RADTRAN model (RADTRAN 6) to estimate risks from transportation accidents). DOE also updated population figures to the most recent projections, AR 101:26,384, and employed radiation risk factors from more recent guidance, AR 101:26,386.

The letter report also expressly addressed risks of sabotage and terrorism during and after transport. AR 101:26,370. Here, DOE looked to the analysis of intentional destructive acts involving shipments of spent nuclear fuel in the *Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada* ("Yucca Mountain EIS"). AR 101:26,388. The letter report noted that the quantity of highly enriched uranium in the proposed shipments of liquid

target material would be less than the amount of radioactive material assumed for the shipments of spent nuclear fuel evaluated in the Yucca Mountain EIS. *Id.* DOE therefore concluded that the estimates of risk from an act of sabotage or terrorism involving a shipment of target material in liquid form were "envelop[ed]" by the estimated risks evaluated in the Yucca Mountain EIS. *Id*. *See also* AR 101:26,369.

Based on the letter report, the 2013 SA concluded that the potential impacts of transporting the target material in liquid form would not be significantly different from the potential risks DOE evaluated in the FRR FEIS. AR 101:26,371. Accordingly, DOE determined that, contingent on the approval of the casks to transport the liquid target material, the proposal to accept the target material from Canada in liquid form did not require a supplemental EIS or new EIS. AR 101:26,371-72.

DOE reached the same conclusion with respect to a second change it examined in the 2013 SA. In addition to the change to accepting target material in liquid form, DOE evaluated a proposal to use conventional processing at the Savannah River Site's H-Canyon facility to separate the highly enriched uranium from up to 3.3 MTHM of aluminum-clad spent nuclear fuel and target material for subsequent downblending. AR 101:26,365. Although this proposal was a change from the melt-and-dilute technology selected in the 2000 ROD, AR 101:26,363, DOE had analyzed the impacts of using conventional processing on up to 28.6 MTHM in the SRS SNF EIS, and DOE found that the potential impacts of conventional processing as proposed "would not exceed those described" previously. AR 101:26,371. DOE concluded that no supplemental EIS or new EIS was required for this change. AR 101:26,372. On March 29, 2013, DOE issued an amended Record of Decision based on the analysis in the 2013 SA. AR 103.

G. Cask certification and the 2015 Supplement Analysis.

DOE's analysis in the 2013 SA was contingent upon regulatory certifications being issued by the NRC, DOT, and CNSC. AR 101:26,367. Certification would involve two steps. First, a specialized liquid-holding container had to be developed for the target material. This specialized canister (known as the HEUNL container) would have to fit into the unmodified transportation cask proposed for these shipments – the NAC-LWT. Second, the transportation package as a whole (the cask plus its contents) had to be approved by NRC, DOT, and the CNSC. At the time of the 2013 amended ROD, the transportation cask vendor, NAC International ("NAC"), had proposed a Certificate of Compliance amendment for the NAC-LWT cask to enable the placement of four liquid-holding HEUNL containers, each with a capacity of 15.35 gallons, into the cavity of the cask. *See* AR 108, and parts 1-5; AR 133:27,224 (depicting a HEUNL container); AR 139:27,336, 27,341.

The required regulatory approvals were completed in 2014 and 2015. At the end of 2014, the NRC issued a revised Certificate of Compliance for the NAC-LWT transportation package indicating it met the applicable safety standards in 10 C.F.R. Part 71. AR 121:27,047. The certificate was accompanied by an NRC Safety Evaluation Report explaining that the NAC-LWT transportation package had satisfied all of the tests required for certification under the Part 71 regulations. *See* AR 122. The DOT issued a Competent Authority Certification based on the NRC certification on January 29, 2015, representing that the NAC-LWT transportation package met the U.S. and IAEA requirements for Type B packaging. AR 124:27,108-09. The same sequence proceeded in parallel in Canada. At the end of 2014, the CNSC concluded its own, independent analysis, and it, too, determined that the transportation package met all regulatory requirements. AR 118:26,981. On July 10, 2015, the CNSC issued a certificate endorsing the

revised package design, under Canadian and IAEA regulations, for the transportation of liquid target material. AR 134:27,225-27.

DOE issued a Supplement Analysis in 2015 ("the 2015 SA") to disclose and review the U.S. and Canadian regulatory approvals, which had been presumed for purposes of the analysis in the 2013 SA. AR 139:27,338. DOE considered not only the certifications themselves, but also the procedures followed by the NRC and the CNSC in preparing the reports on which the certifications were based. AR 139:27,345-51. DOE compared the Canadian Technical Assessment Report with letter report attached to the 2013 SA and found that its 2013 SA was supported by and more conservative than the Canadian analysis. AR 139:27,351-352. Further, as to the receipt, storage, and processing of the target material, DOE found nothing "that would indicate a need to re-assess" the conclusions about associated impacts in the 2013 SA. AR 139:27,353. The 2015 SA thus confirmed the determination in the 2013 SA that the impacts associated with transporting target material in liquid form "would be very low and not significantly different from the impacts reported in the [FRR FEIS]." AR 139:27,353. DOE again concluded that a supplemental or new EIS was not required. AR 139:27,354.

On August 17, 2016, Plaintiffs filed the operative complaint in this action to enjoin the shipments of liquid target material from Canada, invoking the court's jurisdiction under the APA. *See* Amended Complaint ("Compl.") ¶¶ 1, 8 (ECF 4). DOE agreed to postpone shipments through mid-February 2017 in order to allow for expedited resolution of this case on the merits. *See* Joint Mot. for Scheduling Order 2 (ECF 9).

