UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of	
U.S. DEPARTMENT OF ENERGY (Plutonium Export License)	Application No. XSNM03327 Docket No. 11005440

CLI-04-17

MEMORANDUM AND ORDER

I. INTRODUCTION

Greenpeace International, Charleston Peace, and Blue Ridge Environmental Defense League (BREDL) ("Petitioners") have requested leave to intervene and a hearing on an application by the U.S. Department of Energy (DOE), filed on October 1, 2003, for a license to export up to 140 kilograms (kg) of weapons-grade plutonium oxide to France. Petitioners also requested a waiver of the physical security standard in 10 C.F.R. § 110.44 in this proceeding.[1] For the reasons discussed in this Memorandum and Order, we deny the Petitioners' request for intervention and hearing and waiver of 10 C.F.R. § 110.44.

[1] "Request for Hearing and Petition to Intervene by Greenpeace International, Charleston Peace, and Blue Ridge Environmental Defense League", filed November 26, 2003; "Request for Waiver of 10 C.F.R. § 110.44 by Greenpeace International, Charleston Peace, and Blue Ridge Environmental Defense League", filed November 26, 2003.

II. DOE'S LICENSE APPLICATION

DOE seeks a license from the Commission to export up to 140 kg of weapons-grade plutonium oxide to France. DOE, in its license application, discusses the following in support of the proposed export.

The U.S. and Russia each have committed to dispose of 34 metric-tons of weapons-grade plutonium by converting it into mixed oxide (MOX) fuel as part of a major non-proliferation effort aimed at reducing the threat of terrorist organizations or rogue nations obtaining nuclear weapons materials. DOE's proposed export is to support the MOX fuel qualification efforts for DOE's surplus plutonium disposition program. The plutonium oxide that DOE wants to export will be used to fabricate MOX fuel lead test assemblies (LTAs) for irradiation in a U.S. commercial nuclear reactor.

Currently, the U.S. does not have the capability to make MOX fuel LTAs. As part of the larger plutonium disposition program, DOE through its contractor Duke Cogema Stone & Webster (DCS) has applied for a license from the NRC to construct and operate a MOX fuel fabrication facility (MFFF) at DOE's Savannah River Site (SRS) near Aiken, South Carolina.[2] If the NRC gives the necessary approvals, the MOX fuel LTAs fabricated in the U.S. would be irradiated at a nuclear power plant owned and operated by Duke Energy, the Catawba Power Station. In February 2003, Duke Energy applied for an amendment to its Catawba reactor operating license to allow the use of MOX fuel LTAs.[3] Duke Energy plans to irradiate the MOX LTAs fabricated at Cadarache, France in the Catawba Plant to confirm that the MOX fuel performs as expected in a nuclear power reactor.

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[2] *See Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility) Docket No. 070-3098-ML.

[3] *See Duke Energy Corp.* (Catawba Nuclear Station, Units 1 & 2) Docket Nos. 50-413-OLA, 50-415-OLA.

The plutonium oxide that DOE proposes to export is currently at the Los Alamos National Laboratory (LANL) in New Mexico. It would be transported by land from LANL to the Charleston Naval Weapons Station (NWS) in Charleston, South Carolina using the systems operated by the DOE, National Nuclear Security Administration, Office of Secure Transportation (OST).[4] At the Charleston NWS, the material would be loaded onto two armed Pacific Nuclear Transport, Ltd. (PNTL) ships in shipping packages certified by the NRC, and transported to Cherbourg, France.[5] The PNTL ships will sail in convoy for mutual protection. If approved, DOE expects to carry out this export in July/August 2004.

From Cherbourg, the plutonium oxide would be shipped overland to Cogema's fuel fabrication facility in Cadarache, France. Once the material is fabricated into MOX fuel at Cadarache, it would be transported by land and assembled into LTAs at the MELOX facility. Once the MOX LTAs are fabricated, they would be shipped back to Cherbourg and returned to the U.S. aboard PNTL ships.

The transfer of the plutonium oxide would take place in accordance with the U.S.-EURATOM Agreement for Cooperation. Safeguards would be implemented by the EURATOM Safeguards Inspectorate, which is similar to the IAEA safeguards system. The French Government would determine the physical protection measures to be implemented while the material is in France, in compliance with IAEA recommendations, including INFCIRC/225/Rev. 4,

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[4]For a description of the unclassified characteristics of OST's secure system, *see* DOE's Amended Record of Decision, "Surplus Plutonium Disposition Program," 68 Fed. Reg. 64,611, 64,612, n. 2 (Nov. 14, 2003). These include, among other things, advanced communications equipment; around the clock, real-time monitoring of the location and status of the vehicle; enhanced structural supports; armed Federal officers; and a tractor-trailer combination using various defense technologies to protect crew members and cargo from attack.

