ORAL ARGUMENT NOT YET SCHEDULED
No. 21-1162

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

OHIO NUCLEAR-FREE NETWORK and BEYOND NUCLEAR,
Petitioners,
v.
UNITED STATES NUCLEAR REGULATORY COMMISSION and
UNITED STATES OF AMERICA,
Respondents,
and
AMERICAN CENTRIFUGE OPERATING, LLC,
Intervenor.

On Petition for Review of an Order of the
United States Nuclear Regulatory Commission

BRIEF OF FEDERAL RESPONDENTS

TODD KIM
Assistant Attorney General
JUSTIN D. HEMINGER
Attorney
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
justin.heminger@usdoj.gov
(202) 514-5442

MARIAN L. ZOBLER
General Counsel
ANDREW P. AVERBACH
Solicitor
ERIC V. MICHEL
Senior Attorney
Office of the General Counsel
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852
(301) 415-0932
eric.michel2@nrc.gov

April 27, 2022

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

In accordance with Circuit Rule 28(a)(1), Respondents United States Nuclear Regulatory Commission and the United States of America submit this certificate as to parties, rulings, and related cases.

(A) Parties, Intervenors, and Amici

Petitioners are Ohio Nuclear-Free Network and Beyond Nuclear. Respondents are the United States Nuclear Regulatory Commission and the United States of America. American Centrifuge Operating, LLC has been granted leave to intervene. There are no amici.

(B) Rulings under Review

Petitioners identify the following documents as the rulings under review:

(1) The June 11, 2021, letter from the NRC to Centrus Energy Corporation, transmitting approval of a license amendment request to produce high-assay low-enriched uranium (JA___);

(2) The public version of the amended license, dated June 11, 2021 (JA___);

(3) The NRC's Environmental Assessment and finding of no significant impact, dated June 2021, prepared in support of the license amendment request (JA___).

(C) Related Cases

The case on review was not previously before this Court or any other court. There are no related cases pending in this Court or any other court.

/s/ Eric V. Michel
ERIC V. MICHEL
Counsel for Respondent
Nuclear Regulatory Commission

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Judicial Decisions

*Authorities upon which we chiefly rely are marked with asterisks.

Statutes

Regulations

Administrative Decisions

Federal Register Notices

GLOSSARY

NEPA	National Environmental Policy Act
NRC	Nuclear Regulatory Commission

INTRODUCTION

In May 2019, American Centrifuge Operating, LLC ("American Centrifuge") entered into a three-year contract with the Department of Energy to demonstrate its capability to produce "high-assay low-enriched uranium." In furtherance of this contract, American Centrifuge sought a license amendment from the Nuclear Regulatory Commission ("NRC")[1] to produce this enriched uranium at a location where the company already possessed an NRC license for a never-completed commercial enrichment facility. After performing a safety review of the application under the Atomic Energy Act and completing an Environmental Assessment pursuant to the National Environmental Policy Act ("NEPA"), the NRC granted the license amendment request.

Ohio Nuclear-Free Network and Beyond Nuclear (collectively, "Petitioners") challenge the NRC's approval of the license amendment. But the Court need not grapple with Petitioners' assertions because they have voluntarily bypassed their opportunity to seek a hearing on these issues before the NRC, which is a jurisdictional and statutory predicate to obtaining judicial review under the Hobbs Act. The Court therefore should dismiss the Petition for Review for lack of subject-matter jurisdiction.

[1] As used herein, the term "NRC" refers generically to the agency, while the term "Commission" refers specifically to the collegial body, currently comprised of three members, that oversees the agency.

In any event, the record demonstrates that both the NRC's decision to prepare an Environmental Assessment, rather than an Environmental Impact Statement, and the scope of the NRC's environmental review were reasonable. Petitioners incorrectly characterize the NRC's approval of this particular license amendment as the initiation of a "much larger industrial campaign" and federal policy that will generate high volumes of enriched uranium. But all that the NRC has approved is a license amendment request enabling American Centrifuge to enrich uranium for the Department of Energy, in specified quantities and for a specified period of time. The NRC is not a participant in any broader federal policy or program beyond its licensing decision. Petitioners also make vague assertions that the NRC ignored the impacts of "terrorism" and "proliferation" in its Environmental Assessment, though the record demonstrates no error. Thus, if the Court does not dismiss the Petition for Review for lack of jurisdiction, it should deny the Petition on the merits.

JURISDICTIONAL STATEMENT

This Court has jurisdiction under the Hobbs Act, 28 U.S.C. § 2342(4), to review "final orders" of NRC proceedings described in Section 189(a) of the Atomic Energy Act, which includes proceedings for the amendment of a license. 42 U.S.C. § 2239(a), (b). Only a "party aggrieved" by the final order may seek judicial review, within sixty days of its entry. 28 U.S.C. § 2344. The NRC issued

the license amendment in question on June 11, 2021, and Petitioners filed their Petition for Review with this Court within sixty days. However, as explained in Argument Section I *infra*, neither of the Petitioners is a "party aggrieved" within the meaning of the Hobbs Act, and this Court should dismiss the Petition for Review.[2]

STATEMENT OF THE ISSUES

1. Are Petitioners "parties aggrieved" by the outcome of this NRC licensing proceeding, when their participation before the agency was limited to the submission of a letter to agency staff, rather than seeking intervention as "parties" in the licensing proceeding as required by the Atomic Energy Act, the Hobbs Act, and the NRC's implementing regulations?

2. Must the NRC have expressly discussed "terrorism" and "nuclear proliferation" in its Environmental Assessment, when NEPA does not require such discussion and the NRC nonetheless considered "accidents" generally in the context of its NEPA evaluation?

[2] Respondents moved this Court to dismiss the Petition for Review for lack of jurisdiction or, in the alternative, for failure to exhaust a mandatory statutory requirement. Motion to Dismiss, ECF Document No. 1914682 (Sept. 20, 2021). The Court referred that motion to the merits panel and directed parties to address the issue in their briefs. Order, ECF Document No. 1931569 (Jan. 20, 2022).

3. Must the NRC have included in its Environmental Assessment the potential indirect impacts of its licensing decision on the domestic uranium mining industry, when the agency determined that large scale commercial production of enriched uranium was not a reasonably foreseeable outcome of its decision to authorize more limited enrichment activity?

4. Did the NRC unreasonably segment its environmental analysis or fail to prepare a broader "programmatic" environmental review of its licensing decision, when the NRC is not a participant in any broader federal efforts to support the commercial development or feasibility of advanced nuclear reactor fuel and its role is limited to review and approval of the license amendment request it received?

STATUTES AND REGULATIONS

The text of pertinent statutes and regulations is set forth in an addendum filed contemporaneously with this brief.

STATEMENT OF THE CASE

This Petition for Review concerns the NRC's approval of a license amendment request authorizing American Centrifuge to operate a series of uranium enrichment centrifuges and to produce high-assay low-enriched uranium at the American Centrifuge Plant in Piketon, Ohio. Below we provide relevant statutory and regulatory background, as well as a brief summary of the technology

involved and the historic background of the American Centrifuge Plant, before turning to the NRC's approval of the license amendment in question.

I. Statutory and Regulatory Background

A. The Atomic Energy Act

The Atomic Energy Act authorizes the NRC to license and regulate the possession of natural uranium (referred to in the statute as "source material") after removal from its place of deposit in nature. 42 U.S.C. §§ 2014(z), 2092. Natural uranium contains very small amounts (typically less than one percent) of uranium-235, the isotope needed to sustain a nuclear reaction via fission. Environmental Assessment p. 5, JA___. Thus, in order to be used as fuel in a nuclear reactor, uranium needs to be enriched in the isotope 235, generally to 4-5 percent. *Id.*, JA___. Enriched uranium falls within the category of "special nuclear material," which the Atomic Energy Act also tasks the NRC with licensing and regulating. 42 U.S.C. §§ 2014(aa), 2073. NRC regulations in 10 C.F.R. Part 70 establish the requirements for the NRC to issue a license to operate a uranium enrichment facility.

In addition to its licensing responsibilities, the NRC is also required by Section 189 of the Atomic Energy Act to provide the opportunity for a hearing, "upon the request of any person whose interest may be affected by the proceeding," when (among other things) the agency grants or amends a license.

42 U.S.C. § 2239(a)(1)(A). In order to carry out this statutory mandate, the NRC has promulgated comprehensive procedures in 10 C.F.R. Part 2, detailing when and how members of the public can seek a hearing with respect to an NRC licensing action. These regulations state that any person "who desires to participate as a party" in an NRC proceeding "must file a written request for hearing and a specification of the contentions which the person seeks to have litigated in the hearing." 10 C.F.R. § 2.309(a). "Contentions" (i.e., statements of law or fact to be raised or controverted) must satisfy the requirements of 10 C.F.R. § 2.309(f) in order to initiate an NRC hearing.