IV. STANDARD AND SCOPE OF REVIEW

Plaintiffs' claims are governed by the APA's standard of review. *See Lujan v. Nat'l Wildlife Fed'n*, 497 U.S. 871, 882–83 (1990) (judicial review of agency action proceeds under

APA where statute at issue does not provide cause of action); *Theodore Roosevelt I*, 616 F.3d at 507 (APA "supplies the applicable vehicle for review" of agency action under NEPA).

Under the APA, an agency action must be upheld unless it is 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2). "The scope of review under the 'arbitrary and capricious' standard is narrow[,] and a court is not to substitute its judgment for that of the agency." *New York v. U.S. Nuclear Regulatory Comm'n*, 824 F.3d 1012, 1023 (D.C. Cir. 2016) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983)). The court considers only "whether the agency's decision making was reasoned," that is, "whether it considered relevant factors and explained the facts and policy concerns on which it relied, and whether those facts have some basis in the record." *Davis v. Latschar*, 202 F.3d 359, 365 (D.C. Cir. 2000) (internal quotation marks and citation omitted).

In reviewing an agency's factual determinations relevant to the decision whether to prepare NEPA documentation, a court must employ the arbitrary and capricious standard, and afford deference when the factual dispute implicates agency expertise. *Marsh*, 490 U.S. at 375-78. Further, "[t]o the extent that [an agency's] technical judgments and predictions are before the court for review," the court "'must generally be at [its] most deferential.'" *Blue Ridge*, 716 F.3d at 195 (quoting *Balt. Gas & Elec. Co.*, 462 U.S. at 103). "Agency deference is especially important in the context of the review of scientific decisions made by highly regulated federal agencies (such as the DOE)." *Hirt v. Richardson*, 127 F. Supp. 2d 833, 838 (W.D. Mich. 1999).

District courts in this circuit use summary judgment "as the mechanism for deciding, as a matter of law, whether the agency action is supported by the administrative record and otherwise consistent with the APA standard of review." *Oceana, Inc. v. Pritzker*, 24 F. Supp. 3d 49, 60 (D.D.C. 2014) (citation omitted).

V. ARGUMENT

A. DOE Fully Complied with NEPA.

The only appropriate NEPA question in this case is whether DOE reasonably determined that the modifications adopted in the 2013 amended ROD did not require a supplemental EIS. The answer to that question is "yes": DOE evaluated the potential environmental impacts of the modifications in the 2013 Supplement Analysis and again in the 2015 Supplement Analysis and in both instances, based on its technical expertise, concluded that the a supplemental EIS was not warranted because the potential impacts were not significantly different from the impacts DOE analyzed in the prior EISs. AR 101:26,371-72; AR 139:27,353-54. Plaintiffs are precluded from challenging those prior EISs, because the RODs based upon them fall outside the six-year statute of limitations in 28 U.S.C. § 2401(a). *Chem. Weapons Working Grp., Inc., v. U.S. Dep't of the Army*, 111 F.3d 1485, 1495 (10th Cir. 1997) (citing *Sierra Club v. Penfold*, 857 F.2d 1307, 1315 (9th Cir. 1988)). *See also Daingerfield Island Protective Soc'y v. Lujan*, 797 F. Supp. 25, 28 (D.D.C. 1992), *aff'd* 40 F.3d 442, 445 (D.C. Cir. 1994). Plaintiffs are also precluded from making broad programmatic attacks on DOE's implementation of the program and policy choices selected in those RODs. *See Norton*, 542 U.S. at 64; *Vill. of Bald Head Island v. U.S. Army Corps of Engr's*, 714 F.3d 186, 193-94 (4th Cir. 2013) (project implementation after a decision is not reviewable final agency action). The only issue Plaintiffs may raise at this late juncture is the narrow issue of NEPA supplementation, and DOE is entitled to deference in its determination that a supplemental EIS was not required.

In apparent recognition that DOE's determination on supplementation was reasonable, and warrants substantial deference, *Blue Ridge*, 716 F.3d at 195, Plaintiffs attempt to deflect attention away from the supplementation issue in their complaint with a sequence of misguided arguments that DOE should have prepared an EA (Count 1), EIS (Count 2), or Programmatic

EIS (Count 3), as though the agency were writing on blank slate. It was not. DOE's NEPA obligations concerning the return of the Canadian target material cannot be divorced from the analysis of the impacts in the SNF & INEL PEIS, FRR FEIS, and SRS SNF EIS. Plaintiffs' underlying disagreement with DOE's decision to accept this material does not mean Plaintiffs can ignore they environmental review associated with it for purposes of a NEPA challenge.

Plaintiffs' NEPA causes of action fail to state a claim or otherwise lack merit when viewed against the record. As detailed below, NEPA did not require DOE to prepare an EA because DOE uses the Supplement Analysis procedure to determine the need for a supplemental EIS (Part V.A.1); DOE reasonably determined the modifications in the 2013 amended ROD did not require a supplemental EIS (Part V.A.2.a) and were not a new proposal for major federal action triggering the requirement to prepare a new EIS (or EA to determine whether to prepare a new EIS) (Part V.A.2.b); and NEPA did not require DOE to prepare a new programmatic EIS on the basis of developments concerning Indonesia and Germany (Part V.A.3). Defendants should therefore be granted summary judgment on Plaintiffs' first, second, and third causes of action.

