IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

Beyond Nuclear, *et al.,*	)	Case No. 1:16-cv-01641
Plaintiffs,	)	Judge Chutkan
-vs-	)	
U.S. Department of Energy, *et al.,*	)	
Defendants.	)	
	)	

* * * * *

PLAINTIFFS' REPLY MEMORANDUM IN SUPPORT OF THEIR CROSS-MOTION FOR SUMMARY JUDGMENT, IN SUPPORT OF MOTION TO SUPPLEMENT THE RECORD AND TO SUBMIT EXTRA-RECORD DOCUMENTS, AND IN RESPONSE TO DEFENDANTS' MOTION TO STRIKE EXTRA-RECORD MATERIALS AND PORTIONS OF PLAINTIFFS' MEMORANDUM

Diane Curran, Esq.
Harmon, Curran, Spielberg
& Eisenberg, LLP
1725 DeSales Street NW, Suite 500
Washington, D.C. 20036
Tel: (240) 393-9285
Email: dcurran@harmoncurran.com
Counsel for Plaintiffs

Terry J. Lodge, Esq.
316 N. Michigan St., Ste. 520
Toledo, OH 43604-5627
(419) 255-7552
Fax (440) 965-0708
tjlodge50@yahoo.com
Co-Counsel for Plaintiffs

December 20, 2016

TABLE OF CONTENTS

Page

INTRODUCTION..... 1

I. DEFENDANTS HAVE NOT SHOWN THAT THE RECORD SUPPORTS THEIR REFUSAL TO PREPARE A NEW OR SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT REGARDING THE PROPOSED TRANSPORT OF TARGET MATERIAL IN LIQUID FORM. 3

A. The Record Shows a Longstanding Policy by DOE, Based on Significant Environmental Considerations, to Ship Target Materials and Other Forms of Spent Fuel in Solid Form. 4

1. DOE's claim that target material is not a form of spent fuel is contradicted by the record. 5
2. Defendants distort the 1977 NRC Transportation EIS..... 7
3. Defendants have failed to show that the difference between environmental impacts of liquid and solid target material shipments is negligible.. 12

B. The NRC's Certification of the Type B Transportation Cask Cannot Substitute for or Excuse NEPA Compliance by DOE. 12

C. The Court Owes No Deference to DOE's Expert's Risk Analysis Because it Fails to Demonstrate that a Severe Accident Involving Shipment of Liquid Target Material is Remote and Speculative. 13

II. THE RECORD SHOULD BE SUPPLEMENTED WITH THE 1972 NRC TRANSPORTATION STUDY..... 15

III. THE COURT SHOULD CONSIDER THE DECLARATIONS OF DRS. RESNIKOFF AND EDWARDS. 21

IV. PLAINTIFFS HAVE NOT CONCEDED ANY OF THEIR FIVE CAUSES OF ACTION..... 24

CONCLUSION. 26

TABLE OF AUTHORITIES

Cases ***Page***

Banner Health v. Burwell, 126 F.Supp.3d 28 (D.D.C. 2015). 20

Calvert Cliffs' Coordinating Comm. v. U.S. Atomic Energy Comm., 449 F.2d 1109 (D.C. Cir. 1971) 12

City of Dania Beach v. FAA, 628 F.3d 581 (D.C. Cir. 2010).. ..... 17, 19, 22

Conservation Law Foundation v. General Services Administration, 707 F.2d 626 (1st Cir. 1983) 2

County of San Miguel v. Kempthorne, 587 F.Supp.2d 64 (D.D.C. 2008) 17

County of Suffolk v. Sec'y of the Interior, 562 F.2d 1368 (2d Cir. 1977). 22

CTS Corp. v. Environmental Protection Agency, 759 F.3d 52 (D.C. Cir. 2014). 19

Davis III v. Latschar, 202 F.3d 359 (D.C. Cir. 2000) 4

Earthworks v. U.S. Dept. of Interior, 279 F.R.D. 180 (D.D.C. 2012) 18

Esch v. Yeutter, 876 F.2d 976 (D.C.Cir.1989). 19

Ethyl Corp. v. EPA, 541 F.2d 1 (D.C. Cir.) (*en banc*), *cert. denied*, 426 U.S. 941 (1976).. 2

Fund for Animals v. Williams, 391 F.Supp.2d 191 (D.D.C. 2005) 17

Grunewald v. Jarvis, 924 F.Supp.2d 355 (D.D.C. 2013) 18

Hodges v. Abraham, 300 F.3d 432 (4th Cir. 2002). 4, 15

Int'l Fabricare Inst. v. EPA, 972 F.2d 384 (D.C. Cir. 1992). 2

Limerick Ecology Action v. NRC, 869 F.2d 719 (3rd Cir. 1989) 13, 14

Marsh v. Or. Nat. Res. Council, 490 U.S. 360 (1989) 3

Nuclear Energy Inst., Inc. v. Envtl. Prot. Agency, 373 F.3d 1251 (D.C. Cir. 2004) (*per curiam*) 8, 10

Oceana, Inc. v. Locke, 674 F. Supp. 2d 39 (D.D.C. 2009). 24

Oceana, Inc. v. Pritzker, Civil Action 15-1220 (ESH) (Slip. Op.) (November 4, 2016). 19

Pac. Shores Subdiv. v. U.S. Army Corps of Engr's, 449 F.Supp.2d 1 (D.D.C. 2006). 17

Price Rd. Neighborhood Ass'n v. United States Dep't of Transp., 113 F.3d 1505 (9th Cir. 1997) 15

Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989).. 4

San Luis & Delta-Mendota Water Authority v. Salazar, 760 F.Supp.2d 855 (E.D. Cal. 2010) 22

State of New York v. Nuclear Regulatory Com'n, 681 F.3d 471 (D.C. Cir. 2012) 14

Theodore Roosevelt Conservation P'ship v. Salazar, 616 F.3d 497 (D.C. Cir. 2010). 19

Webb v. Gorsuch, 699 F.2d 157 (4th Cir. 1983) 22

Statutes

5 U.S.C. § 702. 25

5 U.S.C. § 706(2)(A) (1988). 2

5 U.S.C. §§ 701-706(2). 24

42 U.S.C. §§ 2011-2297g. 24

42 U.S.C. § 7112. 24

42 U.S.C. § 7112(13).. 25

Regulations

10 C.F.R. § 51.52(a)(4). 9

10 C.F.R. § 51.52(a)(2). 9

10 C.F.R. § 1021.101. 24

40 C.F.R. § 1502.9(c)(1)(I). 3

40 C.F.R. § 1502.9(c)(1)(ii). ..... 349 C.F.R. § 173.42011

49 C.F.R. § 172.101. 11

49 C.F.R. §173.420(a)(4) 12

Federal Rules

Fed.R.Evid. 702 22

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

Beyond Nuclear, *et al.,*	)	Case No. 1:16-cv-01641
Plaintiffs,	)	Judge Chutkan
-vs-	)	
U.S. Department of Energy, *et al.,*	)	
Defendants.	)	
	)	