Paragraph (b) of section 2.309 specifies the timing for submitting a hearing request, depending on the type of notice that the NRC has provided. Specifically, this regulation states that in proceedings where a Federal Register notice has not been published,[3] hearing requests may be submitted within sixty days after notice of the application has been published on the NRC's public web site, or within sixty days after the hearing requestor receives actual notice of the license application,

[3] Some NRC licensing proceedings are required by statute to be noticed in the Federal Register. *See, e.g.,* 42 U.S.C. § 2239(a)(2)(B) (requiring Federal Register notice of issued or proposed amendments to nuclear power reactor facility licenses that involve "no significant hazards"). The NRC may also commit via regulation to publish certain actions in the Federal Register. *See, e.g.,* 10 C.F.R. § 2.1301(b) (stating that the Commission will publish in the Federal Register notice of the receipt of an application to transfer ownership of certain kinds of licenses).

whichever is later (potentially up to sixty days after the agency has taken action on the application). 10 C.F.R. § 2.309(b)(4).

B. NEPA

The Commission has also issued regulations in 10 C.F.R. Part 51 implementing NEPA, which requires agencies to prepare an Environmental Impact Statement prior to taking any major federal action significantly affecting the quality of the environment. 42 U.S.C. § 4332. NRC's Part 51 regulations define specific kinds of licensing or regulatory actions that require an Environmental Impact Statement. 10 C.F.R. § 51.20(b). With limited exception not relevant here, amendments to existing licenses are not included. Licensing and regulatory actions that are not specifically identified as requiring an Environmental Impact Statement (or otherwise categorically excluded from NEPA review) require an Environmental Assessment. *Id*. § 51.21. The purpose of an Environmental Assessment is to determine whether a federal action will have significant environmental impacts, thereby necessitating an Environmental Impact Statement; or no significant impacts, allowing the agency to proceed without preparing an Environmental Impact Statement. *Id*. §§ 51.31(a), 51.32.

II. History of the American Centrifuge Plant

The American Centrifuge Plant that is the subject of this Petition for Review has a lengthy licensing history with the NRC. We recount this history in order to

provide the Court with context for the NRC decision presently under review, as the NRC drew upon the environmental analyses performed in connection with these previously licensed activities when reaching its determination here.

The American Centrifuge Plant is located within a Department of Energy reservation on the same site as the former Portsmouth Gaseous Diffusion Plant, a facility where uranium enrichment took place beginning in the 1950s through 2001.[4] During the 1980s, the Department of Energy began installing centrifuges at this location and operated them briefly, as part of a demonstration gas centrifuge uranium enrichment facility. Safety Evaluation Report p. 3, JA___. Gas centrifuge technology, which is the process by which uranium is commercially enriched today, involves placing uranium hexafluoride gas in a cylinder that rotates at a high speed. The centrifugal force of the rotation separates lighter and heavier uranium isotopes, and the resulting gas enriched in the lighter isotope (uranium-235) is then fed into additional centrifuges until the desired level of enrichment is achieved. These interconnected centrifuge machines are referred to as "cascades." Environmental Assessment p. 5, JA___.

[4] "Gaseous diffusion" was the first commercial process used in the United States to enrich uranium, which involves feeding uranium hexafluoride gas through porous membranes to filter and separate lighter uranium isotopes from heavier ones. There are no longer any operating gaseous diffusion plants in the United States.

The Department of Energy discontinued its gas centrifuge enrichment activities at the Portsmouth site in the 1980s. Safety Evaluation Report p. 3, JA___. In 2004 it leased the area to the United States Enrichment Corporation, a subsidiary of USEC, Inc.,[5] to operate a facility known as the "Lead Cascade Facility." *Id.*, JA___. The purpose of this facility was to demonstrate the commercial viability of new centrifuge enrichment technology. *Id.*, JA___. The NRC licensed this facility in February 2004, authorizing the operation of a cascade of up to 240 gas centrifuges, in a closed-loop, to demonstrate enrichment of uranium-235 up to 10 percent. Environmental Assessment p. 2, JA___. Prior to issuing the license, the NRC prepared an Environmental Assessment, which concluded that the environmental impacts would not be significant and an Environmental Impact Statement was not warranted. 2004 Environmental Assessment, JA___-___. The Lead Cascade Facility operated from 2007 to 2016. Environmental Assessment p. 2, JA___.

[5] The United States Enrichment Corporation was originally created by Congress as a government-owned corporation for the purpose of, among other things, leasing Department of Energy facilities to produce and sell enriched uranium. Pub. L. No. 102-486, § 901, 106 Stat. 2924 (1992). The corporation was privatized in 1998 and became a subsidiary of USEC, Inc., later renamed Centrus Energy Corp in 2014. American Centrifuge (the current licensee) is a wholly owned subsidiary of Centrus Energy Corp.

In August 2004, USEC, Inc. submitted an application to the NRC, seeking a license to construct and operate a gas centrifuge enrichment facility, to be known as the American Centrifuge Plant, located within leased space on the same Portsmouth site. But unlike the Lead Cascade Facility (a closed-loop test and demonstration facility), the intended purpose of the American Centrifuge Plant was to enrich uranium that could then be used in commercial fuel for nuclear power reactors. By statute this required an Environmental Impact Statement (42 U.S.C. § 2243(a)), which the NRC prepared and in which the agency evaluated the environmental impacts of the proposed facility and its reasonable alternatives. 2006 Environmental Impact Statement, JA___-___. The NRC also completed a comprehensive safety, security, safeguards, and financial review of the application, and it held an administrative hearing before issuing the license in April 2007. *USEC Inc.* (American Centrifuge Plant), LBP-07-6, 65 NRC 429 (2007) (2007 WL 2219642).[6] The license authorized the operation of roughly 11,500 centrifuges to enrich uranium-235 up to 10 percent, over a period of 30 years. Environmental Assessment p. 2, JA___. However, USEC, Inc. never conducted any significant construction of the American Centrifuge Plant, though the current licensee

[6] Section 193 of the Atomic Energy Act requires the Commission to conduct a single adjudicatory hearing on the record prior to the issuance of a license for the construction and operation of a uranium enrichment facility, regardless of whether any third parties challenge the issuance of the license. 42 U.S.C. § 2243.

(American Centrifuge, which obtained the license via transfer in 2013) still maintains the license for this never-completed facility. *Id.* pp. 1-3, JA___-___.

In sum, the location of the facility where the uranium enrichment that is the subject of this Petition for Review is to take place is the same location where uranium enrichment previously occurred for decades. The NRC has twice previously evaluated proposed gas centrifuge enrichment activities under NEPA at the site, once for a small demonstration-only facility and once again for a larger commercial facility.

III. American Centrifuge Application and NRC Review

In October 2019, American Centrifuge signed a three-year contract with the Department of Energy to demonstrate the capability to produce "high-assay low-enriched uranium," enriched in uranium-235 up to 19.75 percent, via a 16-centrifuge cascade (the "Demonstration Program"). Safety Evaluation Report p. vi, JA___. High-assay low-enriched uranium is the anticipated source of fuel for several future advanced nuclear reactor designs. Unlike the fuel used in the existing fleet of commercial reactors (enriched in uranium-235 up to 5 percent), high-assay low-enriched uranium consists of uranium-235 enriched between 5 and 20 percent. It is not currently commercially produced or available in the United States. Environmental Assessment pp. 4-5, JA___-___. The stated objective of the Demonstration Program according to the contract is to demonstrate American

Centrifuge's capability to produce high-assay low-enriched uranium with existing technology, and by the end of the contract period to produce between 200 and 600 kilograms of such enriched uranium for the Department of Energy's future use in research and development activities. Safety Evaluation Report p .1, JA___.

Beginning in December 2019, American Centrifuge began submitting application materials to the NRC in support of a request to amend the license for the American Centrifuge Plant. *Id*., JA___. Although American Centrifuge possessed two distinct licenses to engage in uranium enrichment activities at this location, neither authorized enrichment up to 19.75 percent. Environmental Assessment pp. 2-3, JA___-___. Thus, American Centrifuge submitted a license amendment request, consisting of updated safety, security, and environmental information from the previously-approved license application for the American Centrifuge Plant, seeking authorization for the Demonstration Program. Safety Evaluation Report pp. 1-2, JA___-___. The NRC posted notice of the license amendment request on its public website in January 2020.

A. Environmental Assessment and Finding of No Significant Impact

The NRC published an Environmental Assessment in June 2021, which concluded that the Demonstration Program would not result in any significant environmental impacts. *American Centrifuge Operating, LLC; American Centrifuge Plant*, 86 Fed. Reg. 31,539 (June 14, 2021).

Because the NRC had previously performed NEPA environmental analyses for both the Lead Cascade Facility (a 240-centrifuge enrichment demonstration project) and the American Centrifuge Plant (an approximately 11,500-centrifuge commercial enrichment facility) located on the same Portsmouth site, the NRC limited the scope of its Environmental Assessment of the Demonstration Program (a 16-centrifuge demonstration project) to determine whether it would result in new or additional impacts that had not been previously evaluated. Environmental Assessment p. 3, JA___. Although the Demonstration Program was being proposed as a three-year enrichment operation, the NRC's Environmental Assessment considered the environmental impacts of operating the cascade for an additional ten years, based on statements from American Centrifuge indicating its intent to seek an extension via another license amendment request. *Id.* p. 4, JA___.

The NRC concluded that approval of the Demonstration Program would not result in any significant impacts. This conclusion was based on several factors. First, the Demonstration Program would take place inside existing buildings and not involve new construction at the site. *Id.* p. 11, JA___. Additionally, the NRC determined that public and occupational health and safety risks (from both radiological and non-radiological hazards) would not be significant. *Id.* pp. 16-18, JA___-___. This was consistent with prior findings in the earlier NRC

environmental reviews at the site, both of which considered larger enrichment operations. *Id.*, JA___-___.