1. DOE properly used a Supplement Analysis and not an EA to determine whether a supplemental EIS was warranted.

DOE correctly invoked its Supplement Analysis procedure, and did not prepare an EA, to address the modifications approved in the 2013 amended ROD. Because DOE extensively analyzed the impacts of accepting Canadian target material in the SNF&INEL PEIS, FRR FEIS, and SRS SNF EIS, the NEPA question that DOE decided in 2013 was whether a supplemental EIS was needed to analyze the impacts associated with the proposed modifications, consistent with 10 C.F.R. § 1021.314 and 40 C.F.R. § 1502.9(c)(1). *See In re Operation of Mo. River Sys. Litig.*, 516 F.3d 688, 693 (8th Cir. 2008) (holding that supplementation was "the relevant issue" where agency made modifications to operations manual supported by prior EIS); *Vill. of Grand*

View v. Skinner, 947 F.2d 651, 656 (2d Cir. 1991) (holding that agency's NEPA obligation for changes in highway project covered by earlier EIS "should be considered in terms of the need for an SEIS"); *see also Wisconsin v. Weinberger*, 745 F.2d 412, 418 (7th Cir. 1984) (explaining that an agency prepares a supplemental EIS where there is "an already existing, in-depth review of the likely environmental consequences of the proposed action"), cited with approval in *City of Olmsted Falls v. FAA*, 292 F.3d 261, 274 (D.C. Cir. 2002). DOE regulations direct the agency to prepare a Supplement Analysis – not an EA – to determine whether a supplemental EIS is needed. 10 C.F.R. § 1021.314(c). DOE complied with its regulations.

Plaintiffs' suggestion that NEPA required an EA rather than a Supplement Analysis fails as a matter of law. *See, e.g.*, Compl. ¶ 66. "[T]here is no requirement that [an] agency use an EA to determine if a supplemental EIS is needed." *Del. Dep't of Nat. Res. & Envtl. Control v. U.S. Army Corps of Engr's*, 685 F.3d 259, 270 n.11 (3d Cir. 2012). An agency may use any procedure it likes to address whether supplementation is required, subject to the general constraints of reasonableness and consistency with NEPA and the CEQ regulations. *See, e.g.*, *Marsh*, 490 U.S. at 385 (holding Army Corps' "Supplemental Information Report" properly explained decision for not preparing supplemental EIS); *Hodges*, 300 F.3d at 439, 446 (discussing 10 C.F.R. § 1021.314 and upholding DOE's use of an SA). Plaintiffs have not stated a claim that DOE's Supplement Analysis regulations are inconsistent with NEPA, and are therefore precluded from arguing as much here.

Because the only issue in this case is whether a supplemental EIS was required, DOE properly invoked its Supplement Analysis procedure and was not required to prepare an EA.

2. DOE's determination that a new or supplemental EIS was not required is entitled to deference.

In its two Supplement Analyses, DOE concluded it did not need to prepare a supplemental EIS or new EIS to analyze the impacts of accepting the Canadian target material in liquid form rather than solid, or using conventional processing rather than melt-and-dilute technology. AR 101:26,371-72; AR 139:27,354. *See* Part III.F and Part III.G, *supra*. Because these conclusions are based on DOE's application of its expertise to evaluate highly technical data and risk-assessment modeling, DOE's determination not to prepare a supplemental or new EIS is entitled to "an extreme degree of deference." *Nat'l Comm. for the New River v. F.E.R.C.*, 373 F.3d 1323, 1327 (D.C. Cir. 2004). Plaintiffs' second count does not identify any potential impact associated with the modifications that DOE failed to consider in its review.

a. DOE's conclusion that the modifications did not warrant a supplemental EIS was adequately explained and supported by the record.

The only NEPA issue properly before DOE, and now before the Court, is whether a supplemental EIS was needed. In their 93-paragraph complaint, Plaintiffs' only allegation touching on the need for a supplemental EIS reads as follows:

> *Failure to evaluate alternatives, such as solidification prior to shipment, down-blending to eliminate HEU content, long-term storage on-site at Chalk River, or permanent disposal in Canada*. The agreed change between the two governments of the disposition plans more than a decade after the shipment of solid unirradiated HEU to Canada, itself, comprises a significant change which merits a supplemental EIS. There is a serious question whether the decision to return the liquid highly radioactive waste to the U.S. is prompted by the economics of keeping DOE's aging "H" nuclear processing canyon at SRS open for business by insisting upon return of HEU-bearing radioactive wastes from countries which pose no proliferation concerns.

Compl. 39 (¶ 76, bullet 4). This amalgamation of incomplete thoughts does not actually plead a claim. For one, DOE has no obligation to "evaluate alternatives" when deciding *whether* to

prepare a supplemental EIS; the supplemental EIS is the vehicle for evaluating alternatives. However, giving a broad construction to this allegation, and in the interest of facilitating expedited summary judgment, Defendants will address the potential allegation that the decision to proceed with returning Canadian target material in liquid form required a supplemental EIS, as if Plaintiffs had pleaded such an allegation properly.

First, we begin with Plaintiffs' implication in the paragraph that the "decision to return" the Canadian target material (in any form) somehow constituted a "change" in the "disposition plans" for that material. That implication is plainly incorrect. Returning the target material to the United States was one of the actions called for in the 1996 ROD, and it was analyzed in detail in the FRR FEIS, *see* AR 23:9578; Part III.C, *supra*. The passage of time between the 1996 ROD and 2013 amended ROD did not reflect a new "plan" to keep the material in Canada, as Plaintiffs seem to be alleging. DOE anticipated that it would take many years to successfully return spent nuclear fuel and target material from foreign research reactors—initially setting a deadline in 2009, AR 23:9576, then extending that deadline to May 12, 2019. AR 58:17,919. The extension to 2019 reflects that DOE was *not* content to have covered target material remain outside the United States. AR 58:17,918; *see* Part III.D, *supra*.[15] DOE's decision to proceed with "the return" of the Canadian target material in 2013 was within the parameters of its existing Acceptance Program. It was not a change at all, much less a "substantial change" requiring a supplemental EIS under 10 C.F.R. § 1021.314(a).