* * * * *

PLAINTIFFS' REPLY MEMORANDUM IN SUPPORT OF THEIR CROSS-MOTION FOR SUMMARY JUDGMENT, IN SUPPORT OF MOTION TO SUPPLEMENT THE RECORD AND TO SUBMIT EXTRA-RECORD DOCUMENTS, AND IN RESPONSE TO DEFENDANTS' MOTION TO STRIKE EXTRA-RECORD MATERIALS AND PORTIONS OF PLAINTIFFS' MEMORANDUM

Pursuant to Rule 56 of the Federal Rules of Civil Procedure, and Local Civil Rule 7(h), Plaintiffs, by and through their undersigned counsel, hereby submit their Reply in Support of Their Cross-Motion for Summary Judgment, in Support of Motion to Supplement the Record and to Submit Extra-Record Documents and in Response to Defendants' Motion to Strike Extra-Record Materials and Portions of Plaintiffs' Memorandum. Plaintiffs herein respond to Defendants' Combined Reply in Support of Their Motion for Summary Judgment and Opposition to Plaintiffs' Cross-Motion for Summary Judgment ("Defendants' Opposition") (ECF 22).

INTRODUCTION

The record of this proceeding shows that the U.S. Department of Energy's ("DOE's")

proposal to ship radioactive target material in liquid form departs significantly from a long line of previous federal environmental impact statements ("EISs"), which for decades have consistently rejected the shipping of spent fuel and other radioactive waste in liquid form as environmentally unacceptable. These previous EISs never treated the shipment of liquid spent fuel and other radioactive waste as a credible alternative, and therefore never considered its environmental impacts. Because neither the environmental consequences nor the overall feasibility of the changes in the proposed action can be discerned from these previous EISs, the National Environmental Policy Act ("NEPA") requires the DOE to prepare a new or supplemental EIS. *Conservation Law Foundation v. General Services Administration*, 707 F.2d 626, 632-34 (1st Cir. 1983).

Defendants' only recourse, in attempting to evade their obligation to comply with NEPA, is to re-cast the record as either showing indifference to the environmental risks of shipping spent fuel as a liquid, or as having thoroughly considered those risks and found them acceptable. But Defendants' attempts to recharacterize or minimize the significance of the record fail. Defendants offer no evidence to counter Plaintiffs' showing that DOE has not "examined the relevant data," nor has it "articulated an adequate explanation for its action." *Int'l Fabricare Inst. v. EPA*, 972 F.2d 384, 389 (D.C. Cir. 1992).

Therefore, even giving Defendants the deference they are due under NEPA and the Administrative Procedure Act ("APA"),[1] the Court must grant summary judgment to Plaintiffs and deny Defendants' motion.

---

[1]Pursuant to the APA, a NEPA action will be reversed only if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A) (1988). This highly deferential standard of review "presumes agency action to be valid." *Ethyl Corp. v. EPA*, 541 F.2d 1, 34 (D.C. Cir.) (*en banc*), *cert. denied*, 426 U.S. 941 (1976).

Plaintiffs also respectfully submit that the Court should grant their motion to supplement the record with a 1972 environmental study by DOE's predecessor, the Atomic Energy Commission ("AEC"), which further demonstrates the government's reasoning in historically rejecting liquid irradiated fuel shipments out-of-hand as an environmentally unacceptable option. *See* "Environmental Survey of Transportation of Radioactive Materials to and from Nuclear Power Plants" (WASH-1238, December 1972) ("AEC Environmental Transportation Study"). Plaintiffs also ask the Court to consider, as relevant extra-record evidence, expert declarations by Drs. Gordon Edwards and Marvin Resnikoff. These declarations demonstrate the seriousness of the environmental concerns that Plaintiffs would raise before the DOE if they were granted an opportunity to comment on a new or supplemental EIS for the proposed shipment of target materials. However, regardless of whether the Court orders supplementation of the record or considers Plaintiffs' extra-record declarations, the record of this case provides more than sufficient grounds for a decision ordering DOE to prepare a new or supplemental EIS in support of its proposal to ship radioactive target material in liquid form.

I. DEFENDANTS HAVE NOT SHOWN THAT THE RECORD SUPPORTS THEIR REFUSAL TO PREPARE A NEW OR SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT REGARDING THE PROPOSED TRANSPORT OF TARGET MATERIAL IN LIQUID FORM

NEPA requires supplementation of an EIS when "[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. § 1502.9(c)(1)(I), (ii). *See also Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 361 (1989) (supplemental EIS required "if the new information will affect the quality of the human environment in a significant manner or to a significant extent not

already considered"); *Davis III v. Latschar*, 202 F.3d 359, 369 (D.C. Cir. 2000) ("changes that cause effects which are significantly different from those already studied require supplementary consideration").

The agency must take a "hard look" at potential environmental consequences of its decisions by preparing an EIS prior to any "major Federal action[] significantly affecting the quality of the human environment." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989).

In their Memorandum, Plaintiffs correctly contended that a new or supplemental EIS is required here, because the environmental impacts of shipping liquid irradiated target material are "significant or uncertain, as compared with the original [proposal's] impacts." Plaintiffs' Memorandum at 23 (quoting *Hodges v. Abraham,* 300 F.3d 432, 446-47 (4th Cir. 2002)). Defendants respond that (A) the record does not support Plaintiffs' argument, (B) the U.S. Nuclear Regulatory Commission's ("NRC's") safety review of transportation casks can serve as a substitute for a NEPA analysis by DOE, and © the Court should defer to the risk analysis by DOE's "experts." None of these arguments has merit.

A. The Record Shows a Longstanding Policy by DOE, Based on Significant Environmental Considerations, to Ship Target Materials and Other Forms of Spent Fuel in Solid Form.

In their Cross-Motion for Summary Judgment (ECF 17, 18), Plaintiffs demonstrated that the DOE violated NEPA when it reversed DOE's, NRC's and AEC's longstanding environmental policy of shipping target materials and other forms of spent fuel as solids, without preparing a new EIS or supplementing a previous EIS. As discussed in Plaintiffs' Memorandum of Points and Authorities (ECF 19.1), prior to 2013, neither DOE nor NRC (nor their predecessor, the AEC) gave any serious consideration to shipping liquid spent fuel, because of

its higher vulnerability to dispersion into the environment. *Id.* at 9-13. In attempting to defend the lawfulness of its actions, Defendants accuse Plaintiffs of "carelessness," of employing "misleading terminology to blur . . . distinctions," "slapdash presentation of declarations," "outlandish theory," "cherry-picked quotations" and "chain of misstatements," among other pejoratives. *See, e.g.,* Defendants' Opposition at 2, 4, 11-12, 17, 22. But the administrative record shows that it is Defendants themselves who have carelessly failed to read the record, and who rely on misleading, selective and self-serving readings of record documents to answer Plaintiffs' claims.