The NRC also concluded that the Demonstration Program did not raise any new types of accident scenarios or otherwise increase the likelihood or consequences of accidents at the site beyond what had been previously evaluated. *Id.* pp. 18-19, JA___-___. Additionally, the NRC determined that wastes generated by the Demonstration Program would be of the same type previously evaluated as not having significant environmental impacts. *Id*. pp. 19-20, JA___-___. It likewise determined that transportation impacts during the Demonstration Program would amount to a fraction of the shipments previously analyzed within the Environmental Impact Statement for the American Centrifuge Plant, in which such impacts during operations had been determined to be small. *Id.* p. 20, JA___.

B. Safety, Security, and Safeguards Evaluation

In addition to its Environmental Assessment, prior to issuing the license the NRC also completed a comprehensive safety evaluation of the license amendment request, ensuring its conformance with all applicable NRC safety regulations. Safety Evaluation Report, JA___-___. NRC regulations in 10 C.F.R. Part 73 impose physical protection requirements on licensees possessing or transporting special nuclear material in quantities determined to be of "strategic significance," including protection against acts of radiological sabotage or theft or diversion.

Additionally, NRC regulations in 10 C.F.R. Part 74 impose strict recordkeeping and reporting requirements on licensees who possess or transfer quantities of special nuclear material, ensuring that all material is tracked and its location continuously verified. These regulations, among others, form the backbone of the NRC's domestic security and safeguards program, which protects against the diversion of special nuclear material for proliferation or clandestine purposes and ensures the common defense and security.

As relevant here, the NRC's Safety Evaluation Report for the Demonstration Program concluded that American Centrifuge's license amendment application satisfied all applicable NRC regulations concerning:

- the likelihood of, and measures to protect against, hazards or accidents, including criticality events (i.e., an accidental fission chain reaction) (*id.* pp. 38, 44, 60, 81 , JA___, ___, ___, ___);
- the monitoring and control of environmental effluents, and protection against radiation for both workers and the public (*id.* pp. 44, 82, JA___, ___);
- implementation of measures for the physical protection of special nuclear material (*id.* p. 101, JA___);
- adequacy of protection against fires and explosions that could present radiological or chemical risks (*id.* pp. 72, 81, JA___, ___); and

- procedures for American Centrifuge's reporting and recordkeeping obligations under its "material control and accounting" plan, to prevent and immediately detect the loss of any special nuclear material (*id.* p. 100, JA___).

The NRC's Environmental Assessment also cited this review performed within the Safety Evaluation Report when discussing impacts from "accidents." It concluded that the Demonstration Program would not create new or different accident types or risks than what the NRC had previously evaluated. Environmental Assessment p. 19, JA__.

IV. Letter from Petitioners

On March 30, 2021, Ohio Nuclear-Free Network submitted a letter to the NRC via email (on behalf of numerous additional organizations, including Beyond Nuclear), requesting that the NRC take certain actions with respect to its review of the license amendment application. Petitioners' Letter, JA___. Specifically, the letter requested that the agency conduct a "nonproliferation review of the nuclear weapons, international and domestic terrorism implications," and "prepare a Programmatic Environmental Impact Statement" rather than an Environmental Assessment. *Id.*, JA___. The NRC staff responded via email on May 28, 2021, stating that, in accordance with the agency's normal licensing process, it was planning to complete its Environmental Assessment and Safety Evaluation Report

in June 2021 before making a final decision on the license amendment request. NRC Response, JA___-___. The response also directed the organizations to public NRC webpages that provided further information relating to the topics raised in their letter. *Id.*, JA___-___.

Petitioners did not submit a hearing request to the agency and did not submit anything further to the NRC after the March 2021 letter. After completing the Environmental Assessment and Safety Evaluation Report in June 2021, the NRC issued the license amendment on June 11, 2021. NRC Approval, JA___. The amended license authorizes American Centrifuge to operate a 16-centrifuge cascade, enriching uranium up to 25 percent within established possession limits.[7] On August 2, 2021, Ohio Nuclear-Free Network and Beyond Nuclear filed their Petition for Review in this Court.

SUMMARY OF ARGUMENT

1. The Court should dismiss the Petition for Review because Petitioners are not "parties aggrieved" within the meaning of the Hobbs Act, which is a statutory predicate to this Court exercising jurisdiction. The Hobbs Act vests

[7] Although the purpose of the Demonstration Program is to produce uranium enriched up to 19.75 percent, the NRC set an upper limit of 25 percent to account for small process fluctuations. The license prohibits American Centrifuge from extracting uranium enriched above 20 percent. NRC License SNM-2011, Amendment 15 p. 11, JA___.

jurisdiction in the federal courts of appeals exclusively to determine the validity of NRC final orders in proceedings described in 42 U.S.C. § 2239. Per that statute, and the NRC's implementing regulations in 10 C.F.R. Part 2, the NRC must grant an administrative hearing upon the request of a person "whose interests may be affected" by an NRC licensing proceeding, and admit such person as a "party" to the proceeding, provided they file a written hearing request that includes at least one admissible contention.

This Court has consistently held that the "party aggrieved" language in the Hobbs Act requires the petitioners seeking judicial review to have sought to become parties to the agency proceeding by participating via the appropriate and available administrative procedure. Neither Petitioner sought a hearing before the NRC while the license amendment application was pending before the agency, despite demonstrating actual knowledge of the pending application with ample time to seek a hearing. Petitioners' submission of a letter to the NRC staff reviewing the application did not render them "parties" to the licensing proceeding in lieu of a hearing request. This Court has made clear that where, as here, intervention in an adjudication is a prerequisite to participation, judicial review is not available for those who did not seek to participate. To hold otherwise would vitiate the statutory scheme Congress has established, in which it channeled judicial review of NRC licensing decisions through the hearing opportunity

afforded via the Atomic Energy Act. Petitioners' arguments to the contrary would amount to this Court exercising general jurisdiction, under the Hobbs Act, to review the NRC's compliance with NEPA.

2. Even if the Court were to review the NRC's decision on the merits, the agency's decision to prepare the Environmental Assessment rather than an Environmental Impact Statement was reasonable. Petitioners do not directly challenge the NRC's finding of no significant impact, focusing instead on several potential impacts they contend the NRC should have examined. But the record demonstrates that these impacts were either properly addressed or were too remote and speculative to require inclusion in the Environmental Assessment.

a. Petitioners primarily fault the NRC for not expressly analyzing "terrorism" and "nuclear proliferation" in its Environmental Assessment. But with respect to terrorism, NEPA does not require agencies to evaluate the environmental effects of the acts of third parties that do not have a reasonably close causal relationship to the proposed action. And in any event, the NRC considered the environmental effects of "accidents" generally in its Environmental Assessment and concluded that the Demonstration Program did not increase the scope or likelihood of accident scenarios previously evaluated. In doing so the agency incorporated the analyses from its separate Safety Evaluation Report, which confirmed the license amendment application's conformance with all applicable

NRC safety and security requirements designed to protect from acts of sabotage, theft, and diversion of nuclear material.

With respect to proliferation, Petitioners do not specify what exactly they expected the NRC to consider within the context of its NEPA evaluation, since "proliferation" by definition occurs abroad. NEPA does not obligate agencies to evaluate extraterritorial environmental impacts, nor does the NRC's approval of the Demonstration Program authorize the export of high-assay low-enriched uranium to foreign countries. Any future export of material enriched at the American Centrifuge Plant would be subject to further NRC approval and strict non-proliferation requirements. And to the extent Petitioners are referring to the effects of proliferation that will be experienced domestically, their arguments fail for the same reason as their arguments concerning terrorism.

b. Petitioners also allege that the NRC has neglected the indirect impacts that its decision may have on the domestic uranium mining industry. However, this Court's precedents concerning indirect impacts in NEPA analyses make clear that agencies need not engage in speculative evaluation of but-for chains of causation, especially where decisions made by other actors outside the purview of the agency further attenuate the causal link. Petitioners' arguments presume success of the Demonstration Program, emergence of a currently non-existent commercial market for high-assay low-enriched uranium, expanded production of

enriched uranium at the American Centrifuge Plant authorized via another license amendment, and decisions made by actors other than the NRC to permit increased domestic extraction of uranium to satisfy this demand. The NRC was not required to address these indirect impacts given that further expansion of enrichment activity at the American Centrifuge Plant would require additional NRC approval and environmental review and was speculative at the time the NRC licensed the more limited Demonstration Program.

c. Finally, the NRC did not impermissibly segment, or unreasonably limit, the scope of its environmental analysis by failing to prepare a "programmatic" Environmental Impact Statement. The NRC approved the only proposal before it, a license amendment application to produce a limited quantity of high-assay low-enriched uranium over a specified period of time for demonstration purposes. And the NRC expressly found that any future expansion to produce quantities of high-assay low-enriched uranium in excess of approved limits will require an additional license amendment and additional NEPA review. Petitioners allege that the NRC's approval is one step in a larger purported federal program to commercialize new advanced reactor fuel, but the NRC is not a participant in any such program and its statutory role as an independent health and safety regulator does not include such activity.