[15] Plaintiffs' allegation that the decision to return the target material was motivated by "the economics" of the H-Canyon facility is unsupported and irrelevant. *See* Compl. ¶ 76, bullet 4. DOE's reasons for choosing one course of action over another are beyond the scope of NEPA. In any event, the record shows that DOE initiated the process for returning the target material when AECL indicated that operational and radiation safety issues precluded the solidification of the target material that is the subject of this lawsuit. AR 76:24,238. Plaintiffs' allegation the decision was driven by a desire to keep the H-Canyon "open for business" has no support in the record.

Plaintiffs' alternate theory that DOE should have considered "downblending . . . in Canada" fails to state a claim for the same reason. There was never a plan for the target material to be downblended in Canada prior to shipment, such that DOE's decision to accept the target material without downblending constituted a "change" in the proposed action. To the extent that Plaintiffs are alleging there were "significant new circumstances or information" about downblending that required supplementation under 10 C.F.R. § 1021.314(a), that allegation would fail as well. Plaintiffs cite only two possible pieces of information that could support such a claim, and neither does upon closer inspection. A supplemental EIS is "only required where new information 'provides a *seriously* different picture of the environmental landscape.'" *Nat'l Comm. for the New River*, 373 F.3d at 1330 (quoting *Olmsted Falls*, 292 F.3d at 274). The 2011 Canadian report that Plaintiffs cite merely expressed generic support for downblending and intent to construct facilities to accommodate it. Compl. ¶ 38. Plaintiffs do not allege that the report presented new information about environmental impacts. Similarly, DOE's 2016 decision to accept downblended target material from Indonesia concerns only the feasibility of downblending in that country – not the impacts of accepting target material from Canada that has not been downblended. *Id.* ¶ 40. *See also* Part V.A.3 (addressing factual issues with Indonesia comparison). The fact that downblending target material is feasible in some places, and may someday be feasible in Canada, does not trigger the need for a supplemental EIS because it says nothing about the environmental impacts of DOE's proposal to accept the target material from Canada under the 2013 amended ROD.

The only actual "change" that Plaintiffs identify as a basis for supplementation is DOE's decision to forego "solidification prior to shipment," Compl. 39—that is, DOE's decision to accept the target material from Canada in liquid form. DOE agrees that this decision marked a

change from the original proposal to receive the shipments in a solid powder form. However, the need for a supplemental EIS "is determined not by the modification [to a proposal] in the abstract, but rather by the significance of the environmental effects of the changes." *Pub. Emps. for Envtl. Responsibility v. U.S. Dep't of the Interior*, 832 F.Supp.2d 5, 29–30 (D.D.C. 2011). Under NEPA, "only those changes that cause effects which are significantly different from those already studied require supplementary consideration." *Davis v. Latschar*, 83 F.Supp.2d 1, 9 (D.D.C. 1998) (citation and internal quotation marks omitted), *aff'd*, 202 F.3d 359. Here, DOE found that, "due to the transportation and safety measures to be used, the potential impacts of transporting target materials from Canada in liquid form . . . would not be significantly different from those analyzed in the [1996] FRR EIS." AR 101:26,371. DOE therefore determined that a supplemental EIS was not required.

DOE's decision not to prepare a supplemental EIS for the change to liquid form is subject to the "rule of reason," *Marsh*, 490 U.S. at 373, and the APA's deferential arbitrary and capricious standard, *id*. at 375-78. DOE's analysis easily clears both thresholds. DOE prepared the 2013 SA to evaluate the proposal, AR 101, and it prepared the 2015 SA to review the findings made in the regulatory approvals of the modified NAC-LWT transportation package, AR 139. In reviewing those certifications, DOE found that the 2013 SA's conclusions were amply supported and, if anything, overstated the risks of certain impacts. AR 139:27,348 (table showing U.S. approach was "more conservative" than that of Canadian regulators). The 2015 SA thus confirmed the 2013 SA's conclusion that that the potential impacts associated with transporting the material in liquid form "would not significantly differ from the impacts reported in the [FRR FEIS] and would be expected to result in no radiological or non-radiological fatalities." AR 101:26,371-72.

Plaintiffs would apparently dispute this conclusion, if their wish list of new NEPA considerations in the complaint is any guide. *See* Compl. ¶ 76. However, only a few of the allegations in this paragraph actually concern the impacts associated with the *change* to accept the target material in a liquid form. DOE properly addressed those concerns:

1. "Possible lack of viability of federal regulations" (Compl. 38). DOE determined that federal regulations provide adequate safeguards for the transportation of target material overland by truck, from Canada to the United States. AR 101:26,381-382; AR 139:27,338-344. Plaintiffs offer no support for their suggestion that federal regulations may not be "viab[le]" for "transporting and importing" target material in liquid form. Compl. 38. Existing federal regulations governing the transportation of radioactive materials apply to all types of material, regardless of physical form, so long as the material is covered by a license. *See* 10 C.F.R. § 71.5 (NRC regulations for transporting radioactive materials); *see also, e.g.,* 49 C.F.R. § 173.435 (DOT regulation governing transportation of molybdenum-99, which is a liquid).[16] DOE's reliance upon the existing, extensive regulatory framework in its analysis of environmental impacts was reasonable.

2. "Potentially inadequate design of current casks for use" (Compl. 39). The NAC-LWT cask has been used for decades to transport nuclear materials in solid and gaseous forms and has undergone numerous regulatory reviews. AR 22:8073; AR 139:27,342. The cask can accommodate canisters of target material in liquid form, and that transportation package as a whole was evaluated by NRC and the CNSC consistent with IAEA regulations. *See* AR 122 (NRC Safety Evaluation Report); AR 124 (NRC certificate); AR 118 (Canadian Technical

[16] DOT regulations also apply to radioactive gases such as uranium hexafluoride, *see* 49 C.F.R. § 173.420, and hazardous radioactive materials such, such as deuterium and tritium, which are transported as liquids or gases, *id.* §§ 172.101, 173.425.