[5]The PNTL ships are specially designed with special safety features to transport radioactive materials. The ships include double hulls; enhanced buoyancy; duplicate navigation, communications, electrical and cooling systems; dual propulsion systems; specialized fire fighting equipment; satellite navigation and tracking; and highly experienced crew members. *See* Amended Record of Decision, *supra*, note 4.

"Physical Protection of Nuclear Material and Nuclear Facilities."[6] The actual physical protection measures used at the fuel fabrication facilities and during transport will be classified. Such measures will include armed guards and close communication with the French national response forces. DOE emphasizes that the measures used by France will be comparable to the measures used in the U.S. to transport and process this type of radiological material. Additionally, these measures are subject to periodic review by the DOE Office of Export Control.

The Cadarache fuel fabrication plant is scheduled to close permanently in the summer of 2005. If the plutonium oxide is not exported this summer, DOE would have to wait to fabricate the LTAs in the U.S. until the MFFF at the SRS is licensed and constructed. The earliest the MFFF is expected to be operational, if licensed, is 2008. Therefore, DOE believes that if this export is delayed, the MOX program itself could be delayed by three to four years and costs could increase for the MOX program by a predicted one billion dollars. Russia's parallel program to convert weapons-grade plutonium into reactor fuel also could be jeopardized by a U.S. delay because Russian officials have stated they will move forward only if the U.S. continues to move forward. Such a delay would postpone the removal of the equivalent of approximately 1,000 nuclear weapons per year from the inventory of surplus weapons-grade plutonium.[7]

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[6]INFCIRC/225/Rev. 4 is incorporated by reference in the Commission's regulations at 10 C.F.R. § 110.44, "Physical security standards" pursuant to section 127 of the Atomic Energy Act (AEA), as amended by the Nuclear Non-Proliferation Act (NNPA).

[7]By letter dated January 9, 2004, the Executive Branch informed the Commission of its judgment that all applicable export licensing criteria of the AEA, as amended, had been met, including the relevant physical security measures, and that it supported the issuance of the requested license. The Commission also received confirmation from the European Commission, by way of the U.S. Department of State, that the proposed export would take place pursuant to the U.S.-EURATOM Agreement for Nuclear Cooperation.

III. PETITIONERS' REQUEST FOR HEARING

The Petitioners seek intervention and a hearing to argue that (1) if the proposed export is authorized, it would be inimical to the common defense and security of the United States because "the international [physical protection] standard under which the application is to be judged is grossly inadequate to meet the security demands of the post-September 11, 2001 environment" (Nov. 26 Petition at 1-2); (2) the license application is deficient because it does not identify the United Kingdom as a recipient of the plutonium (Nov. 26 Petition at 10); and (3) the Environmental Impact Statement and Supplemental Analysis are inadequate to support the issuance of an export license to DOE (Nov. 26 Petition at 11). Pursuant to 10 C.F.R. § 110.111(a), the Petitioners also seek a waiver of 10 C.F.R. § 110.44(a), which provides that "physical security measures in recipient countries must provide protection at least comparable to the recommendations in...IAEA publication INFCIRC/224/Rev. 4," and request that the Commission "upgrade its regulatory standard for maintaining security in the export of materials to foreign countries...." Nov. 26 waiver request at 1.

DOE filed an Opposition in Response to Petition to Intervene on December 31, 2003. In its response (at 6-23), DOE argued that Petitioners failed to establish standing to intervene as of right. DOE also argued that Petitioners do not meet the Commission's requirement for a discretionary hearing because a hearing would not be in the public interest and would not assist the Commission in making the determinations required by the AEA or 10 C.F.R. § 110.45. DOE Response at 24-30. Additionally, DOE argued that the Commission should not waive 10 C.F.R. § 110.44(a) because Petitioners failed to meet the standard set forth in 10 C.F.R. § 110.111 for granting a waiver, and that § 110.44 continues to meet its purpose of ensuring that physical protection in recipient countries is sufficient to protect against the proliferation of nuclear

weapons. DOE Response at 30-36. Petitioners filed a Reply to DOE's Opposition to Hearing Request and Waiver Petition on January 23, 2004.[8]