ARGUMENT

I. The Court should dismiss the Petition for Review because Petitioners are not "parties aggrieved" within the meaning of the Hobbs Act.

The Hobbs Act vests exclusive jurisdiction in the federal courts of appeals to review and determine the validity of certain agency actions. 28 U.S.C. § 2342. With respect to the NRC,[8] this includes all "final orders" that are made reviewable by Section 189 of the Atomic Energy Act, including (among other things) final orders for the "granting, suspending, revoking or amending of any license." *Id*. § 2342(4); 42 U.S.C. § 2239(a)(1)(A), (b)(1). Any "party aggrieved" by such an order—and only such a party—may file a petition for review in the federal courts of appeals within sixty days of entry of the final order. 28 U.S.C. § 2344. As explained below, Petitioners' failure to seek a hearing before the NRC necessitates dismissal of their Petition for Review, because under this Court's precedents neither Ohio Nuclear-Free Network nor Beyond Nuclear is a "party aggrieved."

[8] The Hobbs Act still refers to final orders of the "Atomic Energy Commission," the NRC's predecessor. The Energy Reorganization Act of 1974 abolished the Atomic Energy Commission and transferred all licensing and related regulatory functions to the newly created NRC. 42 U.S.C. § 5841(a), (f).

A. Dismissal is required because Petitioners were never "parties" to the NRC's licensing proceeding.

This Court has "consistently held" that the "party aggrieved" language in the Hobbs Act "requires that petitioners have been parties to the underlying agency proceedings." *ACA Int'l v. FCC*, 885 F.3d 687, 711 (D.C. Cir. 2018) (citing *Simmons v. ICC*, 716 F.2d 40 (D.C. Cir. 1983)). Indeed, this Court has expressly held, in the context of the Atomic Energy Act, that "participating in the appropriate and available administrative procedure" is the "statutorily prescribed prerequisite" to invocation of the Court's jurisdiction, and that petitioners who were never "parties" (or who never sought to become "parties") to the underlying proceeding cannot obtain judicial review under the Hobbs Act. *Gage v. AEC*, 479 F.2d 1214, 1217-18 (D.C. Cir. 1973); *see also Bullcreek v. NRC*, 359 F.3d 536, 540 (D.C. Cir. 2004) ("The Hobbs Act requires that a party participate in the underlying agency proceeding . . ."); *Prof'l Reactor Operator Soc'y v. NRC*, 939 F.2d 1047, 1049 n.1 (D.C. Cir. 1991) (petitioners who did not participate in NRC rulemaking proceeding by submitting comments were not "parties aggrieved").

Here, Petitioners' sole participation before the agency was their March 2021 letter to the NRC staff. Section 189 of the Atomic Energy Act entitles persons "whose interest may be affected" by an NRC licensing proceeding to be admitted as a "party to such proceeding." 42 U.S.C. § 2239(a)(1)(A). And the NRC's rules of adjudicatory procedure permitted Petitioners to seek a hearing within sixty days

of receiving actual notice of the license amendment application. 10 C.F.R. § 2.309(b)(4). But Petitioners never sought to become "parties" to the proceeding by filing the requisite hearing request supported by admissible contentions. They are thus jurisdictionally barred by the "party aggrieved" requirement in the Hobbs Act from challenging the NRC's final licensing decision. *See NRDC v. NRC*, 823 F.3d 641, 643 (D.C. Cir. 2016) ("To challenge the Commission's grant of a license renewal, then, a party must have successfully intervened in the proceeding *by submitting adequate contentions* under 10 C.F.R. § 2.309.") (emphasis added).[9]

If the Court were to hold otherwise and permit Petitioners to seek judicial review under these circumstances, it would vitiate the statutory scheme Congress has established. That scheme expressly channels judicial review of NRC licensing decisions through the hearing opportunity afforded via the Atomic Energy Act. *See Quivira Mining Co. v. EPA*, 728 F.2d 477, 481 (10th Cir. 1984) (In enacting the Atomic Energy Act and channeling judicial review of licensing decisions to the courts of appeals, Congress created a "coherent plan for the development and

[9] Even if Petitioners were denied a hearing request (e.g., failure to propose an admissible contention), such a denial would have been appealable to the Commission (10 C.F.R. § 2.311(c)), and that outcome reviewable in this Court under the Hobbs Act. *See, e.g.*, *NRDC*, 823 F.3d at 642 (reviewing the NRC's denial of a hearing request); s*ee also Alaska v. FERC*, 980 F.2d 761, 763 (D.C. Cir. 1992) (remedy for denial of intervention as a matter of right is interlocutory review of order denying intervention, rather than review of final judgment on the merits).

regulation of nuclear energy" that would enable "prompt implementation of national nuclear policy.")

Adoption of Petitioners' position would also render entirely optional the NRC's comprehensive adjudicatory procedures in 10 C.F.R. Part 2, which the NRC has promulgated in furtherance of its statutory obligation to make hearings available. The NRC relies on these procedures, particularly the contention admissibility requirements in 10 C.F.R. § 2.309(f), to ensure that agency adjudications are appropriately focused on "substantive safety or environmental issues that raise a supported dispute with the application on a matter material to the NRC's decision." *Entergy Nuclear Operations Inc.* (Indian Point Nuclear Generating Station), CLI-21-1, 93 NRC 1 (2021) (2021 WL 194859). These procedures also ensure that concrete issues are presented to the Court upon judicial review. NRC decisions denying a hearing request or admission of a contention from a potential party are accompanied by an administrative order explaining the factual or legal basis for why the issue was deemed not appropriate for adjudication. As explained further *infra*, Argument Section II, this Petition for Review exemplifies the importance of these requirements, in that Respondents are countering vague assertions of omissions from the agency's environmental review without an adjudicatory record from which the basis for the agency's positions on particular issues are readily explained. This Court should not countenance an

attempt to "sidestep the administrative process," *Malladi Drugs & Pharm., Ltd. v. Tandy*, 552 F.3d 885, 891 (D.C. Cir. 2009), or encourage the "flouting" or "disregard" of agency procedures by litigants who voluntarily bypass or choose not to exhaust mandatory administrative remedies. *See Vermont Dep't of Pub. Serv. v. U.S.*, 684 F.3d 149, 157-58 (D.C. Cir. 2012); *Boivin v. U.S. Airways, Inc.*, 446 F.3d 148, 155 (D.C. Cir. 2006).

To be sure, in *Vermont Department of Public Service*, 684 F.3d at 156, this Court stated that the language of the Hobbs Act does not impose a jurisdictional exhaustion requirement, albeit in a different context—issue exhaustion. In that case, which concerned the renewal of a nuclear power plant license, the petitioners had in fact sought an administrative hearing before the NRC and pursued judicial review after its conclusion. However, the petitioners raised a claim before the Court that had never been raised before the agency. This Court held that, although the Hobbs Act did not state in "clear, unequivocal terms" that consideration of the new claim was statutorily barred, the discretionary doctrine of "non-jurisdictional exhaustion" nonetheless warranted denial of the petition for review. *Id*. at 157-60. In other words, *Vermont Department of Public Service* addresses whether there are jurisdictional boundaries on what claims a "party aggrieved" can raise in federal court, not whether "party aggrieved" status constitutes a jurisdictional requirement, as suggested by *ACA International*, 885 F.3d at 711.

But even if this Court were to determine that dismissal of the Petition for Review is not required as a matter of jurisdiction, the Court should at minimum dismiss the Petition as a matter of "non-jurisdictional, mandatory exhaustion." In *Fleming v. U.S. Dep't of Agriculture*, 987 F.3d 1093, 1098-99 (D.C. Cir. 2021), this Court explained the difference between "jurisdictional exhaustion," which a court must enforce regardless of whether it is raised by a party, and "non-jurisdictional, mandatory exhaustion," which constitutes an affirmative defense that, once raised by the government, must be enforced. *Id*. Since this Court has consistently held that participation as a "party" in the underlying agency proceedings is a statutory prerequisite to judicial review under the Hobbs Act, *ACA Int'l*, 885 F.3d at 711, *Gage*, 479 F.2d at 1217, the Court must dismiss this Petition for Review, given that Federal Respondents have raised this mandatory requirement. *Fleming*, 987 F.3d at 1099.

B. The March 2021 letter did not make Petitioners "parties" to the NRC licensing proceeding.

Nor did Petitioners' March 2021 letter to the NRC confer "party" status or constitute a request for "party" status. Both the Atomic Energy Act and implementing NRC regulations are clear—anyone "whose interest may be affected by a proceeding" shall be admitted as a "party" to that proceeding upon request, 42 U.S.C. § 2239(a)(1)(A), and anyone "who desires to participate as a party must file

a written request for hearing" that satisfies the NRC's admissibility requirements. 10 C.F.R. § 2.309(a). Both organizations failed to file such a request.