Assessment Report); AR 135 (CNSC certificate). DOE properly relied on the certificates of compliance issued by those regulators when it determined that the potential impacts of transporting liquid target material would not be significantly different from the impacts analyzed in the FRR FEIS. *See* AR 101:26,380 (analysis contingent on certification). *See also* AR 139:27,348-50. The approvals of the transportation package, and by extension DOE's reliance on those approvals, are technical judgments entitled to significant deference. *See, e.g.*, *Lorion v. U.S. Nuclear Regulatory Comm'n*, 785 F.2d 1038, 1043 (D.C. Cir. 1986) (affording NRC's assessment of "[t]he susceptibility of steel reactor vessels to pressurized thermal shock" the "highest level of deference").

Plaintiffs do not offer anything close to what would be required to disturb the conclusions of the NRC, an internationally recognized authority. Plaintiffs' allegation, at Compl. 39, that the NRC certification procedure "merely relies on the capabilities of existing casks" is simply false: NRC examined the casks as a package including the containers of liquid target material. *See* AR 122. Plaintiffs also allege that an incident in late 2015 involving a fuel basket (referred to as a caddy) shows "[t]hat there are quality assurance concerns with NAC equipment" which have "heighten[ed] Plaintiffs' concerns" about equipment made by NAC. Compl. 39-40. But a caddy is not used to transport liquid target material. *See* AR 139:27,336 (describing the inner containers used for liquid target material). This entirely unrelated incident did not reveal any significant new information about environmental impacts associated with the NAC-LWT transportation package that DOE failed to consider previously. *See Marsh*, 490 U.S. at 374.

A court may "only overturn the [NRC's] decision" on a novel technical issue if the decision is "completely unsupported by the record." *Lorion*, 785 F.2d at 1043. That is not the

case here. The record supports DOE's reliance on the NRC certification of the NAC-LWT transportation package.

3. "Insufficient examination of accident scenarios" (Compl. 39). Plaintiffs' suggestion that DOE "trivialized" accident scenarios does not withstand scrutiny. Compl. 39. Contrary to Plaintiffs' allegation in this paragraph, DOE evaluated accidents considering that the material would be in liquid form. *See* AR101:26,388 (explaining that "[r]adiological consequences were calculated by assigning radionuclide release fractions" that "represent[ed] *a liquid* being transported in a Type B cask ") (emphasis added). *See also* AR 101:26,385 (radionuclide inventory for liquid target material). DOE's risk analysis considered these release fractions and applied the most recent accident-risk model (RADTRAN 6) to the analysis previously conducted in the FRR FEIS. AR 101:26,383, 26,388-89. DOE concluded that even the maximum reasonably foreseeable accident scenario would not lead to a fatality. AR 101:26,390-91. Further, DOE found that "[t]he per-shipment accident risk" associated with transporting target material in liquid form "is about 100 times less than transporting spent nuclear fuel," which was the assumption used to evaluate impacts in the FRR FEIS. AR 101:26,390. DOE thus amply supported its conclusion that "the overall impacts of transporting liquid [target material] are very small and are less than those described in the FRR FEIS." AR 101:26,368. *See also* AR 139:27,351-53 (confirming analysis). *See* Parts III.F and III.G, *supra*.

The fact that there are "no precedential" shipments of target material in liquid form does not change the requirements of NEPA, or the scope of review under the APA. Compl. 39. As the D.C. Circuit recently confirmed, in a case involving the storage of spent nuclear fuel, an agency may properly rely upon "predictive judgments" and "incomplete data," and those

judgments remain "entitled to deference." *New York*, 824 F.3d at 1022 (internal quotation marks, citations, and brackets omitted).

Moreover, the conjectural scenarios in Plaintiffs' complaint were considered and appropriately dismissed by DOE. For example, Plaintiffs speculate that transporting liquid may "increase the chances of nuclear criticality" in an accident because "[e]vaporation of water . . . may concentrate the radioactive material," Compl. 38), but NRC's safety evaluation report specifically found that contents of the cask "will not boil" in an accident involving a fire, AR 122:27,089. NRC also verified that the transportation package posed no risk of criticality, even in accident scenarios, in accordance with applicable regulations in 10 C.F.R. Part 71. AR 122:27,094-102. DOE incorporated these NRC analyses by reference. AR 101:26,382 (analysis contingent on NRC certification); AR 139:27,345-346 (describing NRC certification and finding that "casks would maintain in a sub-critical condition under both normal and hypothetical accident conditions of transport").

Plaintiffs' other speculative allegations fare no better. Plaintiffs contend, for example, that DOE failed to consider the risks and impacts of accidents in "adverse weather circumstances," Comp. 39, but the shipments will not be initiated when there are adverse weather circumstances. AR 125:27,150 (confirming that "[n]o transport vehicle will be dispatched from the U.S. [Port of Entry] when severe weather conditions or adverse road conditions exist in the immediate area or along the route that could significantly increase transportation risks."). DOE analyzed the impacts of transportation in "neutral" conditions, which are the most common, and "stable" conditions, AR 101:26,390-91, in which a release would have the maximum foreseeable consequences because winds would not dilute the released material *See* AR 101:26,387s-88; AR 22:9018-19.