A. The Petitioners' Standing

The Commission has traditionally applied the judicial concepts of standing to determine whether a potential intervenor has an "interest [which] may be affected" within the meaning of Section 189a. of the AEA.[9] Petitioners Greenpeace International, Charleston Peace, and BREDL each an interest for standing on the basis of their organizational interests falling within the purposes of the AEA of protecting public health and safety and the common defense and security.[10] Petition at 13. Petitioners state that issuance of the proposed license would adversely affect their organizational interests by creating "the risk of an unplanned radiological release to the environment during the shipment of plutonium to Europe." *Id.*

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[8]These pleadings were followed by additional filings by Petitioners and responses by DOE that are not contemplated by the Commission's regulations pertaining to the initial filing of an intervention and hearing petition. See 10 CFR § 110.83(b). The Commission reviewed these additional filings, however, and took all relevant information into account in reaching a decision on the intervention petition and export application. In effect, therefore, Petitioners have been afforded the opportunity to provide views that is the functional equivalent of that afforded for a written hearing conducted pursuant to 10 C.F.R. § 110.85.

[9]See *Transnuclear, Inc.* (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 5 (1994); *Commonwealth Edison Co.,* CLI-99-4, *49 NRC 185, 188 (1999); Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993). The judicial concepts of standing are satisfied when a petitioner shows "a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision. *Cleveland Electric Illuminating Co.*, 38 NRC at 92-3; *see also Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC),* Inc., 528 U.S. 167, 168 (2000); *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992).

[10]The Petition describes Greenpeace International as "an international nonprofit campaigning organization that uses nonviolent, creative confrontation to expose global environmental problems, advocate nonproliferation and disarmament. . .." Charleston Peace's described purpose is to " promote peace and social justice." Similarly, BREDL's purpose is described as "fostering of earth stewardship and conservation of natural resources by the government and public." Petition at 3-4.

Petitioners have failed to establish standing based on organizational interests. The Supreme Court in *Sierra Club v. Morton*, 405 U.S. 727, 739 (1972), made clear that:

> [A] mere "interest" in a problem, no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem, is not sufficient by itself to render the organization "adversely affected" or "aggrieved" within the meaning of the APA.

See also Edlow International Co. (Agent for the Government of India on Application to Export Special Nuclear Material), CLI-76-6, 3 NRC 563, 572 (1976). Thus, the generalized institutional interest in minimizing danger from proliferation is insufficient to confer standing. *Transnuclear, Inc.*, 39 NRC at 5; *see also Dellums v. NRC*, 863 F.2d 968, 972 (D.C. Cir. 1988) (stating that "opposing nuclear proliferation and ensuring proper safeguards for nuclear energy" is only a generalized goal).

Petitioners also assert representational standing of their members based on their proximity to the plutonium shipments. They submitted declarations of individual members and supporters in support of this assertion.[11] *Id.* at 14-15. Under this proximity or geographic presumption, standing to intervene may be found in some circumstances if the petitioner lives within, or has frequent contacts with, the zone of reasonably forseeable harm from the source of radioactivity. The Commission's articulated standard for applying the "proximity presumption" is:

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[11]Merrill T. Chapman lives within an eighth of a mile of Charleston Harbor and within two miles of the Charleston Naval Base. Petition at Attachment 4. Marcella Guerriero resides 1.5 miles from Charleston Harbor and three miles from the Charleston Naval Base. Petition at Attachment 5. Amy Horwitz lives within a mile of Charleston Harbor and less than ten miles from the Charleston Naval Base. Petition at Attachment 6. Linda Price King lives within 20 miles of the Newport News, Virginia port, five miles from railroad lines, and five miles from Interstate Highways 168, 464 and 64. Petition at Attachment 7. James Scott lives within 20 miles of the Newport News, Virginia port, five miles from railroad lines, and five miles from Interstate Highways 168, 464 and 64. Petition at Attachment 8. "Mere geographical proximity to potential transportation routes is insufficient to confer standing; instead,...Petitioners must demonstrate a causal connection between the licensing action and the injury alleged." *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 434 (2002). *See also International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-18, 54 NRC 27, 31-32 (2001).