Upon receipt, the NRC did not treat the letter as a request for a hearing, and for good reason. The letter—submitted by an attorney with experience practicing in NRC adjudicatory proceedings—made no mention of such a request, made no reference to the admissibility requirements in 10 C.F.R. § 2.309, and was emailed directly to an NRC staff member rather than submitted through the NRC's E-Filing system for adjudicatory hearings (*see* 10 C.F.R. § 2.302). The agency established no hearing docket, nor did it refer the letter to the Atomic Safety and Licensing Board Panel, both of which are standard actions upon the receipt of a hearing request.[10] 10 C.F.R. §§ 2.303, 2.308. The NRC treated the letter for what it was: correspondence from interested stakeholders, not a hearing request filed under the NRC's rules of procedure. And Petitioners never suggested otherwise before the agency.

Petitioners argue that the NRC's labeling of an entity as a "party" under its own regulations is not controlling, and that the Court, not the agency, "has the province to determine its own jurisdiction." Brief at 23-24. Respondents of course

[10] The Atomic Safety and Licensing Board Panel is a panel of administrative judges, appointed by the Commission, that is authorized to conduct hearings. 42 U.S.C. § 2241.

do not dispute that this Court is the ultimate determinant of its own jurisdiction. But Respondents' position—that seeking an administrative hearing before the agency is a mandatory prerequisite to judicial review of its licensing decisions—flows from the statutory command of Congress and this Court's precedents, as explained in Argument Section I.A of this brief.

This Court has held in other contexts that merely "submitting comments" or otherwise making a "full presentation of views to the agency" confers "party aggrieved" status under the Hobbs Act for litigants whose positions are then later rejected. *See ACA Int'l*, 885 F.3d at 711 (commenting in support of a petition for rulemaking filed by another party sufficient to obtain "party aggrieved" status). But this less stringent treatment is reserved for "agency proceedings that *do not require intervention as a prerequisite to participation*." *Id*. (emphasis added). NRC regulations could not make clearer that to intervene in an NRC licensing proceeding, one must seek a hearing in accordance with the NRC's rules of adjudicatory procedure. *See* 10 C.F.R. § 2.309(a)(1) ("Any person whose interest may be affected by a proceeding *and who desires to participate as a party* must file a written request for hearing[.]" (emphasis added)); *NRDC*, 823 F.3d at 643.

Petitioners are simply incorrect when they cite *Reytblatt v. NRC* and *Water Transport Association v. ICC* for the general proposition that "submission of comments" can confer "party aggrieved" status if "that avenue is available for

participation." Brief at 24. *Reytblatt* involved an agency proceeding for *rulemaking*, not adjudication, where submission of comments is the means for public participation. 105 F.3d 715, 720 (D.C. Cir. 1997); 5 U.S.C. § 553(c). And the Petitioners' reference to *Water Transport Association* excludes its key passage, in which the Court stated that "[w]hen intervention in agency adjudication or rulemaking is prerequisite to participation therein, standing to seek judicial review of the outcome will be denied to those who did not seek—or who sought but were denied—leave to intervene." 819 F.2d 1189, 1192-93 (D.C. Cir. 1987). This is such a case.

Petitioners assert that commenting on the NRC's Environmental Assessment should suffice to establish party status. Brief at 25. They reason that commenting in an NRC rulemaking proceeding confers "party" status under the Hobbs Act, and this Court in *Gage* stated that the Hobbs Act does not differentiate between "orders" that promulgate rules and "orders" in adjudicatory proceedings. Brief at 25; 479 F.2d at 1218. But the Court made this statement when rejecting the petitioners' argument that the Hobbs Act "party" status requirement should only apply to orders issued in NRC adjudications, not rules of general applicability. *Id.* at 1217-18 (noting that Section 189 of the Atomic Energy Act refers to both licensing proceedings as well as proceedings "for the issuance or modification of rules and regulations dealing with the activities of licensees"). That is, *Gage* did

not hold that "commenting" suffices for both NRC adjudications and NRC rulemakings; *Gage* held that "participating in the appropriate and available administrative procedure" is the "statutorily prescribed prerequisite" for judicial review of all NRC orders described in Section 189 of the Atomic Energy Act. *Id.* at 1217. For an NRC licensing proceeding, the "appropriate" administrative prerequisite is seeking a hearing under the NRC's rules of procedure in 10 C.F.R. Part 2, which implement the agency's statutory hearing mandate.

Lastly, Petitioners also rely extensively on *Massachusetts v. U.S.*, 522 F.3d 115 (1st Cir. 2008), for the proposition that, for purposes of the Hobbs Act, "party status" equates to "taking part in the administrative proceedings in any way available." Brief at 26-28. However, the *Massachusetts* decision uses much narrower language than what Petitioners advance. 522 F.3d at 131 (applying a "functional test" that asks whether the would-be petitioner "directly and actually" participated in the administrative proceeding). And the *Massachusetts* case arose out of a "regulatory maze," in which the Commonwealth mistakenly believed it had to attain "party" status in an NRC licensing proceeding (as opposed to participating as an "interested governmental entity," a distinct status in NRC adjudications reserved for such entities) in order to stay that licensing proceeding during the pendency of a separate petition for rulemaking. *Id.* at 118, 128. The NRC conceded in *Massachusetts* that judicial review would remain available for

the Commonwealth as an "interested governmental entity," which the agency deemed (and the Court agreed) was the "proper path" for the Commonwealth in the unusual procedural posture of that case. *Id.* at 118. *Massachusetts* is consistent with Respondents' position—that participation in the "appropriate and available administrative procedure" is a prerequisite to attaining "party aggrieved" status—and does not undermine the aforementioned holdings of *this* Court, which clearly state that judicial review will be denied for those who did not seek intervention *at all* in adjudicatory proceedings before the agency. *See NRDC*, 823 F.3d at 643; *ACA Int'l*, 885 F.3d at 711; *Water Transp. Ass'n*, 819 F.2d at 1192-93.

C. NEPA does not provide a "separate, ancillary" track for obtaining judicial review of an NRC licensing decision.

Petitioners argue that their claim is "governed by NEPA, not the Atomic Energy Act," and that the NRC cannot "limit [its] obligations under NEPA to the public" by "limit[ing] parties to intervening" in its licensing proceedings. Brief at 28-30. However, the underlying premise of this argument is incorrect as a matter of law and misconstrues the convergence of these two statutes in the context of an NRC licensing proceeding.

As an initial matter, it cannot be correct that Petitioners' claim is exclusively governed by NEPA and thereby is proceeding on a "separate, ancillary" track to the Atomic Energy Act for achieving "party" status. *See* Brief at 28-29. If that were true, the Court should dismiss the Petition straightaway, as its jurisdiction is

limited to review of final orders described in Section 189 of the Atomic Energy Act. 28 U.S.C. § 2342(4). The Hobbs Act does not provide the courts of appeals with general jurisdiction to review the NRC's compliance with NEPA, divorced from the results of a licensing proceeding. Nor does NEPA contain an independent grant of subject-matter jurisdiction to this Court. Petitioners' exclusive avenue for seeking judicial review is as parties aggrieved by an NRC final order.

As explained above, it is Petitioners' failure to attempt to participate as "parties" in the licensing proceeding that warrants dismissal of the Petition for Review. Either organization could have sought a hearing, challenging the comprehensiveness of environmental information included in American Centrifuge's application, or the sufficiency of the NRC's environmental review. *See* 10 C.F.R. § 2.309(f)(2) (permitting contentions on issues arising under NEPA, preliminarily against the applicant's environmental report,[11] with the opportunity to file new or amended contentions challenging the NRC staff's NEPA analysis once it becomes available); *see also Union of Concerned Scientists v. NRC*, 920 F.2d 50, 56-57 (D.C. Cir. 1990) (rejecting facial challenge to NRC's procedural regulations,

[11] An "environmental report" is a document submitted to the NRC by a license applicant providing, among other things, a description of the proposed action and its potential environmental impacts, adverse environmental effects which cannot be avoided, and alternatives to the proposed action. The purpose of the environmental report is to provide information to assist the NRC staff in its independent NEPA review. *See* 10 C.F.R. §§ 51.14, 51.45.

including requirement that intervenors raise contentions arising under NEPA, to the extent possible, based upon the license applicant's environmental report). And had either organization sought a hearing, the final order concluding that proceeding would have been reviewable in this Court. *See NRDC*, 823 F.3d at 643-44 (reviewing the NRC's denial of a hearing request based on contentions arising under NEPA); *Alaska v. FERC*, 980 F.2d at 763.

Petitioners allege that the NRC's practice in this regard amounts to "procedural and evidentiary hurdles" to thwart public participation in the NEPA process. Brief at 30.[12] However, the NRC's procedures do not prevent public participation in any way, and in fact go beyond what is otherwise required by NEPA. It is well understood that NEPA itself does not provide any rights to a hearing, *Union of Concerned Scientists*, 920 F.2d at 56, or dictate particular substantive outcomes in agency decisions, *Sierra Club v. Dep't of Energy*, 867 F.3d 189, 196 (D.C. Cir. 2017). Yet with respect to NRC licensing proceedings, prospective parties with environmental concerns can obtain an evidentiary hearing

[12] Petitioners point to *Oglala Sioux Tribe v. NRC*, 896 F.3d 520, 532 (D.C. Cir. 2018) as further support for this proposition. However, in *Oglala Sioux Tribe* the Court reversed the NRC's decision to leave a license in effect, pending further proceedings, notwithstanding that the agency hearing revealed noncompliance with NEPA. *Oglala Sioux Tribe* did not admonish the NRC for requiring prospective parties to raise NEPA issues through the adjudicatory hearing process in 10 C.F.R. Part 2.

before an impartial agency adjudicator, who may require the NRC staff to consider additional information in its NEPA evaluation or even appropriately condition a license as necessary based on the hearing results. *See, e.g., NRDC v. NRC*, 879 F.3d 1202, 1210 (D.C. Cir. 2018) (challenge to final order in NRC licensing proceeding where hearing before the Atomic Safety and Licensing Board resulted in a revised license condition). This Court has held that the NRC must provide an opportunity for a hearing with respect to all issues that are "material" to its licensing decision. *Union of Concerned Scientists v. NRC*, 735 F.2d 1437, 1447-48 (D.C. Cir. 1984). As such the NRC has designed its licensing hearing process to include within its scope statutes other than the Atomic Energy Act, such as NEPA, that impose requirements on the NRC when it issues a license. Petitioners characterize this arrangement as the NRC imposing unique barriers on its NEPA process, when in actuality it provides unique opportunity for administrative litigants.