DOE also found there was no credible risk of a "perforation caus[ing] breach or leakage," Compl. 39, because the NAC-LWT cask is clad in a foot-thick sandwich of steel and lead, must withstand a puncture test to earn certification, and was thoroughly evaluated for leaks. *See* AR 122:27,090-99; AR 139:27,340, 27,347. *See* also AR 139:27,350 (noting that the CNSC assessed the risk of a leak as non-credible, even without considering the extra protection afforded by the inner containers). Further, although there is no credible risk of perforation or leakage, DOE considered the potential impacts that could be associated with such an event, by reference to the findings in the Yucca Mountain EIS, which reviewed the potential impacts of a release from the contents of a cask in a sabotage incident. AR 101:26,388 (finding impacts would be "enveloped" by those analyzed in Yucca Mountain EIS); AR 139:27,353 (confirming 2013 SA). *See* AR 45:13,441. DOE noted the CNSC's finding that the security measures for the shipments would limit the impacts of a severe accident. AR 139:27,349. *See also* AR 139:27,343 (training sessions), 27,352 (describing physical security requirements, including armed escorts). DOE's examination of accident scenarios in the 2013 and 2015 SAs was thus more than adequate to discharge the agency's NEPA obligations. *See Hodges*, 300 F.3d at 447-48 (finding DOE SA's comparison of impacts of change with impacts analyzed in prior EIS was sufficient).

4. "Lack of Analysis of Terrorist Attacks and Their Impacts" (Compl. 40). DOE addressed the potential impacts of terrorist attacks in the FRR FEIS and again in the 2013 and 2015 SAs. *See* AR 22:8136, 8910-14 (finding low probability of attack or sabotage); AR 101:26,388; AR 139:27,352-353. In the 2013 SA, DOE explained that although it could not quantify the risk of an attack, it would assume a terrorist attack took the form of the maximum reasonably foreseeable accident scenario, for purposes of assessing environmental impacts, and DOE incorporated by reference the assessment it had made in the Yucca Mountain EIS. *See* AR

101:26,369-70, 26,388. This approach was reasonable. *See, e.g., also Blue Ridge*, 716 F.3d at 183, 197 (upholding NRC's decision not to prepare a supplemental EIS because NRC had previously considered the types of harm that occurred as a result of the Fukushima accident in Japan); *Hodges*, 300 F.3d at 447 (upholding a Supplement Analysis that incorporated by reference and compared new information to an earlier EIS). *See also Contra Costa*, 1998 WL 164966, at *8 (in the FRR FEIS, "DOE's decision not to quantify the risk that [terrorist] events would occur was reasonable" in light of DOE's "detailed description of the potential consequences of deliberate attacks on an SNF shipment").

Plaintiffs' complaint does not identify any new information about the potential environmental impacts of terrorist attacks that calls DOE's analysis into question. Plaintiffs only offer a speculative allegation that a terrorist attack involving target material in liquid solution "raises ominous prospects of radioactively 'dirtier' accident scenarios" than an accident involving target material in solid form. Compl. 40. But Plaintiffs do not say why that would be the case. Plaintiffs cannot meet their burden under NEPA and the APA with unsupported speculation. *See, e.g., Public Emps. for Envtl. Responsibility*, 832 F. Supp. 2d at 29 (rejecting plaintiff's argument that supplemental EIS was required because Park Service decision "could" have impacts on desert tortoise, as that argument was "based on speculation").

By way of illustration, Plaintiffs refer to the "obvious difference" between liquid and solid forms, Compl. ¶ 55, but offer nothing more than their own speculation about how the difference in form might lead to a difference in *impacts* from those DOE previously considered in the FRR FEIS. Among other things, Plaintiffs conveniently ignore that the solid target material would have been in a powder (calcine or oxide) that presents risks of dispersal. AR 22:9018. The solid form was thus found to present accident risks higher than those

associated with transporting spent nuclear fuel, AR 22:8350, whereas the 2013 SA found that the accident risks associated with the liquid form would be *100 times less* than those associated with spent nuclear fuel, AR 101:26,390.[17]

Beyond their concerns about federal regulations, cask design, and accident and terrorism scenarios, which DOE addressed, Plaintiffs' "nonexclusive" list of deficiencies in paragraph 76 offers no other basis for consideration of a supplemental EIS. These allegations do not bear on the need for a supplemental EIS because they do not describe "substantial changes" or "significant new circumstances or information relevant to environmental concerns" that DOE did not already consider. 10 C.F.R. § 1021.314(a). *See Marsh*, 490 U.S. at 374.

For example, Plaintiffs' unsupported allegation that there are "undisclosed shipment route scenarios" and missing mitigation plans (Compl. 38-39) does not refer to new information and to the extent it is an attack on the adequacy of the analysis in the FRR FEIS, *see, e.g.*, AR 22:8080-82, the claim is time-barred under 28 U.S.C. § 2401(a). There was no reason for DOE to re-examine the issue of route scenarios in a supplemental EIS because the specific routing scenarios for the shipments are consistent with the parameters identified in the FRR FEIS. AR 138:27,295; 27,314. *See Contra Costa*, 1998 WL 164966 at *8 (holding supplemental EIS was not needed to address "route-specific risks" such as potential contamination of water bodies, because FRR FEIS "includes an extensive assessment of potential impacts" associated with route selection) (citing Appendix E, FRR FEIS).

[17] In fact, the risk of criticality and other radiological impacts are lower for any given shipment of the liquid target material solution than for the solid form analyzed in the FRR EIS because each shipment of four canisters of liquid solution will contain 1.72 kilograms of highly enriched uranium, AR 122:27,096, whereas each shipment of the solid form would have contained 4.8 kilograms of highly enriched uranium (based on 24 containers per cask, each container holding 200 grams of ^{235}U), *see* AR 22:8576.

Plaintiffs also allege that DOE failed to provide a "thorough characterization" of radiation exposure to workers and members of the public (Comp. 41-42), notwithstanding the detailed analysis devoted to this very issue in the FRR FEIS. *See* AR 22:8309-14, 8343, 8350, 8357-58, 8374, 8395, 8397, 8402-03, 8412, 9049-50, 9062, 9072-73, 9094-98. DOE's 2013 and 2015 SAs confirmed that the dose estimates to transportation workers and the public were within the range considered in the FRR FEIS. AR 101:26,391; AR 139:27,348.[18] Plaintiffs' allegations about radiation exposure are not connected to any change or new information.