1. DOE's claim that target material is not a form of spent fuel is contradicted by the record.

Defendants assert that "Plaintiffs incorrectly assume that target material is 'a form of' spent nuclear fuel . . . and therefore wrongly conclude that shipments of solidified target material would have the same risk profile as 'non-dispersible' solid spent nuclear fuel." Defendants' Opposition at 2. According to Defendants, "target material is *not* a type of spent nuclear fuel, and the solidified target material assumed in the FRR FEIS would have been a "*dispersible* powder." *Id.* (emphasis in original).[2]

Defendants' argument that irradiated target material is not a form of spent fuel is directly refuted in the FRR FEIS. *See* FRR FEIS at 2-4 (AR0008045) (referring to target material as a "Qualifying Fuel Type"); and FRR FEIS at B-22 (AR0008576) (referring to target material as a "type[] of spent fuel" or "other spent fuel").[3]

---

[2]*See also* Defendants' Opposition at 21, asserting that Plaintiffs' characterization of target material as a form of spent fuel is "off-base" and its comparison of target material to high-level nuclear waste (*i.e.,* reprocessed spent fuel) "invented."

[3]At page B-22, the FRR FEIS states:

> In the past, the target material was shipped to the Savannah River Site in aluminum cans 64 mm (2.5 in) in diameter and 280 mm (11 in) long. The use of the first process would

DOE also refers to irradiated target material as spent nuclear fuel in the related Savannah River Site Spent Nuclear Fuel Management Final Environmental Impact Statement ("SRS FEIS") (AR 0011567). *See* page 1-1 (AR 0011590), wherein DOE states that "[a]fter irradiation, the fuel and targets" are "collectively referred to as spent nuclear fuel." The SRS FEIS also describes "Group D fuels" as including "targets in foreign countries that DOE expects would be converted to oxide prior to shipment to SRS."[4] *Id.* at 1-11, AR 0011600. And, of course, the title of the FRR FEIS asserts that the subject matter of the FEIS is a "Proposed Nuclear Weapons Nonproliferation Policy *Concerning Foreign Research Reactor Spent Nuclear Fuel,*" without any distinction or exception for the target material that is included in the FEIS. (AR0007903) (emphasis added).

Accordingly, the record shows that the DOE considers target material to constitute a form of spent nuclear fuel. Therefore, Defendants fail at their attempt to distinguish target material from spent fuel with respect to DOE's assumptions and policies in the FRR FEIS.

> result in a total 140 shipments of this material to the United States, and the second process would result in a total of 57 shipments**.** *These numbers of shipments were estimated based on an assumption that the target material cans would be in transportation casks that would not contain other types of spent nuclear fuel.* However, in all likelihood, with small amounts of target materials *[sic; should be "countries with small amounts"]* (such as Indonesia and Argentina), *would not ship a partially filled transportation cask when other spent nuclear fuel* could be added to fill the cask. (AR0008576) (emphasis added).

[4]The SRS FEIS describes Group D fuels as follows:

> This group consists of loose uranium oxide with fission products distributed through the material that has been stored in aluminum cans. This material, in its current particulate form, probably would not be acceptable for disposal in a repository because it is not in a tightly bound metal or ceramic matrix. Therefore, this group probably would require special packaging and/or treatment. Group D fuels also include targets in foreign countries that are liquid and that DOE expects would be converted to oxide prior to shipment to SRS.

Id. at 1-11, AR 0011600.

There is no dispute that in the FRR FEIS, DOE assumed that spent nuclear fuel would be shipped as a solid. While DOE states that this is because spent nuclear fuel *is* a solid (Defendants' Opposition at 2, 19, 20, 21), it is clear that the 2013 Supplement Analysis was the very first time that DOE distinguished target material from spent nuclear fuel for purposes of deciding in what form it would be shipped.

2. Defendants distort the 1977 NRC Transportation EIS.

Defendants also distort the record of DOE's and NRC's historic policy that spent fuel and other radioactive material should be shipped as a solid to minimize the risk of dispersion into the environment. Accusing Plaintiffs of misrepresenting the record, Defendants cite the NRC's 1977 Final Environmental Statement on the Transportation of Radioactive Waste by Air and other Modes (NUREG-0170) (AR0000001-AR0000198) ("NRC Transportation EIS") for the proposition that the government previously considered the environmental impacts of transporting both solid and liquid radioactive waste and found the distinction to be environmentally insignificant. Defendants' Opposition at 19. But it is Defendants who selectively quote and thereby distort the meaning of the EIS. According to Defendants:

> Plaintiffs allege . . . that [the NRC Transportation EIS] 'assumed' that spent nuclear fuel would be shipped in solid form 'based on the government's consensus that the environmental impacts of shipping liquid were significant and unnecessary . . .' Pls.' Mem. 9. *That is false. The 1977 EIS addressed the 'environmental impact of radioactive material shipments in all modes of transport.'* AR 1-0008. *See also* AR 22:9014-15 (describing 'modal study' in 1977 EIS).

Defendants' Opposition at 18-19 (emphasis added). As used by Defendants, the phrase "all modes of transport" suggests that the NRC evaluated the environmental impacts of shipping spent fuel in both liquid and solid "modes." In reality, the different "modes" considered by the

NRC Transportation EIS were air and land transport. *Id.,* AR0000004.[5] Defendants thus grossly distort the record in order to (incorrectly) accuse Plaintiffs of a falsehood.

Defendants struggle vainly to minimize the significance of the NRC Transportation EIS' conclusion that the consequences of a major transportation accident would be limited by "one or more parameters: short half-life, *nondispersible form,* low radioactivity." *See* Plaintiffs' Memorandum at 10 (quoting NRC Transportation EIS at (AR 0000009) (emphasis added)). According to Defendants, "[t]he section containing this statement describes the procedures by which NRC considered the different consequences and alternatives: it selected one of the three 'parameters' at a time.'" Defendants' Opposition at 19. But short half-life and low radioactivity are not characteristics of any form of spent fuel, including target materials.[6] By default, its nondispersible form is the key factor to its claimed low impacts during shipment.

Defendants further argue that "[t]his section does not state that materials *must* or *will* be shipped in a non-dispersible form because other options are 'unacceptable,' as Plaintiffs contend." Defendants' Opp. at 19 (emphasis in original). But Defendants ignore the fact that the NRC Transportation EIS leaves no other opening for shipment of liquid spent fuel or radioactive waste, nor does it seriously entertain it. The record simply provides no support for the conclusion

---

[5]Similarly, nothing in the FRR EIS supports Defendants' insinuation that the NRC Transportation EIS considered transport of liquid spent fuel as a "mode[] of transport." Defendants' Opp. at 18-19 (citing FRR EIS at E-43, AR22:9014-15). At page E-43, the FRR EIS refers to a 1987 "modal study" intended to "refine more precisely the analysis in [the NRC Transportation EIS." The discussion contains no suggestion that the Transportation EIS considered the environmental impacts of transporting spent fuel as a liquid.