Petitioners are thus plainly incorrect when they assert that "the only means by which an administrative record can be made in a NEPA case" is through commenting on agency NEPA documents. Brief at 30-31. At the NRC, opportunity exists to actually adjudicate NEPA claims in agency licensing proceedings, and achieve substantive outcomes, through the administrative hearing process that Petitioners have bypassed. The NRC does not unreasonably limit the

avenues by which members of the public can participate in its NEPA analyses, and those who do not choose to intervene in a licensing proceeding can always make their views known to the agency by less formal means, just as Petitioners did in this case.[13] But, by Congressional design and this Court's Hobbs Act precedents, intervention and participation in the licensing proceeding is a statutory prerequisite and the sole "track" that preserves the possibility of judicial review of the NRC's decision.

II. The NRC reasonably evaluated the environmental impacts of the Demonstration Program in its Environmental Assessment.

A. Standard of Review

If the Court does not dismiss the Petition for the reasons stated above and reviews the NRC's decision on the merits, its inquiry in reviewing the NRC's decision not to prepare an Environmental Impact Statement must be "limited" in nature and designed primarily to ensure that the agency has not ignored any

[13] On this point Petitioners argue that they only learned of the license amendment "by chance" and that the NRC failed to comply with regulations issued by the Council on Environmental Quality by not providing a formal comment period before issuing its Environmental Assessment. Brief at 10, 28. However, this Court has noted that agencies have "significant discretion in determining when public comment is required" with respect to an environmental assessment. *Taxpayers of Michigan Against Casinos v. Norton*, 433 F.3d 852, 861 (D.C. Cir. 2006). Beyond pointing to the regulation, Petitioners neither assert that the NRC abused its discretion nor contend that the agency's decision—of which they had actual knowledge—prejudiced their ability to make their views known to the agency.

arguably significant consequences. *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1322 (D.C. Cir. 2015). And while the Court has fashioned a four-factor test to aid in this inquiry, *see id.*, the scope of review remains "the usual one" for judicial review of administrative action—whether the agency decision is "arbitrary, capricious, or an abuse of discretion." *Sierra Club v. Antwerp*, 661 F.3d 1147, 1154 (D.C. Cir. 2011); *see also Sierra Club v. FERC*, 867 F.3d 1357, 1367-68 (D.C. Cir. 2017) (Court's review of agency compliance with NEPA is "limited" and intended to "ensure that the agency has adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary and capricious"). This is a "highly deferential" standard where agency actions are presumed to be valid. *Defenders of Wildlife v. Jewell*, 815 F.3d 1, 9 (D.C. Cir. 2016). An agency acts arbitrarily if it "entirely failed to consider an important aspect of the problem" or "offered an explanation for its decision that runs counter to the evidence before the agency." *Am. Petroleum Inst. v. EPA*, 684 F.3d 1342, 1350 (D.C. Cir. 2012).

The NEPA process "involves an almost endless series of judgment calls," and the "line-drawing decisions necessitated" by that process "are vested in the agencies, not the courts." *Duncan's Point Lot Owners Ass'n, Inc. v. FERC*, 522 F.3d 371, 376 (D.C. Cir. 2008). In preparing the Environmental Assessment, the NRC reasonably exercised its expert judgment and the record demonstrates no

error in the NRC's treatment of the issues raised by Petitioners. As discussed below, the NRC was not required to expressly consider the impacts of terrorism and nuclear proliferation in its NEPA analysis, and in any event, the NRC's Environmental Assessment addressed the likelihood and range of accident scenarios at the American Centrifuge Plant, incorporating information from previous environmental analyses and the NRC's separate safety evaluation of the Demonstration Program. And with respect to potential impacts on the domestic uranium supply chain, the NRC was not required to address such impacts because it determined that full-scale commercial production of high-assay low-enriched uranium was a speculative outcome of the decision to authorize the more limited Demonstration Program. Thus, the NRC did not improperly ignore or fail to consider any significant impacts when preparing its Environmental Assessment.

B. The NRC was not required to expressly evaluate the potential impacts of "terrorism" or "nuclear weapons proliferation" in the context of its NEPA review.

In their March 2021 letter to the NRC, Petitioners requested that the NRC "conduct a nonproliferation review of the nuclear weapons, international and domestic terrorism implications of the [Demonstration Program]" and prepare a "programmatic" Environmental Impact Statement addressing these concerns. Petitioners' Letter p. 1, JA___. The NRC's response to Petitioners' letter directed them to information available on the NRC's public website, explaining that the

NRC's safety review of the license amendment application would verify compliance with NRC regulatory requirements concerning security and proliferation, including (among others) the physical protection of the facility and protection against sabotage and the theft or diversion of special nuclear material. NRC Response, JA__.

In June 2021, the NRC published its Safety Evaluation Report for the Demonstration Program, in which it concluded the license amendment application was in conformance with all applicable regulations. JA___-___. Nowhere in their brief do Petitioners acknowledge that, before issuing the license amendment, the NRC performed this review of the application under its safety, security, and domestic safeguards regulatory framework, which is designed to protect against such threats as terrorism or the loss, theft, or diversion of nuclear material. Instead, Petitioners fault the NRC for not expressly analyzing or considering the impacts from "terrorism and nuclear weapons proliferation" in the context of its *environmental* review of the license amendment application.

1. Terrorism

With respect to domestic terrorism, Petitioners cite to *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006), in which the Ninth Circuit held that the NRC violated NEPA by categorically declining to consider the environmental effects of a potential terrorist attack on a proposed nuclear facility.

Brief at 33-34. But as this Court has noted, based on Supreme Court precedent, a "reasonably close causal relationship" must exist between the proposed action and an alleged environmental effect to compel consideration in the agency's NEPA analysis. *Sierra Club v. FERC*, 827 F.3d 36, 47 (D.C. Cir. 2016) (quoting *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004)); *see also Metro. Edison Comp. v. People Against Nuclear Energy*, 460 U.S. 766, 774 n.7 (1983) (under NEPA courts must "draw a manageable line between those causal changes that may make an actor responsible for an effect and those that do not").

As the Third Circuit has recognized, when reaching the opposite conclusion as *Mothers for Peace*, terrorist attacks on an NRC-regulated facility require at least two intervening events (the act of a third-party criminal and the failure of all government agencies charged with preventing the attack) that render the causal chain "too attenuated to require NEPA review." *New Jersey Dep't of Envtl. Prot. v. NRC*, 561 F.3d 132, 140 (3rd Cir. 2009). In reaching this decision the Third Circuit noted that *Mothers for Peace* was contrary to the "reasonably close causal relationship" standard established by the Supreme Court, and that "no other circuit has required a NEPA analysis of the environmental impact of a hypothetical terrorist attack." *Id.* at 142-43 (citing *Glass Packaging Inst. v. Regan*, 737 F.2d 1083, 1091 (D.C. Cir. 1984), as well as decisions from the Second, Third, and Eighth Circuits).

In any event, the NRC's Environmental Assessment includes discussion on the impacts from "accidents" at the American Centrifuge Plant. Environmental Assessment pp. 18-19, JA___-___. Specifically, the Environmental Assessment notes that in the NRC's 2006 Environmental Impact Statement for the American Centrifuge Plant, the agency evaluated a "range of possible accidents" and included detailed evaluation of selected accident scenarios and associated human health impacts. *Id.* p. 19, JA___. In that prior Environmental Impact Statement, the NRC determined that accidents at the American Centrifuge Plant, if they were to occur, "would result in small to moderate impacts on workers, the environment, and the public." *Id.*, JA___. This conclusion was based on the facility's safety features and operating procedures which, in conformance with applicable NRC regulations, were designed to reduce the risks from accidents and limit impacts beyond the facility's boundaries. *Id.*, JA___.

Against this backdrop, the NRC reviewed the license amendment application for the Demonstration Program and "did not identify any new types of accident sequences or increases in the likelihood or consequences beyond what had been previously evaluated" when the American Centrifuge Plant was first licensed. Environmental Assessment p. 19, JA___. This review included the staff's evaluation of the updates to the "Integrated Safety Analysis" that American Centrifuge submitted with its license amendment application, which identified

credible internal facility events such as "explosions, spills, and fires," as well as credible external events, such as hazards from natural phenomena, that could result in "facility-induced consequences to workers, the public, or the environment." *Id.*, JA___; Safety Evaluation Report p. 31, JA___ (describing the Integrated Safety Analysis).