> [W]e have held that living within a specific distance from the [nuclear power] plant is enough to confer standing on an individual or group in proceedings for construction permits, operating licenses, or significant amendments thereto, such as the expansion of the capacity of a spent fuel pool. However, those cases involved the construction or operation of the reactor itself, with clear implications for the offsite environment, or major alterations to the facility with a clear potential for offsite consequences. Absent situations involving such obvious potential for offsite consequences, a petitioner must allege some specific "injury in fact" which will result from the action taken. . . .

Florida Power & Light Co. (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989)(citations omitted). *See also Yankee Atomic Electric Co.*, CLI-96-7, 43 NRC 235, 247-48 (1996). The focus in applying this presumption is whether the

> proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences. Whether and at what distance a petitioner can be presumed to be affected must be judged on a case-by-case basis, taking into account the nature of the proposed action and the significance of the radioactive source.

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116-117 (citations omitted). *See also Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-92-12, 40 NRC 64 (1994).

Petitioners allege that the potential for a successful terrorist attack and radiological release is "obvious" and provide two reasons. First, Petitioners assert that weapons exist that are capable of piercing the walls of the storage and transport casks. Second, Petitioners state that plutonium is an attractive target to terrorists. However, even if these assertions are accepted as true, the potential for a successful radiological release is far from obvious. Petitioners fail to provide any evidence of a specific credible threat and do not go beyond mere speculations about an unsupported and undefined potential threat. The grant or denial of this export license is far removed from the generalized and hypothetical harm complained of by the Petitioners.[12]

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[12]"A plaintiff may not rely on the remote possibility, unsubstantiated by allegations of

(continued...)

Further, Petitioners fail to establish a nexus between the agency's actions and their alleged injury. The alleged harm — the attack or diversion of nuclear material by terrorist organizations — does not result from the grant or denial of the export license; rather, the remote potential for harm is dependent on the intervening acts of unknown third parties. *See Exxon Nuclear Co.* (Ten Applications for Low-Enriched Uranium Exports to EURATOM Member Nations), CLI-77-24, 6 NRC 525, 531-32 (1977); *Westinghouse Electric Corp.* (Nuclear Fuel Export License for Czech Republic — Temelin Nuclear Power Plants), CLI-94-7, 39 NRC 322 at 332 (1994). Here, Petitioners are concerned that a terrorist attack on the radiological material could threaten public health and safety. Terrorist acts are unlawful domestically as well as in the EURATOM nations. Therefore, the potential for harm that concerns Petitioners arises not from the export itself but from unlawful acts. As the Commission previously has said,

> the Commission's responsibility for considering the possibility of diversion as one aspect of protecting the common defense and security of the United States does not establish that diversion would cause any concrete personal or direct harm to petitioners which would entitle them to a voice in its proceedings.

Edlow International Co., CLI-76-6, 3 NRC at 577.

Further, unlike the line of Commission decisions discussing the proximity presumption and involving permanent or long-term licensed facilities, this license application involves a one time export, under armed guard, of a limited quantity of plutonium oxide through the Charleston NWS. The material will be at the military facility for a limited time and details of the shipment, including the time and location, will be classified to guard against theft, diversion, or terrorist attack. For the reasons discussed above, Petitioners' claims of potential injury are so

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[12](...continued)
fact, that his situation might have been better had respondents acted otherwise, and might improve were the court to afford relief." *Cf. Warth v. Seldin*, 422 U.S. 490, 507 (1975).

speculative, and separate from the export license, that they do not amount to cognizable harm for purposes of standing.[13]

B. Statutory Requirements for a Hearing on an Export Application

Even if the petitioners had shown standing, we would not order a hearing on this export application. As discussed in detail below, in the Nuclear Non-Proliferation Act of 1978 (NNPA), Congress gave the Commission discretion to hold public hearings, or not, "as the Commission deems appropriate." Here, we already have sufficient information in the record (including the petitioners' submissions) to make a reasoned judgment on this export license. Public hearings would not further assist the Commission's decision-making.

Section 304(b) of the NNPA provides that the Commission shall allow "public participation in nuclear export licensing proceedings when the Commission finds that such participation will be in the public interest and will assist the Commission in making the statutory determinations...including such public hearings and access to information as the Commission deems appropriate." Section 304(c) of the NNPA then provides that the procedures established pursuant to section 304(b) "shall constitute the exclusive basis for hearings in nuclear export licensing proceedings before the Commission. . . and shall not require the Commission to grant any person an on-the-record hearing in such a proceeding."