[6] For instance, target material contains plutonium (*see* FRR FEIS, Table B-7 at B-23, AR 0008577), with a half-life of 24,000 years. FRR FEIS at 9-6, AR0008493. The environmental risks posed by irradiated fuel are extreme: irradiated spent fuel has "the capacity to outlast human civilization as we know it and the potential to devastate public health and the environment." *Nuclear Energy Inst., Inc. v. Envtl. Prot. Agency,* 373 F.3d 1251 (D.C. Cir. 2004) (*per curiam*).

that the NRC considered shipping liquid radioactive waste to constitute a credible alternative. The NRC's preference for shipment of radioactive waste in solid form is borne out in NRC regulation 10 C.F.R. § 51.21 and its Table S-4 (Environmental Impact of Transportation of Fuel and Waste To and From One Light-Water-Cooled Nuclear Power Reactor). Table S-4 contains generic findings that the environmental impacts of transporting spent fuel and other radioactive waste are small, based on the explicit "conditions" that irradiated fuel is in "in the form of sintered uranium dioxide pellets" (10 C.F.R. § 51.52(a)(2)) and that all other "radioactive waste shipped from the reactor is packaged and in a solid form." 10 C.F.R. § 51.52(a)(4).

Defendants also fail to refute the importance of the "AEC Environmental Transportation Study" prepared in 1972 by the AEC (the DOE's predecessor agency)[7], in providing further explanation of the NRC's reasons for giving no consideration to the alternative of shipping spent fuel and other radioactive waste as a liquid.[8] Defendants argue that by stating that impacts of spent fuel and radioactive waste transportation were unlikely to be large due to their solid form, the AEC "did not indicate a preference for one form of material over the other." Defendants' Opposition at 20. This argument is simply absurd; nowhere in the Environmental Transportation Study does the AEC weigh or even consider the option of shipping spent fuel or radioactive waste as a liquid – that alternative was implicitly ruled out. In fact, as discussed above, the NRC

[7]The AEC was the predecessor agency to both DOE and NRC. The Energy Reorganization Act of 1974 abolished the AEC, and split its responsibilities for regulating and promoting nuclear energy between NRC and the DOE, respectively. 42 U.S.C. § 5801.

[8]While the AEC Environmental Transportation Survey was not included by Defendants in the record of this case, it is relied on in the NRC's 1977 Transportation EIS and in NRC transportation regulations, and therefore should have been included in the record. It also provides valuable confirmation of the reasons for the longstanding policy, initiated with the AEC – the predecessor agency to both DOE and NRC – that spent fuel and other radioactive waste should be shipped in solid form. Over Defendants' objection, Plaintiffs have moved to supplement the record with the AEC Environmental Transportation Survey. *See* Section II below.

regulation that relies on the AEC Environmental Transportation Study imposes the explicit "conditions" that spent fuel and other radioactive waste must be shipped as solids in order for the NRC to conclude that the environmental impacts of the shipments are insignificant. 10 C.F.R. §§ 51.52(a)(2) and 51.52(a)(4). And the AEC Environmental Transport Survey is also cited as a reference to Table S-4. *Id.,* note 1.

The government's consistent pattern of choosing to ship radioactive waste as a solid, over a period of decades, fatally undercuts Defendants' repeated suggestion that the option of shipping radioactive waste in liquid form has simply been left open for future consideration. For instance, DOE contends that "[t]he FRR FEIS did not exclude the possibility of shipping target material in liquid form." Defendants' Opposition at 21. To the contrary, the fact that DOE, NRC, and AEC opted every time for shipment of radioactive waste as a solid demonstrates a policy of *excluding* liquid waste shipments. The consistent expression in NEPA documents of the policy preference for transporting solid or solidified spent nuclear fuel means that DOE has excluded the transport of liquid nuclear material. *Expressio unius est exclusio alterius* (the expression of one thing is the exclusion of the other), *Nuclear Energy Institute, Inc. v. Environmental Protection Agency,* 373 F.3d 1251, 1292 (D.C. Cir. 2004). By reviewing AEC's, DOE's and NRC's policy choices over time, an intention to exclude discussion of liquid shipments may clearly be inferred; indeed, it is the only logical conclusion, until the 2013 Supplement Analysis (AR0026359).

Further, Defendants dispute the significance of language in the FRR FEIS that "the target material considered for management would be put in U3O8 or UO2 form and canned for transport." Defendants' Opposition at 21 (citing AR 0008070). According to Defendants, "[t]hat is an assumption, not a policy preference." But the FRR FEIS was written for DOE's own

decisions, and by its very title supports a "Policy." DOE has the role of *deciding* what form to require for shipments of spent fuel to its facilities, and need not merely assume what other parties will do. Given DOE's complete discretion to choose, that decision can fairly be characterized as a policy. Moreover, as discussed in Plaintiffs' Memorandum at 13, solidification of the target material prior to shipping was included as the Preferred Alternative in the DOE's formal Record of Decision ("ROD"), 61 Fed. Reg. 25,095 (AR0009577).

Thus, contrary to Defendants' assertion at page 21, the FRR FEIS and ROD did, in fact, exclude the possibility of shipping target material as a liquid.[9] The fact that the U.S. Department of Transportation ("DOT") allows liquid transport of other "radioactive isotopes and materials" such as deuterium and tritium, does not alter the DOE's policy for shipping spent fuel and radioactive waste, including target material, as solids. (Defendants' Opposition at 21, n. 9). Deuterium is not radioactive; it is regulated by the U.S. Department of Transportation only for its flammability as a gas.[10] And Defendants simply err in citing 49 C.F.R. § 173.420 for the proposition that DOT regulations allow transport of uranium hexafluoride as a liquid or gas. Defendants' Memorandum of Points and Authorities in Support of Their Motion for Summary Judgment at 32 n. 16 (Nov. 4, 2016) (ECF 15.1) (cited in Defendants' Opposition at 21 n.9). DOT regulation 49 C.F.R. §173.420(a)(4) provides that uranium hexafluoride "*must* be offered for transportation" in "solid form." (emphasis added).

---

[9]There is no merit whatsoever to Defendants' suggestion (Opposition at p. 21) that by leaving open the option of either "calcining" or "oxidizing" the target material, the DOE also left open the option of choosing to ship it as either a liquid or solid. Calcining and oxidizing target materials are simply two ways of solidifying target material. As stated in the FRR EIS at E-46 (AR 0009018), calcined target material is in chunks, while oxidized target material is a powder.