In short, although Petitioners fault the NRC's Environmental Assessment for not specifically using the word "terrorism," the agency did give a hard look at the various "accidents" and types of events (explosions, fires, external events) that might reasonably be associated with a terrorist attack. In doing so the NRC appropriately incorporated analysis performed in the context of its separate review of the safety of facility. This Court has recognized that the NRC may reasonably assume compliance with its regulatory standards when assessing the foreseeable environmental impacts of its decisions. *See New York v. NRC*, 824 F.3d 1012, 1023 (D.C. Cir. 2016). Petitioners have not challenged the substance of the agency's findings that granting the license amendment would create no significant impacts from the risk of accidents. And in any event, the NRC is not required under NEPA to analyze events that are dependent on an attenuated chain of events outside the agency's control, such as a terrorist attack. Petitioners' arguments concerning terrorism are thus unpersuasive.

2. Proliferation

In the same vein, Petitioners also fault the NRC for not expressly considering and addressing the impacts of "nuclear weapons proliferation" in its Environmental Assessment. Brief at 35. But on this point, Petitioners are not even clear on what *environmental* impacts it expected the NRC to evaluate in this context. Petitioners appear to believe that the NRC should have evaluated the potential *extraterritorial* environmental impacts of its domestic licensing decision (given that "proliferation" is generally understood to mean the spread of nuclear weapons or fissionable nuclear material to other countries). They argue that foreseeable end uses of the production of high-assay low-enriched uranium include exports to foreign nations, either the uranium itself in the form of fuel, or the export of advanced reactors capable of using it. Brief at 32; Petitioners' Letter p. 1-3, JA___-___. But the NRC need not evaluate environmental impacts felt in foreign nations even when approving exports *directly to those nations*. *See NRDC v. NRC*, 647 F.2d 1345, 1365-68 (D.C. Cir. 1981) (Wilkey, J.). The NRC's regulations implementing NEPA reflect this determination as well. *See* 10 C.F.R. § 51.1. ("These regulations do not apply to export licensing matters . . . or to any environmental effects which NRC's domestic licensing and related regulatory functions may have upon the environment of foreign nations."). The NRC can thus hardly be faulted for not evaluating the potential extraterritorial environmental

impacts of a decision to authorize enrichment of uranium in Ohio, and NEPA does not require the agency to do so.

Alternatively, Petitioners may mean that the NRC should have considered the *domestic* environmental impacts of the possible proliferation of nuclear weapons abroad (i.e., environmental impacts felt within the United States if uranium enriched at the American Centrifuge Plant were exported or diverted to a foreign nation, obtained by malevolent actors, and fashioned into a nuclear device). For the same reasons discussed above in the context of terrorism, this scenario would undoubtedly be "too far removed" to warrant inclusion in a NEPA evaluation, for it is dependent on a speculative chain of events with no "reasonably close causal relationship" to the NRC's licensing decision. *Metro. Edison*, 460 U.S. at 777; *Pub. Citizen*, 541 U.S. at 767. This ambiguity in Petitioners' argument exemplifies why the Court should dismiss the Petition and not excuse the failure to seek a hearing before the agency. The NRC's standards for contention admissibility in 10 C.F.R. § 2.309(f) require potential parties to plead with specificity. This in turn ensures clarity on what, exactly, the disputed issue is upon judicial review should those contentions be rejected.

In any event, the environmental review of the Demonstration Program's impacts on "proliferation" that Petitioners seek is unnecessary because the NRC's approval of the Demonstration Program does not in any way authorize the export

of high-assay low-enriched uranium outside the United States. Any future proposal to export uranium enriched at the American Centrifuge Plant would be a separate licensing action, subject to the requirements of the Atomic Energy Act, as amended by the Nuclear Non-Proliferation Act of 1978, and implemented in the NRC's regulatory framework governing exports in 10 C.F.R. Part 110. Exports of special nuclear material from the United States are subject to strict non-proliferation criteria, as reflected in these requirements. These include, among others, obtaining assurance that the material will be maintained under International Atomic Energy Agency safeguards and protected by adequate physical security measures; assurance that the material will not be retransferred or reprocessed without prior United States approval; and a finding that the export will not be inimical to the common defense and security of the United States or constitute an unreasonable risk to the health and safety of the public. *See* 10 C.F.R. § 110.42 (implementing the statutory export criteria in 42 U.S.C. §§ 2077(c)(2), 2156, 2157). These are the strict measures by which the United States government guards against nuclear proliferation, not through a speculative analysis of the environmental effects of "proliferation" generally at the time domestic enrichment activities are licensed.

Petitioners' only support from this circuit for the proposition that "nuclear proliferation and security issues have been part of NEPA decision making" is

Scientists' Institute for Public Information, Inc. v. AEC, 481 F.2d 1079 (D.C. Cir. 1973), wherein the Court required the Atomic Energy Commission to prepare an Environmental Impact Statement for its "liquid metal fast breeder reactor" program (notwithstanding that the program was in the research and development phase at the time). The decision itself does not mention terrorism or proliferation, and this Court has also stated that its reasoning likely has no remaining vitality.[14] Petitioners also cite to a 1983 district court decision, *West Michigan Envtl. Action Council, Inc. v. NRC*, 570 F.Supp. 1052 (W.D. Mich. 1983), a case concerning mootness and the awarding of attorney's fees where the NRC voluntarily elected to prepare an Environmental Impact Statement after the plaintiff had filed suit seeking a declaratory ruling to that effect. Neither this case, nor *Scientists' Institute*, imposes any duty on the NRC to consider the environmental impacts of terrorism or proliferation in a NEPA analysis.

[14] In *National Wildlife Federation v. FERC*, 912 F.2d 1471, 1478 (D.C. Cir. 1990), this Court observed that the key reasoning in *Scientists' Institute*—that "future, yet unproposed projects" should be considered in an Environmental Impact Statement "if the envisioned future projects would impact the relevant environment"—was likely supplanted by the Supreme Court's decision in *Kleppe v. Sierra Club*, which held that NEPA does not require an Environmental Impact Statement in the absence of an actual proposed federal action. 427 U.S. 390, 404-05 (1976). This is also consistent with current case law requiring agencies to include other potential projects within an Environmental Impact Statement only where those projects are "reasonably foreseeable." *Theodore Roosevelt Conservation P'ship v. Salazar*, 616 F.3d 497, 514 (D.C. Cir. 2010).

C. The NRC was not required to analyze the potential impacts of the Demonstration Program on domestic uranium mining.

Petitioners also argue that the NRC's Environmental Assessment should have considered the potential impacts on the domestic uranium supply chain, stating—without any reference to the record—that if the "demand for [high-assay low-enriched uranium] in national and international markets reaches the heights Centrus seems to anticipate, there will be significant effects on the moribund domestic mining industry." Brief at 36-37. In their March 2021 Letter to the NRC, Petitioners similarly stated that a programmatic Environmental Impact Statement was necessary to "explicate the prospective effects on uranium extraction" created by the Demonstration Program, which in Petitioners' view (without citation) will result in "much larger volumes of uranium mining." Petitioners' Letter p. 1, JA___. The NRC's Environmental Assessment did not consider potential impacts on domestic uranium mining activities, though the record demonstrates that the scope of impacts considered in the Environmental Assessment was reasonable.

The NRC limited its Environmental Assessment to the activities it deemed to be "reasonably foreseeable" by the license amendment application. The NRC focused on the proposed activity, which was operation of the Demonstration Program during the three-year contract term to produce high-assay low-enriched uranium up to specified quantity limits. Environmental Assessment p. 4, JA ___.

And based on statements from American Centrifuge, the NRC also analyzed the reasonably foreseeable future action that the company would submit an additional license amendment in the near future to seek authorization to operate the cascade for an additional 10 years. *Id*. p. 4, JA ___. The NRC candidly acknowledged that American Centrifuge had also indicated that it "would consider" seeking further approval to expand its operation with additional cascades in the future "if a commercial market for [high-assay low-enriched uranium] develops." *Id*. p. 4, 21, JA___, ___. But the NRC determined that this was too speculative a possibility to warrant inclusion in the Environmental Assessment. *Id.*, JA___, ___ ("Although the licensee is considering commercial production of [high-assay low-enriched uranium] in the future, it is uncertain whether the [Demonstration Program] would demonstrate that commercial production is feasible and whether there will be a need for this fuel product."). Petitioners' fault the NRC for not evaluating the possibility that the Demonstration Program will potentially result in increased domestic uranium mining, but the agency's approach is entirely consistent with this Court's precedents on the consideration of the indirect effects of agency actions under NEPA.