Plaintiffs' wide-ranging concerns about the Savannah River Site (Compl. 40-42) are time-barred and fail to point to new information or changes about impacts DOE has not previously considered. The environmental impacts of managing spent nuclear fuel and target material at the Savannah River Site were analyzed in the 1995, 1996, and 2000 EISs, *see, e.g.*, AR 22:8099-100, and DOE considered the impacts of conventional processing in the H-Canyon in the SRS SNF EIS, albeit under an alternative that was rejected at the time. *See* AR 101:26,363; AR 40:12,156. DOE did not need to prepare a supplemental EIS on these issues. *See In re Mo. River Sys.*, 516 F.3d at 693–94 ("[A]n agency's decision to select a previously rejected alternative is not a substantial change requiring an SEIS if the relevant environmental impacts have already been considered[.]") (citation and internal quotation marks omitted).

Plaintiffs' parting shot is that DOE should be required to conduct an "overall economic audit" to determine the cost to taxpayers for "the program as a whole" and to examine "liability arrangements." Compl. 42. This allegation does not present any new information. It is simply another attempt by Plaintiffs to inject improper policy considerations into their NEPA claims.

[18] Contrary to Plaintiffs' speculative allegations, Compl. 42, there is no chance that a breach in a 24-ton cask made of stainless steel and lead would go unnoticed, and it is impossible to "accidentally" open the 11.3-inch-thick lid bolted to such a cask. *See* AR 122:27,092; AR 118: 26,983-84. *See also* AR 132 (photographs of cask).

"[C]ourts are not free to reject" an agency's NEPA analysis "because [the] agency refuses to change its policy." *O'Leary*, 64 F.3d at 900.

DOE's determination that a supplemental EIS was not required was consistent with NEPA and supported by the record. Plaintiffs have not identified any potential impacts associated with the transportation of target material in liquid form that DOE did not consider in its earlier EISs, nor have they shown there are "significant *new* circumstances or information relevant to environment concerns" that require a supplemental EIS on any other issue. 10 C.F.R. § 1021.314(a) (emphasis added).

b. The 2013 amended ROD was not a new "major Federal action" requiring a new EIS.

The dispute presented by Plaintiffs' complaint concerns the need for a supplemental EIS. Plaintiffs mischaracterize NEPA when they allege that a new EIS was required (or, by extension, a new EA to determine whether to prepare a new EIS). *E.g.* Compl. ¶ 67. Although NEPA requires an EIS for every proposal for a "major Federal action[ ] significantly affecting the quality of the human environment," 42 U.S.C. § 4332(2)(C), NEPA does not require an agency to duplicate that effort every time it takes a step to implement a previously analyzed program. The general rule is that "if an EIS prepared for a whole program contains a reasonable, good faith discussion of each [NEPA consideration] applicable to future actions contemplated in order to implement the program, th[en] no separate or supplemental EIS will be required for each future component action[.]" *Envtl. Def. Fund, Inc. v. Andrus*, 619 F.2d 1368, 1377 (10th Cir. 1980), *cited with approval in Friends of the River v. FERC*, 720 F.2d 93, 107 n.30 (D.C. Cir. 1983). If the agency has analyzed the potential effects of the component action in the environmental impact statement for the program as a whole, no new EIS is required.

DOE's decision to move forward with accepting target material from Canada was not a new "major Federal action" requiring a new EIS. The decision merely implements the Acceptance Program that DOE approved two decades earlier and supported with three EISs. Because those existing EISs analyzed the potential impacts of accepting the Canadian target material – including the impacts of transporting, managing, storing, processing, and downblending that material – the only question is whether the modifications to the Acceptance Program reflected in the 2013 amended ROD required a *supplemental* EIS under 10 C.F.R. § 1021.314. *See Wisconsin*, 745 F.2d at 418 ("An important difference" between a new EIS and supplemental EIS is that an agency prepares a supplemental EIS where there is "an already existing, in-depth review of the likely environmental consequences of its decision").

Because the 2013 amended ROD implemented an ongoing federal action that was comprehensively analyzed in prior EISs, NEPA did not require DOE to prepare a new EIS or EA, and Plaintiffs' allegations to that effect should be dismissed. *See, e.g.*, *In re Mo. River Sys*., 516 F.3d at 693 (declining to consider plaintiffs' argument that Army Corps was required to prepare new EIS where supplementation was "the relevant issue"); *Grand View*, 947 F.2d at 656 (holding that plaintiffs' "new EIS" claim "d[id] not present an independent basis for relief" where question was whether supplemental EIS was needed); *Pub. Emps. for Envtl. Responsibility v. Beaudreau*, 25 F. Supp. 3d 67, 126 (D.D.C. 2014), *appeal dismissed sub nom. Pub. Emps. for Envtl. Responsibility v. Cruickshank*, No. 14-5117, 2014 WL 3014869 (D.C. Cir. June 11, 2014) (holding that operations plan to implement Cape Wind Project was not a "new major federal action" requiring a new EIS); *Nat'l Wildlife Fed'n v. Babbitt*, No. 88-0301, 1993 WL 304008, at *5 (D.D.C. July 30, 1993) (holding that proposed coal-leasing rules were part of ongoing action and plaintiff's demand for a new EIS was an "invit[ation] . . . into a hall of mirrors").

DOE properly determined in its 2013 Supplement Analysis and confirmed in its 2015 Supplement Analysis that no supplemental or new EIS was required. Defendants should therefore be granted summary judgment on the second count Plaintiffs' complaint.