A straightforward reading of these provisions, which is not contradicted by any Commission regulation or prior adjudicatory decision, is that the Commission is required to hold a hearing only if it concludes that public participation will be in the public interest and assist it in

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[13]We note that DOE would have the authority to transport plutonium oxide within the U.S. regardless of the NRC's grant of the export license. The NRC's jurisdiction to license DOE exports of special nuclear material under AEA § 54d. does not extend to any aspects of DOE's domestic transportation of such material. Therefore, it is not at all clear that denial of DOE's proposed export license would redress or avoid the harm that Petitioners assert for standing purposes -- i.e., DOE's transportation of the plutonium oxide near Charleston and Newport News.

making the statutory determinations required by the Atomic Energy Act. There is nothing in the statutory language that suggests that the Commission must hold a hearing if a member of the public requesting a hearing has standing– or as AEA § 189 puts it, "an interest which may be affected."[14] The scant legislative history of the hearing provisions of the NNPA nowhere says or implies that Congress intended that a person is entitled to a hearing upon a finding by the Commission that the person has standing. The most illuminating statement in the legislative history is found in the report issued by the Senate Committee on Governmental Affairs. The Committee stated: "public participation is permissible when the NRC finds that such participation will be in the public interest and will assist the NRC in making the statutory determinations required by the 1954 Act."[15] This statement clearly indicates that the Committee did not envision mandatory hearings; it viewed public participation to be a matter of Commission discretion and it contemplated hearings only when the NRC finds that hearings will assist the NRC in making the statutory determinations.

The public participation provisions found in the Commissions' export licensing regulations at 10 C.F.R. § 110.84, promulgated shortly after enactment of the NNPA, provide that the Commission will consider whether a person requesting a hearing has "an interest which may be

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[14]Shortly after enactment of the NNPA, the Assistant Legal Adviser for Nuclear Affairs, Department of State, who served as the principal Executive Branch draftsman of the NNPA, wrote a law review article explaining the new Act. He stated:

> The NNPA provides that the NRC shall not be required to grant any person an on-the-record hearing in an export licensing proceeding. This has led to some confusion as to whether judicial standing doctrines previously applied by the NRC for public participation in export licensing proceedings survive. The NRC regulations avoided taking an immediate position on whether the NRC has to grant a hearing to any person not constitutionally entitled, since the regulations merely list the elements the NRC will consider in deciding on standing and do not assert that a person who establishes that his interests will be affected will automatically be granted standing to participate in an export licensing proceeding. Ronald J. Bettauer, the Nuclear Non-Proliferation Act of 1978, 10 Law and Policy in International Business, 1105, 1119 (1978).

[15]S. Rep. No.467, 95th Cong., 1st Sess. 15

affected" but do not explicitly provide that if a person has standing, the Commission will order a hearing. In the subsequent years, the Commission in its export licensing orders typically has addressed the standing of requesters -- persons without standing are not as likely as persons with standing to contribute significantly to Commission decision-making -- but has not explicitly found that if a person has standing the Commission must hold a hearing.

Beyond the standing question (which, in this case we have resolved against Petitioners), the Commission's focus must be on whether a hearing would be "in the public interest and assist the Commission in making the statutory determinations" that are prerequisites to the issuance of the requested export license. Here, as discussed further in Part C, infra, the Commission is unable to find that holding the requested hearing would be in the public interest and assist the Commission in making the statutory-required determinations. See 10 C.F.R. §110.84(a). The applicant and the petitioners have submitted comprehensive filings that clearly set forth the issues, and provide detailed analysis in support of their views. This record, augmented by the views of the Executive Branch on the merits of the application, provides the Commission with ample information upon which to base its export licensing decision such that under the circumstances further proceedings would not be in the public interest.

C. Whether A Hearing Would Be in the Public Interest and Assist the Commission in Making the Required Statutory Determinations

We turn now to the specific issues raised by the petitioners: (1) the export would be inimical to the common defense and security because international physical security measures are outdated and inadequate; (2) the license application is deficient because DOE failed to name the United Kingdom as a recipient state; and (3) the 1996 Storage and Disposition PEIS and 1999 SPDEIS and recent Supplemental Analysis are not adequate to support the issuance of the export license.