[10]While deuterium is listed as a "hazardous material" by the U.S. Department of Transportation at 49 C.F.R. § 172.101, it is not listed as a "radioactive" material.

3. Defendants have failed to show that the difference between environmental impacts of liquid and solid target material shipments is negligible.

Defendants argue that the target material would be in a powder form that is dispersible, and therefore the difference between shipping in solid and liquid form is negligible. Defendants' Opposition at 22. This argument fails on two levels. First, the analysis in the FRR FEIS concerns dispersal of target materials into air. AR 0009017-18. The FRR FEIS contains no environmental analysis of dispersal into water. Not until the 2015 Supplement Analysis did the DOE make any attempt to analyze the effects of dispersal into water. AR 0027375.

Second, as Defendants argue, the FRR FEIS allowed DOE to choose between calcining and oxidizing target material. *See* note 9 above. Calcined target material is described in the FRR FEIS as "chunks," which obviously would be less easily dispersed than powder. In any event, neither calcined nor oxidized target material would constitute a liquid.

B. The NRC's Certification of the Type B Transportation Cask Cannot Substitute for or Excuse NEPA Compliance by DOE.

Defendants argue that NRC's certification of Type B transportation casks for irradiated liquid target materials is a "fact" on which it can rely for its conclusion that the environmental impacts of shipping target materials as liquids are insignificant in comparison to solids. Defendants' Opposition at 23. But Defendants' argument runs afoul of the well-established principle that agencies must comply with NEPA "to the fullest extent, unless there is a clear conflict of *statutory authority.*" *Calvert Cliffs' Coordinating Comm. v. U.S. Atomic Energy Comm.,* 449 F.2d 1109, 1115 (D.C. Cir. 1971) (emphasis in original). *See also Limerick Ecology Action v. NRC,* 869 F.2d 719, 729 (3rd Cir. 1989) (holding that the Atomic Energy Act does not preclude NEPA compliance). Defendants may not rely on the NRC's Atomic Energy Act-based safety review to preclude or avoid NEPA compliance. *Limerick Ecology Action,* 869 F.3d at 729-

30.

In its cask certification proceeding, the NRC strictly limited its review to the question of whether the cask complied with minimum safety standards established by NRC under the Atomic Energy Act. NRC Safety Evaluation Report ("SER"), AR 0027105. Nowhere does the record reflect any NEPA review by NRC, or any other agency, of the different question of what are the environmental impacts of transporting liquid target materials. Because the Atomic Energy Act neither conflicts with NEPA nor exempts agencies from NEPA compliance, the DOE must comply with NEPA.[11]

C. The Court Owes No Deference to DOE's Expert's Risk Analysis Because it Fails to Demonstrate that a Severe Accident Involving Shipment of Liquid Target Material is Remote and Speculative.

Defendants argue this Court is required to grant DOE "'discretion to rely on the reasonable opinions of its own qualified experts' in determining whether a supplemental EIS is required." DOE Opposition at 17-18 (quoting *Marsh,* 490 U.S. at 378). But the Court should not defer to DOE, because its experts have not demonstrated that the likelihood of a severe transportation cask accident involving liquid target material is remote and speculative, as required to justify DOE's refusal to prepare a new or supplemental EIS.

The point is, nowhere – either in Defendants' brief or any of the DOE record documents – do Defendants assert that the potential for an accident involving shipments of liquid target material is remote and speculative. Consequently, an EIS is required. An agency is excused from NEPA compliance only if the likelihood of harm is so "'remote and speculative' as to reduce the effective probability of its occurrence to zero"). *State of New York v. Nuclear Regulatory Com'n*,

[11] By the same token, the Canadian Nuclear Safety Commission's 2014 Technical Assessment Report, relied on by DOE in the 2015 Supplement Assessment (AR0027375), cannot substitute for DOE's compliance with NEPA.

681 F.3d 471, 482 (D.C. Cir. 2012) (citing *Limerick Ecology Action,* 869 F.2d at 739).[12]

State of New York involved circuit review of an NRC rulemaking regarding temporary storage and permanent disposal of nuclear waste, including the environmental risks of fires in spent fuel storage pools. The NRC had argued that it "did not need to examine the consequences of fires to be very low." 681 F.3d at 482. But the Court found that the NRC could not avoid analyzing the consequences of pool fires unless the potential for fires was "so 'remote and speculative' as to reduce the effective probability of its occurrence to zero." *Id.* (quoting *Limerick Ecology Action,* 681 F.2d at 739). Here, in contrast, DOE does not assert that the effective probability of an accident involving irradiated liquid target material is zero. To the contrary, in the FRR FEIS, the DOE conceded that severe accidents involving transportation casks are credible, and evaluated the consequences of a release of solid material from a cask in Appendix E. AR0008165 – AR0009199. The analysis comprised hundreds of pages. The record of this proceeding shows that the AEC, the NRC, and the DOE historically eschewed transport of liquid spent fuel or other liquid radioactive waste because the dispersible character of the material could significantly alter its impacts. Yet, the DOE has failed to take the necessary step of analyzing the effects of a severe transportation accident involving liquid target material. This responsibility includes submitting a draft EIS for public comment. As demonstrated in the declarations of Drs. Edwards and Resnikoff, the environmental concerns that would be raised in comments on such a draft EIS are significant. *See* Plaintiffs' Corrected Memorandum of Points

[12] Defendants suggest (Opposition at 22) that Plaintiffs rely on their experts' declarations to "find greater potential impacts to health and safety than those found by NRC." Defendants' Opp. at 17. Defendants are incorrect. Plaintiffs rely on the *administrative record* to show that the environmental impacts of shipping liquid target material are significant or uncertain, as compared with the original proposals' impacts. Plaintiffs' Memorandum at 23; *Hodges,* 300 F.3d at 446-47. Plaintiffs rely on the declarations of Drs. Edwards and Resnikoff to show the gravity of the technical environmental issues that would be raised if Plaintiffs were permitted to comment on a draft EIS. *See* Plaintiffs' Memorandum at 17-19.

and Authorities (ECF 19.1) at 17-20.

As discussed in Plaintiffs' initial Memorandum at 7, the DOE may not substitute a Supplement Analysis for the compilation of an EA or EIS. The authority to conduct a Supplement Analysis review "is limited; it may only conduct such a preliminary inquiry *to determine whether it is possible that the altered proposal's environmental impact will be significant*." *Hodges v. Abraham*, 300 F.3d at 446-447 (quoting *Price Rd. Neighborhood Ass'n v. United States Dep't of Transp.,* 113 F.3d 1505, 1508-09 (9th Cir. 1997) (emphasis added)). "If 'the environmental impacts resulting from the design change are significant or uncertain, as compared with the original design's impacts,' then the DOE must complete additional NEPA documentation." *Id.* Here, Defendants have completely failed to demonstrate that they complied with the requirements of NEPA in ruling out a supplemental or new EIS for transportation of target material in liquid form.