In *EarthReports, Inc. v. FERC*, for example, this Court held that the agency was not required to consider in its NEPA analysis the indirect effects that its decision (conversion of an import-only liquefied natural gas facility to a

mixed-use, import and export terminal) could have in inducing greater domestic production of natural gas. 828 F.3d 949, 955-56 (D.C. Cir. 2016). The Court reached in the same conclusion in *Sierra Club v. FERC*, where it held that the agency need not address increased domestic natural gas production as an indirect effect of its authorization to redesign a liquefied natural gas export facility. 827 F.3d at 47. In both cases, the Court affirmed that agencies need not examine under NEPA "everything for which the project could conceivably be a but-for cause," but instead must focus on those effects which are "sufficiently likely to occur that a person of ordinary prudence" would take them into account in reaching a decision. *EarthReports,* 828 F.3d at 955; *Sierra Club,* 827 F.3d at 46-47 (cleaned up). Additionally, in both cases the Court also rejected claims that the agency must consider the indirect effects of increased exports from the facilities, because a separate actor (the Department of Energy) retained sole authority to approve any increased exports, thus "break[ing] the NEPA causal chain" for the agency. *Sierra Club*, 827 F.3d at 47-48; *EarthReports*, 828 F.3d at 956.

These cases confirm that the NRC was not required to include consideration of the indirect impacts on domestic uranium mining in its Environmental Assessment. The express purpose of the Demonstration Program is for American Centrifuge to demonstrate the capability to produce high-assay low-enriched uranium, and to produce up to 600 kilograms of such uranium for the Department

of Energy's use in its research and development activities. Environmental Assessment p. 4, JA__. As Petitioners themselves acknowledge, there are not currently any licensed reactors in the United States that utilize this uranium as fuel. Brief at 42. In the event a market for such fuel were to subsequently develop in the United States, decisions on whether to restart or increase domestic uranium mining to meet demand would be within the province of actors other than the NRC, which does not regulate conventional uranium mining on private lands. *See Virginia Uranium, Inc. v. Warren*, 139 S. Ct. 1894, 1902 (2019).[15] Thus, any potential impact on the domestic uranium mining industry would rely on the following presumptions: (1) success of the Demonstration Program; (2) emergence of a currently non-existent commercial market for high-assay low-enriched uranium fuel, dependent on the emergence of new advanced nuclear reactor designs; (3) American Centrifuge obtaining another license amendment (triggering another round of NRC environmental review) to expand its operation and increase production of enriched uranium for said fuel; and (4) actors other than the NRC making local decisions on whether to authorize increased domestic uranium

[15] The NRC does license and regulate one method of uranium recovery, referred to as *in situ* recovery, where uranium ore is processed and chemically altered below ground prior to extraction. *See NRDC*, 879 F.3d at 1205-06. There are currently three such facilities regulated by the NRC; the remainder of uranium recovery in the United States is regulated at the state level. *See* https://www.nrc.gov/materials/uranium-recovery/extraction-methods/isl-recovery-facilities.html.

mining. This is precisely the type of attenuated chain of causation that this Court has stated agencies need not engage when performing NEPA analyses.

D. The NRC did not impermissibly segment or unreasonably restrict the scope of the environmental review of the Demonstration Program, which was the only proposal before the agency.

For similar reasons, Petitioners' arguments concerning alleged "segmentation" of the federal action, or the need for the NRC to prepare a "programmatic" Environmental Impact Statement, also fail. Brief at 39-47. Impermissible "segmentation" occurs, for purposes of NEPA, where an agency divides "connected, cumulative, or similar actions into separate projects and fails to address the true scope and impact" of the proposed action. *Myersville Citizens*, 783 F.3d at 1326 (quoting *Delaware Riverkeeper Network v. FERC*, 753 F.3d 1304, 1313 (D.C. Cir. 2014)). For example, in *Delaware Riverkeeper Network*, this Court held that the agency had engaged in impermissible segmentation by treating one pipeline construction project separately from three other projects already under construction or pending before the agency when the four projects taken together constituted a single linear pipeline. 753 F.3d at 1314.

When alleging that the NRC has engaged in impermissible segmentation, Petitioners reiterate their claim that the Demonstration Program is the first stage of a "much larger industrial production campaign" that "may extend over many decades" and result in "presumably higher-volume production" of high-assay

low-enriched uranium. Brief at 42-43, 47. But no proposal for such a "campaign" exists before the NRC. All that the NRC licensed is the Demonstration Program, a proposal enabling American Centrifuge to demonstrate its capability to produce a specified quantity of high-assay low-enriched uranium over a specified period of time. The NRC's Environmental Assessment expressly states in its discussion of "cumulative impacts" that any future decisions to expand the commercial production of high-assay low-enriched uranium would require additional NRC approval and elicit additional environmental review. Environmental Assessment p. 21, JA___. This would include any future "high-volume" production of enriched uranium by American Centrifuge, in excess of the possession limits in its current NRC license. The NRC's approval of the Demonstration Program does not in any way prejudice that future review or pre-commit the agency to approve that request.

Petitioners in essence argue that the principal flaw of the NRC's Environmental Assessment is that the agency considered the proposed action for exactly what it was: an amendment to an existing license, which had previously undergone significant environmental review, to produce a specified quantity of higher-enriched uranium. *See* Brief at 37-39 (arguing that "aspects of high-assay low-enriched uranium production render inapplicable the prior so-called 'bounding' NEPA documents cited by the NRC"). But the NRC's approach taken

in the Environmental Assessment was entirely reasonable—limiting the scope of its review to whether the Demonstration Program "would result in any new or additional environmental impacts that have been not analyzed." Environmental Assessment p .3, JA___. *See, e.g.*, *Mayo v. Reynolds*, 875 F.3d 11, 21 (D.C. Cir. 2017) (agencies "may rely on an already-performed, thorough and comprehensive NEPA analysis") (citing *New York*, 824 F.3d at 1019). The Environmental Assessment cogently explains the conclusions the NRC reached in its prior environmental studies of uranium enrichment activities at the same location, and the agency's rationale why the Demonstration Program would not result in any new significant impacts warranting further analysis. Environmental Assessment p. 14-21, JA___-___.

With respect to the alleged need for a "programmatic environmental impact statement," Brief at 42, Petitioners' complaint appears to be directed at the wrong agency. Petitioners cite to a Council on Environmental Quality regulation encouraging agencies to prepare such statements for the "adoption of new agency programs," including "federal assisted research, development or demonstration programs for new technologies[.]" 40 C.F.R. § 1502.4(b). Petitioners argue that the Demonstration Program "represents implementation of a Department of Energy policy via contract" and that the Department of Energy is implementing a policy "supporting the commercial feasibility of high-assay low-enriched uranium." Brief

at 40-41. As such, Petitioners assert that a "programmatic" Environmental Impact Statement "is needed now, before governmental investment or commitment is determinative of future decisions." *Id.* at 43.

Respondents do not dispute that the Department of Energy, in furtherance of its statutory mission, engages in activities supporting the development and deployment of advanced nuclear reactors, including research and development in advanced reactor fuels. But the NRC has no role in promoting the development of such fuels or supporting their commercial feasibility. By statutory design, the NRC is an independent health and safety regulator tasked solely with establishing general safety standards and licensing NRC-regulated activities, on an individualized basis, upon receipt of an application. *See* 42 U.S.C. § 5841(a), (f) (establishing the NRC as an "independent regulatory commission" assuming the "licensing and related regulatory functions" of the former Atomic Energy Commission).

Simply put, a "programmatic" Environmental Impact Statement prepared by the NRC would not serve any purpose because the NRC is not a participant or decisionmaker in any larger "program" identified by Petitioners, nor is the agency tasked with planning or committing resources to any broad federal policy supporting the commercial development or viability of advanced reactor fuels. The NRC's limited role in this matter is the one considered in the Environmental

Assessment that the agency did in fact prepare—deciding whether to approve the specific license amendment request that the NRC received for the Demonstration Program. As previously discussed, the agency reasonably determined that it would be speculative to assume that approval of the Demonstration Program would foreseeably result in expansion of the facility and commercial production of high-assay low-enriched uranium, especially given the need for additional NRC authorization and environmental review (performed independent of any promotional or commercial considerations) if that were to occur in the future.

CONCLUSION

The Court should dismiss the Petition for Review for lack of jurisdiction or, in the alternative, for failure to exhaust a mandatory statutory requirement. If the Court considers the Petition for Review on its merits, the record shows that the NRC acted reasonably in preparing the Environmental Assessment instead of an Environmental Impact Statement, and did not unreasonably omit consideration of any issues that Petitioners identify. The Petition should therefore be denied.

Respectfully submitted,

/s/ Justin D. Heminger
TODD KIM
Assistant Attorney General

JUSTIN D. HEMINGER
Attorney

Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
justin.heminger@usdoj.gov
(202) 514-5442

/s/ Eric V. Michel
MARIAN L. ZOBLER
General Counsel

ANDREW P. AVERBACH
Solicitor

ERIC V. MICHEL
Senior Attorney
Office of the General Counsel
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852
Eric.Michel2@nrc.gov
(301) 415-0932

April 27, 2022

CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rules of Appellate Procedure 28(b) and 32(g)(1), I hereby certify:

The foregoing Brief of Federal Respondents complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) and Circuit Rule 32(e) because, excluding the parts of the Brief exempted by Fed. R. App. P. 32(f) and Circuit Rule 32(e)(1), the Brief contains 12,507 words, as calculated by the word-processing software program with which the Brief was prepared.

The Brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type-style requirements of Fed. R. App. P. 32(a)(6) because it was prepared in 14-point Times New Roman, a proportionally spaced font.

/s/ Eric V. Michel
ERIC V. MICHEL
Counsel for Respondent U.S. Nuclear Regulatory Commission