1. Adequacy of Physical Security Measures

Petitioners maintain that the level of physical security protection required under the Commission's regulations (10 C.F.R. § 110.44(a)) for recipient countries of U.S.-origin exports is outdated. The crux of Petitioners' position is that the basic international standard embodied in the NRC's regulations for physical security measures -- specifically, IAEA INFCIRC/225/Rev. 4 -- needs to be revised after the events of September 11, 2001. According to Petitioners, therefore, the Commission cannot make the requisite statutory determinations under Sections 127(3) and 57c.(2) of the AEA for the grant of the proposed license. Petitioners request a hearing on the matter. Petitioners state that a hearing would assist the Commission in determining the adequacy of current physical security measures in France for the proposed plutonium oxide fuel export in light of the events of September 11. As explained below, we find that a hearing on this issue would not be in the public interest or assist us to make the requisite statutory determinations.

Petitioners themselves acknowledge (Nov. 26 Request at 9) that they do not possess any specialized knowledge not already in the public record as to what physical security measures are currently in place in France because "of the lack of available information regarding the manner in which the French Government implements IAEA INFCIRC/225/Rev. 4." A hearing for the purpose of delving into the specifics of the physical security measures of a recipient foreign country to determine the adequacy of those measures and of the existing standards clearly would not be appropriate, both because of legal restrictions on dissemination of such information and because further dissemination of such information could endanger security. The Commission's assessment of the adequacy of physical security for exports of weapons-grade nuclear materials depends in part upon its expert technical assessment of sensitive information not available to the public. Details of security arrangements consist in large part of national

security information classified under Executive Order 12958, as amended, or safeguards information protected from public disclosure under Section 147 of the Atomic Energy Act. Based on the information made available to the NRC by the Executive Branch, including a classified briefing of the NRC staff, the NRC has adequate information before it to assess the adequacy of the physical security for this proposed export.

In addition to assessing the adequacy of the security measures that will protect the material, the NRC is mindful that the proposed export is an essential and integral component of a major bilateral agreement on nuclear non-proliferation, the U.S. - Russia Plutonium Management and Disposition Agreement, the very purpose of which is to further the United States' nuclear non-proliferation goals by providing for the reduction of vast quantities of surplus weapons-grade plutonium from weapons programs. Moreover, the U.S. has had a long history of reciprocal trust and cooperation with EURATOM on physical security, safeguards, and other matters relevant to the prevention of nuclear proliferation. Thus, the export authorization decision also involves matters of policy, requiring the Commission to assess its technical conclusions as to physical security and the other statutory criteria along with the important nuclear non-proliferation and foreign policy objectives underlying the U.S.-Russia agreement.

Finally, Petitioners have already submitted detailed information as to the basis for their position. We do not believe a hearing will result in significant new information that is not already available to and considered by the Commission in making the requisite statutory determinations.

2. Failure to Name the United Kingdom as a Recipient State

Petitioners argue that DOE's application is deficient because it did not identify the U.K., in addition to France, as an importing nation. As best we understand it, Petitioners maintain that the U.K. should be treated as a recipient foreign nation because the PNTL vessels to which the plutonium will be transferred for transportation on the high seas are majority-owned by the U.K.

Petitioners apparently believe that the U.K.'s ownership of the PNTL vessels transforms the transportation of the material by the vessels into an "export," with international transportation security measures to be decided by the U.K. as an importing "recipient state." In this context, Petitioners maintain that DOE's license application is also deficient because it was filed prior to the U.K.'s approval of an international transportation security plan for the PNTL ships. See, e.g., Large Supplemental Declaration (Dec. 11, 2003).

The basic premises of Petitioners' position are incorrect. The transfer of nuclear material to an intermediate consignee performing only shipping services such as the PNTL does not in any respect constitute an "export" to a foreign sovereign under the Commission's regulations (see 10 C.F.R. 110.2) or under international law.[16] Moreover, it is the U.S., and not the U.K., that is ultimately responsible for approving the transportation plan to be used by the PNTL vessels for international transportation of the plutonium from the U.S. to Cherbourg, France. The Executive Branch made this clear in its January 9, 2004 letter transmitting its views, in which it stated that the "export will be subject to a transportation plan as agreed by the Departments of Energy and Defense and the NRC, which will include...use of two armed [PNTL] vessels which will escort one another for the sea shipment to and from France."[17] Both the U.S. and the U.K., as a member of EURATOM, are signatories to international treaties that set the standards for international transportation security, including the Convention on the Physical Protection of Nuclear Materials (IAEA INFCIRC/274/Rev. 1) and the Safety of Life at Sea Convention

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[16] As DOE points out (DOE's December 31, 2003 response at 20), under international law, countries to which ships are registered have limited duties relating primarily to "administrative, technical and social matters" over the ship and its crew. United Nations Convention on the Law of the Sea, Dec. 10, 1982, art. 94.