II. THE RECORD SHOULD BE SUPPLEMENTED WITH THE 1972 NRC TRANSPORTATION STUDY.

Plaintiffs have moved the Court to allow the administrative record of this litigation to be supplemented by the addition of the AEC Environmental Transportation Study ("Environmental Survey of Transportation of Radioactive Materials to and from Nuclear Power Plants" (WASH-1238, December 1972)). Plaintiffs' Motion to Supplement the Record and to Submit Extra-Record Documents (ECF __). Plaintiffs proposed to submit the study in "Plaintiffs' Memorandum of Points and Authorities In Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment and Plaintiffs' Cross-Motion for Summary Judgment," at 8 n.11 (ECF 16, as corrected ECF 19-1). Defendants oppose Plaintiffs' request, *see* "Defendants' Motion to Strike Extra-Record Materials and Portions of Plaintiffs' Memorandum in Support of

Summary Judgment" (ECF 21) and supporting "Memorandum in Opposition to Cross-Motion for Summary Judgment" (ECF 22).

The Environmental Transportation Study is an authoritative AEC survey of radioactive material transport protocols that is cited as a basis for the 1977 NRC Transportation FEIS (AR0000001-AR0000198)). The NRC Transportation FEIS assumed that spent fuel would be shipped as solids. *Id.* at 7-2 (spent fuel) and 7-2 - 7-3 (low-level radioactive waste) (AR___ and AR___, respectively). Although written in 1972, the AEC Environmental Transportation Survey maintains its viability down to the present as the data source for the NRC's Table S-4, which depicts "Environmental Impact of Transportation of Fuel and Waste To and From One Light-Water-Cooled Nuclear Power Reactor." As discussed above at p. 8, Table S-4 contains generic findings that the environmental impacts of transporting spent fuel and other radioactive waste will remain small, based on the explicit "conditions" that irradiated fuel is in "in the form of sintered uranium dioxide pellets" and all other "radioactive waste shipped from the reactor is packaged and in a solid form." 10 C.F.R. §§ 51.52(a)(2) and 51.52(a)(4). Footnote (a) to Table S-4 credits the Environmental Transportation Survey as the source for the data supporting the table.

Plaintiffs respectfully submit that the Environmental Transportation Survey should be included in the record as the first environmental analysis of spent fuel and radioactive waste impacts, which provides crucial insight into the DOE's reasons for completely failing to evaluate the environmental impacts of liquid target transport in the 1996 FRR FEIS, and which also explains that the "solid" form of shipped waste is key to any finding that transportation impacts are low. Despite the clear relevance of the Environmental Transportation Survey and its role in the environmental decision-making process, Defendants have refused to include it in the record,

and claim they have discretion to exclude it. Defendants' Opposition at 8-9.

Plaintiffs respectfully submit that Defendants err in insisting that the Environmental Transportation Survey may be excluded from the record in this case. While courts generally defer to an agency's choices when assembling the record, *Pac. Shores Subdiv. v. U.S. Army Corps of Engr's,* 449 F.Supp.2d 1, 4 (D.D.C. 2006), courts will make exceptions for "unusual circumstances justifying a departure from this general rule." *City of Dania Beach v. FAA*, 628 F.3d 581, 590 (D.C. Cir. 2010). These circumstances include "(1) if the agency deliberately or negligently excluded documents that may have been adverse to its decision, (2) if background information was needed to determine whether the agency considered all the relevant factors, or (3) if the agency failed to explain administrative action so as to frustrate judicial review. . . ." *Id.* (citation and quotation marks omitted). Furthermore, courts have held that the "whole record include[s] all materials that might have influenced the agency's decision, and not merely those on which the agency relied in its final decision." *County of San Miguel v. Kempthorne,* 587 F.Supp.2d 64, 71 (D.D.C. 2008) (citation and quotation marks omitted). *See also Fund for Animals v. Williams*, 391 F.Supp.2d 191, 196 (D.D.C. 2005) (citations omitted) (The "record must include all documents that the agency directly or indirectly considered."). *Fund for Animals v. Williams*, 391 F.Supp.2d 191, 196 (D.D.C.2005) (citations omitted).

Plaintiffs contend that the first two *Dania Beach* factors for supplementation are present here. The Environmental Transportation Survey is so fundamental a reference on the issue of radioactive materials transportation – to the extent that it is relied on today in NRC transportation regulations -- that DOE's failure to review it can only be described as negligent.

The AEC Environmental Transportation Survey further meets the second *Dania Beach* criterion for supplementation because it shows that the DOE did not consider all relevant factors

in its Supplement Analyses. An agency "may not skew the record in its favor by excluding pertinent but unfavorable information, [n]or may the agency exclude information on the grounds that it did not 'rely' on the excluded information in its final decision." *Fund for Animals,* 391 F.Supp.2d at 197 (citations omitted). The AEC Environmental Survey effectively repudiates DOE's assertion in the Supplement Analysis that the environmental difference between shipping target material in solid and liquid form is negligible (2013 SA, AR0026368). For DOE to completely ignore such a conflicting finding in a predecessor document negates the *Pacific Shores* presumption of regularity of the administrative record. Plaintiffs have "demonstrate[d] unusual circumstances justifying a departure from the general rule," and therefore supplementation of the record is warranted. *Earthworks v. U.S. Dept. of Interior*, 279 F.R.D. 180, 185 (D.D.C. 2012) (internal quotation marks omitted).[11]

Alternatively, Plaintiffs move the Court to "complete" the record by considering the AEC Environmental Transportation Survey. *Oceana, Inc. v. Pritzker*, Civil Action 15-1220 (ESH) (Slip. Op.) at 6-7 (November 4, 2016). At p. 10 of their Opposition, Defendants postulate the standards within the D.C. Circuit for receipt of extra-record items. Plaintiffs agree that it is a succinct statement of the law and respectfully submit that the AEC Environmental Transportation Survey passes the test. As DOE has argued, the "unusual circumstances" where

[11] Defendants cite *Grunewald v. Jarvis,* 924 F.Supp.2d 355 (D.D.C. 2013) for the proposition that supplementation of the record will be denied "for a document that was referred to in a document that was referred to in the Record." *Id.* at 358. Defendants' Opposition at 9. But the document for which record supplementation was sought in *Grunewald* was a national species management plan which did not tier and had no direct connection to, a local White-Tailed Deer Management Plan/Environmental Impact Statement. The national plan was at two removes from the administrative record. Here, in contrast, the Environmental Transportation Survey is referenced in a key administrative record document which in turn is an important reference in the decisional documents. It is temporally and logically connected to the DOE decision not to supplement the EIS, and its exclusion suggests that DOE negligently overlooked important historical policy reasoning.

extra-record evidence may be considered by a court include a showing that "the agency deliberately or negligently excluded documents that may have been adverse to its decision" and that "background information [is] needed to determine whether the agency considered all the relevant factors." *City of Dania Beach,* 628 F.3d at 590.