3. DOE's actions relating to Indonesia and Germany do not require a new programmatic EIS.

Plaintiffs' third count, alleging that NEPA required DOE to prepare a new "programmatic EIS," suffers from the same defect as their "new EIS" claim. Although Plaintiffs' allegations in in this count mischaracterize the facts, and can be rejected on that basis alone, any attempt to amend the allegations would be futile because DOE has a programmatic EIS for accepting spent nuclear fuel and target material from foreign research reactors – the FRR FEIS – and the proposal involving Germany is subject to a separate NEPA review that has not been completed.

DOE regulations require preparation of a programmatic EIS "[w]hen required to support a DOE programmatic decision." 10 C.F.R. § 1021.330(a) (citing 40 C.F.R. §§ 1508.18(b)(3) and 1502.4)).[19] Plaintiffs allege that DOE made a programmatic decision when it allegedly "initiated a program" of accepting target material "that appears to be piecemeal and *ad hoc*." Compl. ¶ 80. As evidence of the alleged "program," Plaintiffs assert that DOE has made decisions concerning target material in Indonesia and spent nuclear fuel in Germany that are in conflict with DOE's decisions regarding target material in Canada. *Id.* On this basis Plaintiffs contend that target

[19] "Under the CEQ regulations a programmatic EIS should be prepared if actions are 'connected,' 'cumulative,' or sufficiently 'similar' that a programmatic EIS is 'the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions.' 40 C.F.R. § 1508.25(a)." *Nevada*, 457 F.3d at 92. The determination whether a proposal for major federal action is programmatic in nature, however, is within the discretion of the agency in the first instance. *Id.*

material is being returned to the United States "without central guiding principles and with inconsistent criteria," and therefore a programmatic EIS "must be compiled." *Id.* ¶ 81.

The defects in Plaintiffs' third count are numerous. First, Plaintiffs themselves acknowledge that Indonesia's proposal to return a small quantity of downblended target material to the United States is distinguishable from Canada's request to return a far greater volume of target material without downblending. Compl. ¶ 40.[20] Plaintiffs also assert without support that the Savannah River Site "anticipate[s]" receiving solidified material from Germany, Compl. ¶ 47, when in fact no decision has been made on the issue, the material is not target material, and DOE is preparing an EA that has not been finalized. *See* Notice of Availability, 81 Fed. Reg. 4023 (Jan. 25, 2016). Plaintiffs thus fail to allege any facts showing an inconsistency in DOE's decision-making.

Moreover, decision-making that is "piecemeal" and "*ad hoc*," as Plaintiffs allege, Compl. ¶ 80, is not evidence of a new "program." *See* 40 C.F.R § 1508.18(b)(3) (defining "new programs" as "concerted actions" or "systematic and connected agency decisions"). Plaintiffs' argument thus appears to be that DOE should *make* a new programmatic decision. But Plaintiffs have not pleaded a failure-to-act claim under the APA, 5 U.S.C. § 706(1), as they would need to do to seek that relief. *See Norton*, 542 U.S. at 63. Plaintiffs cannot obtain a new programmatic decision through NEPA, which imposes only procedural requirements on federal agencies. "NEPA was not intended to resolve fundamental policy disputes." *Found. on Econ. Trends v. Lyng*, 817 F.2d 882, 886 (D.C. Cir. 1987).

[20] The difference is even starker than Plaintiffs portray it. The target material processed by Indonesia amounts to less than 1 liter, whereas Canada is holding over 22,000 liters (6,000 gallons), AR 139:27,336, and does not have the capability to process that volume domestically, AR 76:24,238.

In reviewing an agency's compliance with NEPA, "the only role for a court is to insure that the agency has taken a 'hard look' at environmental consequences[.]'" *Kleppe*, 427 U.S. at 410 n. 21. DOE took that hard look at transporting target material as a liquid solution – twice – and reasonably concluded both times that the potential impacts were not significantly different from those analyzed in the FRR FEIS. AR 101:26,371; AR 139:27,353. Plaintiffs' evident dissatisfaction with DOE's policy is best addressed to Congress. *New York*, 824 F.3d at 1023. It does not state a claim under NEPA. *See Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 777 (1983) ("The political process, and not NEPA, provides the appropriate forum in which to air policy disagreements.").

B. DOE Acted Within Its Statutory Authority.

Plaintiffs remaining counts are not supported by well-pleaded allegations and, at most, restate their unavailing NEPA allegations.

Plaintiffs' fourth cause of action alleges that, by "failing to comply with NEPA," DOE violated the Atomic Energy Act, 42 U.S.C. § 2011, and the Department of Energy Organization Act, 42 U.S.C. § 7112. Compl. ¶ 87. Because DOE fully complied with NEPA, and Plaintiffs have failed to identify any other basis for this claim, Defendants should be granted summary judgment on Plaintiffs' fourth cause of action.

Similarly, in their fifth cause of action, Plaintiffs allege a generic claim that DOE's decision to proceed with the shipments of Canadian target material was arbitrary and capricious under the APA, 5 U.S.C. § 706(2). Compl. ¶¶ 91-92. Plaintiffs' allegations under this count appear at most to restate their allegations of NEPA violations, which Defendants showed to be unsupported. Thus, this count also fails. *Hodges*, 300 F.3d at 449 n.17 ("In view of DOE's compliance with NEPA, the [Plaintiffs'] APA challenge is also without merit."). Summary judgment should be granted to Defendants on this count as well.

VI. CONCLUSION

For the foregoing reasons, Defendants' motion to for summary judgment should be granted and Plaintiffs' motion for summary judgment should be denied.

Respectfully submitted this 4th day of November 2016,

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CERTIFICATE OF SERVICE

I hereby certify that on November 4, 2016, I electronically filed the foregoing document and its attachments with the Clerk of the Court using the CM/ECF system, which will send notification of the filing to all parties.

/s/ Judith E. Coleman