[17] We note that this method of ocean transport was previously evaluated by a team of U.S. physical security experts during a classified physical protection bilateral visit with the U.K. The U.S. team determined that this transport method meets the requirements of INFCIRC/225/Rev. 4.

(SOLAS). We are confident that the transportation plan agreed to by the U.S., through the NRC, DOE, and DOD, will be in full compliance with governing international standards and do not see any basis for a hearing in this area.

3. Adequacy of Environmental Analysis

Petitioners also assert that DOE's Storage and Disposition of Weapons-Useable Fissile Materials Final Programmatic Impact Statement (DOE/EIS-0229) (December 1999) (PEIS), the Surplus Plutonium Disposition Final Environmental Impact Statement (DOE/EIS-0283) (November 1999)(EIS), and the recent Supplemental Analysis for Fabrication of Mixed Oxide Lead Assemblies in Europe (DOE/EIS-0229-SA3) (November 2003) (SA) are inadequate and outdated, and thus, do not support the issuance of the proposed export license to DOE. Specifically, Petitioners argue that the PEIS and EIS predate the terrorist attacks on September 11, 2001 and that the SA does not address the significantly changed circumstances in the post September 11 environment.[18]

The Commission has thoroughly reviewed Petitioners' arguments regarding DOE's NEPA review and finds no basis for ordering a hearing. NRC case law does not require a NEPA-based review of terrorism[19]; however, DOE of course has discretion to review terrorism in the NEPA context. Here DOE did evaluate, among other things, sabotage and terrorism in the PEIS and EIS, as well as in the November 2003 SA, and determined that while "the likelihood of an attempted act of sabotage or terrorism occurring is not precisely knowable, the chance of

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[18]Specifically, Petitioners desire the NEPA review to address the following issues:

> (a) sending plutonium across the ocean in vessels with "questionable" security measures, (b) to a country whose measures for safeguarding are shrouded in secrecy, (c) under international security standards that are "grossly outdated."

[19]*Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation) CLI-02-05, 56 NRC 340, 347 (2002). Recently, the Commission's position has been challenged in the Federal courts. *See San Luis Obispo Mothers for Peace, et al. v. NRC*, 9th Cir. No. 03-74628.

success of any such attempt was judged to be very low, particularly in light of the transport methods. . .which are designed specifically to afford security against sabotage or terrorism, as well as safety in the event of an accident." SA at 23. Contrary to Petitioners' assertion, DOE has taken a "hard look" at sabotage and terrorism and determined that adequate safeguards remain in place to meet such threats in the post-September 11 environment. *Id.* at 23-24. To conduct the type of NEPA review on terrorism that Petitioners are seeking would not be in the public interest and would be incompatible with NEPA's public participation process:

> In the wake of September 11, an overriding government priority is to avoid disclosing to terrorists themselves precisely where and how nuclear facilities might be most vulnerable and what steps are being taken to lessen terrorists' chance of success. Yet it would not be possible to embark upon a meaningful NEPA review of any type without engaging in such subjects. NEPA does not override our concern for making sure that sensitive security-related information ends up in as few hands as practicable.

Private Fuel Storage, 56 NRC at 347.

In short, DOE has already conducted a thorough terrorism analysis in the NEPA context; this analysis, while useful, is not required by NEPA.[20] Therefore, the Commission does not find that hearing is warranted for additional NEPA review on terrorism as requested by Petitioners.

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[20] The purpose of a NEPA analysis "is to inform the decisionmaking agency and the public of a broad range of environmental impacts that will result, with a fair degree of likelihood, from a proposed project, rather than to speculate about worst-case scenarios and how to prevent them." *Private Fuel Storage,* 56 NRC at 347. *See also Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 365 (2002); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335, 338-39 (2002); Dominion Nuclear Connecticut, Inc. (Millstone Power Station, Unit 3), CLI-02-27, 56 NRC 367, 371 (2002); *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-1, 57 NRC 1, 7 (2003).