As the D.C. Circuit held in *Theodore Roosevelt Conservation P'ship v. Salazar*, 616 F.3d 497 (D.C. Cir. 2010), "'it may sometimes be appropriate to resort to extra-record information' to determine whether an administrative record is deficient.," *Id.* at 514 (quoting *Esch v. Yeutter,* 876 F.2d 976, 991 (D.C.Cir.1989)). And extra-record evidence may be considered where "the procedural validity of the agency's action remains in serious question" and "the agency affirmatively excluded relevant evidence." *CTS Corp. v. Environmental Protection Agency*, 759 F.3d 52, 64 (D.C. Cir. 2014).

Here, as demonstrated above, Defendants ignored a document that was an essential part of the DOE's consideration of transportation impacts, and that is still relied on today in the regulations of the DOE's sister agency, the NRC. There is no possible explanation for DOE's disregard of the document other than negligence or willful disregard.

Finally, DOE argues that "Plaintiffs made no attempt to invoke these exceptions to seek inclusion of the documents prior to filing their dispositive motion and thus forfeited their opportunity to do so." Defendants' Opposition at 7. Defendants cite *CTS Corp.*, 759 F.3d 64 for the proposition that "relegating argument to a footnote 'result[s] in forfeiture.'" Defendants further accuse Plaintiffs of filing their supplementation request in a "tardy" fashion. Defendants' Opposition at 7-8 (citing *Banner Health v. Burwell*, 126 F.Supp.3d 28 (D.D.C. 2015)).

The posture of this case differs considerably from *Banner Health* and *CTS Corp*. Here, the present litigation was assigned by agreement of the parties to an accelerated track because of

DOE's intentions, depending on the litigation outcome, to commence the liquid target material transports shortly after February 17, 2017. Briefing has occurred at two-week intervals which has left the Plaintiffs no opportunity to seek extensions of time because of truncated timing of the case. The administrative record here is greater than 27,000 pages, nearly three times the size of the record in *Banner Health*, 126 F.Supp.3d 56, wherein the parties had literally years to dissect and absorb the contents of the record. Plaintiffs here had 34 days to review DOE's gargantuan record and while responding to Defendants' initial 55-page dispositive motion. It was not clear for some time after being provided the record on October 19, 2016 whether Plaintiffs would need to seek supplementation or to provide extra-record evidence. There was no court-imposed deadline here for motions compelling record supplementation. Plaintiffs have had little choice but to litigate supplementation issues simultaneously as they weighed in on the merits of this complex environmental case.

The *Banner Health* litigation lasted nearly five years. Early on, the court imposed a deadline for motion practice for the petitioner to compel supplementation of the record and held a hearing and ordered supplementation at the plaintiffs' request. *Banner Health v. Burwell*, 126 F.Supp.3d at 62. But later, the plaintiffs moved a second time to supplement the record, when the first briefs were filed. At that point the case was some four years old, and the judge did indeed chastise the plaintiffs for being "tardy" for waiting to seek additional supplementation of the administrative record, but he then proceeded to rule on the merits of each item for which supplementation was sought. *Id.* at 60-64.

In *CTS Corp*., which lasted for some two years, a petitioner challenging a U.S. Environmental Protection Agency finding under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA," better known as "Superfund") waited until the

filing of dispositive motions to introduce extra-record items into the record. CTS did not file a motion, but simply attached the new evidence to its brief and argued in a short footnote that it had the right to *sua sponte* supplement the record because, in CTS's view, the EPA had "'hid[den] * * * the isotope analysis data' until the final rulemaking, depriving CTS of any 'opportunity to comment on EPA's explanation.'" *CTS Corp.*, 759 F.3d 64. The court held that CTS had "hid[den] . . . a substantive legal argument" in a footnote and had "articulat[ed] it in only a conclusory fashion, which results in forfeiture." *Id.* That is not the case here.

Plaintiffs here have met all milestones to which they agreed, and respectfully request the Court to take into account the accelerated pace of this litigation and consider their Motion to Supplement the Record to be timely, and to determine it on its merits.

III. THE COURT SHOULD CONSIDER THE DECLARATIONS OF DRS. RESNIKOFF AND EDWARDS.

Plaintiffs have moved the Court to consider the scientific declarations of Dr. Marvin Resnikoff and Dr. Gordon Edwards as extra-record evidence, for the purpose of demonstrating the gravity of technical issues that would be raised if Plaintiffs were permitted to submit comments on a draft EIS regarding the transportation of target material. Plaintiffs' Motion to Supplement the Record and to Submit Extra-Record Documents (ECF __).

In NEPA cases, courts have allowed extraneous evidence to be introduced where it (1) explains technical information or agency action not adequately explained in record; (2) shows an agency failed to consider relevant evidence; or (3) shows an agency, in bad faith, failed to include information it considered in the record. *Webb v. Gorsuch*, 699 F.2d 157, 159 fn. 2 (4th Cir. 1983) (citing *County of Suffolk v. Sec'y of the Interior,* 562 F.2d 1368, 1384 (2d Cir. 1977)).

Also, Fed.R.Evid. 702 allows a witness "who is qualified as an expert by knowledge, skill, experience, training, or education" to "testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue. . . ." In the D.C. Circuit, the "unusual circumstances" where extra-record evidence may be considered by a court include a showing that, *inter alia,* "background information [is] needed to determine whether the agency considered all the relevant factors." *City of Dania Beach v. F.A.A*., 628 F.3d 581, 590 (D.C. Cir. 2010). *See also San Luis & Delta-Mendota Water Authority v. Salazar*, 760 F.Supp.2d 855, 869 (E.D. Cal. 2010) (expert testimony considered only for explanation of technical terms and complex scientific subject matter beyond the Court's knowledge; and to understand the agency's explanations, or lack thereof, and the parties' arguments).

Dr. Resnikoff is a longtime theoretical physicist with extensive experience for some 40 years in radioactive materials transportation. In his declaration, he critiques the ability of the proposed transport cask to repulse an extremely hot fire that exceeds the 30-minute expectation expressed in NRC regulations. Declaration of Marvin Resnikoff, Ph.D. (Nov. 22, 2016) (ECF 16.2), ¶ 4-5. Dr. Resnikoff opines that some fires could cause emission of radioactive gas and particulate from the cask in amounts that would exceed the volume of radioactive emissions from solidified target materials, envisioning scenarios not detailed or discussed by the Department of Energy in its Supplement Analyses. *Id*. He also asserts that redactions in the NRC's Safety Evaluation Report have made it impossible for scientists to review the calculations of cask performance that were accepted by the NRC. *Id.,* ¶¶ 7-9.

Dr. Edwards is a mathematics Ph.D. with a hard science background and an international consultant on nuclear issues. His declaration points out serious inconsistences among three

different partial inventories of the fission products predicted to be present in the liquid target material, as a consequence of which he questions the validity of the risk assessment calculations created or adopted by DOE. Corrected Declaration of Gordon Edwards, Ph.D. (Nov. 29, 2016) (Edwards Decl.) (ECF 19.2), ¶ 8-11. Dr. Edwards also calculated, using DOE data, that seven one- thousandths of one percent (.007%) of the radioactivity in the target material is due to uranium isotopes, and 99.993% of its radioactivity is due to dozens of other radioactive materials. Edwards Decl. ¶ 7. He also computed that one liter of the liquid target material would contaminate the volume of water in the District of Columbia's Georgetown Reservoir from 33 to 477 times the USEPA limits for Cesium-137. Edwards Decl. ¶¶ 19, 20. Using the Canadian Nuclear Safety Commission's 2014 Technical Assessment Report estimate that there could be leakage of 0.033 percent of the irradiated liquid target residue material, Dr. Edwards calculated that the 76 cubic centimeters represented by 0.033 percent "is enough to make the water in the Georgetown reservoir undrinkable based on the concentration of cesium-137 alone." Edwards Decl. ¶ 22.

Plaintiffs offer expert declarations here to expose factors that the DOE failed to consider in its decision not to prepare an EIS, and which Plaintiffs would have pointed out in their comments had they had an opportunity to respond to a draft EIS. As discussed above, DOE cannot be excused from NEPA compliance unless the likelihood of harm is so "'remote and speculative' as to reduce the effective probability of its occurrence to zero"). *State of New York*, 681 F.3d at 482. Because DOE admits a probability of harm, albeit a low one, the agency must detail and address the possible adverse environmental consequences within an EIS. To that end, the Resnikoff and Edwards declarations are offered as extra-record evidence of potential consequences that Plaintiffs contend should have been considered, and would have been urged

on DOE in comments to the agency. They thereby "add factors that [the agency] failed to consider." *Oceana, Inc. v. Locke*, 674 F. Supp. 2d 39, 48 (D.D.C. 2009).

IV. PLAINTIFFS HAVE NOT CONCEDED ANY OF THEIR FIVE CAUSES OF ACTION

Defendants accuse Plaintiffs of having "conceded" their First, Third, Fourth and Fifth Causes of Action. Plaintiffs have conceded nothing. Defendants themselves admit that Plaintiffs' claims are interrelated, so a ruling on the merits of the Second Cause of Action should prompt findings in Plaintiffs' favor more or less automatically on the remaining causes.

At p. 3 of DOE's Motion for Summary Judgment (ECF 15), DOE admits that Plaintiffs brought "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)." Then, at p. 7 of DOE's MSJ, Defendants admit that "DOE meets these environmental goals, in part, through compliance with NEPA. *See* 10 C.F.R. § 1021.101."

A ruling that an EIS is required, as called for in Plaintiffs' Second Cause of Action, implies relief in the form either of a wholly-new EIS, or an order for supplementation of either the FRR FEIS, which is a Programmatic Environmental Impact Statement, or of the SRS FEIS, or both. The 2013 Supplement Analysis was compiled to evaluate whether the proposed transportation of liquid target material from Canada "necessitated the supplementation of any of the previous EISs, or preparation of a new EIS." Defendants' Motion for Summary Judgment at 2. Were Plaintiffs to prevail on their Second Cause of Action, the Court would order either a new EIS to be prepared, or for the existing SRS SNF EIS to be supplemented. Either document would be tiered to the 1996 FRR FEIS. Plaintiffs would therefore prevail as a follow-on matter on their

Third Cause.

If an EA or EIS is ordered by the Court based on the First or Second Causes of Action, the Court will be simultaneously finding that the Atomic Energy Act's environmental goals have implicitly been violated (Fourth Cause of Action). Plaintiffs pled at ¶ 87 of their Amended Complaint (ECF 4) that the liquid target material is source, byproduct and/or special nuclear material as defined by 42 U.S.C. § 2014 of the Atomic Energy Act which is generated by DOE activity; as such, Plaintiffs pled further that subsection 13 of the Department of Energy Organization Act obligates DOE "[t]o 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." 42 U.S.C. § 7112(13).

Plaintiffs' Fifth Cause of Action requests the Court to find that Plaintiffs have been adversely affected and are aggrieved and harmed under the Administrative Procedure Act ("APA"), 5 U.S.C. § 702. A finding favorable to the Plaintiffs on the Second Cause of Action will have been based upon an inquiry based on the APA, and as a follow-on claim, Plaintiffs will prevail on the Fifth Cause.

The Third, Fourth and Fifth Causes of Action pled in the Amended Complaint all derive from, and are dependent upon, the First and Second Causes of Action. When Plaintiffs responded in opposition to Defendants' summary judgment motion, they did not relinquish any claims raised in their Amended Complaint.

CONCLUSION

For the foregoing reasons, the Court should deny Defendants' Motion for Summary Judgment, grant Plaintiffs' Cross-Motion for Summary Judgment, grant Plaintiffs' Motion to

Supplement the Record and to Submit Extra-Record Documents, and deny Defendants' Motion to Strike Extra-Record Materials and Portions of Plaintiffs' Memorandum in Support of Cross-Motion for Summary Judgment that Rely Upon Extra-Record Materials.

/s/ Diane Curran
Diane Curran, Esq.
Harmon, Curran, Spielberg
& Eisenberg, LLP
1725 DeSales Street NW, Suite 500
Washington, D.C. 20036
Tel: (240) 393-9285
Email: dcurran@harmoncurran.com
Counsel for Plaintiffs

/s/ Terry J. Lodge
Terry J. Lodge, Esq.
Ohio Bar No. 0029271
316 N. Michigan St., Ste. 520
Toledo, OH 43604-5627
(419) 255-7552
Fax (440) 965-0708
tjlodge50@yahoo.com
Co-Counsel for Plaintiffs

CERTIFICATE OF SERVICE

I hereby certify that on December 20, 2016, I electronically filed the foregoing "PLAINTIFFS' REPLY MEMORANDUM IN SUPPORT OF THEIR CROSS-MOTION FOR SUMMARY JUDGMENT, IN SUPPORT OF MOTION TO SUPPLEMENT THE RECORD AND TO SUBMIT EXTRA-RECORD DOCUMENTS, AND IN RESPONSE TO DEFENDANTS' MOTION TO STRIKE EXTRA-RECORD MATERIALS AND PORTIONS OF PLAINTIFFS' MEMORANDUM" with the Clerk of the Court using the CM/ECF system, which will send notification of the filing to all parties.

/s/ Terry J. Lodge
Terry J. Lodge, Esq.
Co-Counsel for Plaintiff