IV. THE STATUTORY DETERMINATIONS

A. Section 127 Criteria

In order to grant an export license to a nuclear-weapons state such as France, the Commission must determine that the non-proliferation criteria set forth in Section 127 of the AEA have been met. The Petitioners contend that the criterion under Section 127(3), requiring "adequate physical security measures" in recipient countries, cannot be met.

Section 127(3) provides that "[f]ollowing the effective date of [Commission regulations promulgated pursuant to Section 304(d) of the NNPA], physical security measures shall be deemed adequate if such measures provide a level of protection equivalent to that required by the applicable regulations." Section 304(d), in turn, directs the Commission, in consultation with DOE and the Departments of State and Defense, to promulgate "regulations establishing the levels of physical security which in its judgment are no less strict than those established by any international guidelines to which the United States subscribes and which in its judgment will provide adequate protection for facilities and material referred to in [Section 127(3) of the AEA] taking into consideration variations in risks to security as appropriate." In accordance with NNPA § 304(d), the Commission's regulation at 10 C.F.R. § 110.44(a), which was promulgated in consultation with the specified Executive Branch agencies, references the international guideline regarding physical security to which the U.S. subscribes, i.e., "the current version of IAEA publication INFCIRC/225/Rev. 4 (corrected)." That regulation requires that physical security measures in recipient countries must provide a level of protection at least comparable to the recommendations in IAEA INFCIRC/225/Rev. 4. Therefore, by definition, the physical security measures of a recipient foreign country of a U.S.-origin export "shall be deemed adequate" within the meaning of Section 127(3) if such measures provide a level of protection as least comparable to that required by INFCIRC/225/Rev. 4. Pursuant to 10 CFR 110.44(b),

"Commission determinations on the adequacy of physical security measures are based on -- (1) [r]eceipt of written assurances from recipient countries that physical security measures provide protection at least comparable to the recommendations set forth in INFCIRC/225/Rev. 4 (corrected); (2) [i]nformation obtained through country visits, information exchanges, or other sources. Such determinations are made on a country-wide basis and are subject to continuing review...."

The Commission has determined that France's physical security system provides protection at least comparable to INFCIRC/225/Rev. 4, the current international standard. The existing U.S.-EURATOM Agreement for Cooperation pursuant to Section 123 of the AEA reflects a reciprocal obligation by all EURATOM countries, including France, to protect U.S.-origin material under terms and conditions which track all of the Section 127 criteria. Regarding physical security measures, Article 11.2 of the U.S.-EURATOM Agreement reflects a commitment by EURATOM countries to provide physical security at levels which satisfy the criteria recommended by the IAEA in its most recent INFCIRC 225 publication. By letter dated December 15, 2003, EURATOM has confirmed that the proposed export will be protected by France under all of the terms and conditions of the U.S. - EURATOM Agreement, including the condition regarding physical security. In a letter dated January 9, 2004, the Department of State transmitted the views of the Executive Branch that all of the criteria in Section 127 of the AEA have been met. The Commission also received additional information regarding France's physical security system in a recent classified briefing of the NRC staff by the Executive Branch. We also note that France has adopted the Nuclear Supplier Group Guidelines and is a member of the Exporters Committee of parties to the Treaty on the Non-proliferation of Nuclear Weapons ("Zangger Committee"). Accordingly, we find that the criterion under Section 127(3) for

"adequate" physical security has been satisfied. On the basis of this record, we find that the non-proliferation criteria under Sections 127(1), (2), (4), (5), and (6) have also been met.[21]

B. Non-inimicality Finding

In addition to finding that the recipient country will satisfy the non-proliferation criteria in Section 127, the Commission must also determine pursuant to Section 57c.(2) of the AEA that a proposed export will not be "inimical to the common defense and security" of the United States. As we understand it, the crux of the Petitioners' position is that, even if the AEA § 127 criteria are satisfied, the proposed export will nonetheless be inimical to the common defense and security because the "international guidelines [on physical security] to which the United States subscribes," i.e., IAEA INFCIRC/225/Rev. 4, do not provide "adequate protection" from a physical security standpoint within the meaning of NNPA § 304(d), and France has not imposed additional physical security measures exceeding IAEA INFCIRC/225/Rev. 4 that are sufficient to guard against terrorist attacks.

As noted in *NRDC v. NRC*, 647 F.2d 1345, 1363 (D.C. Cir. 1981), the legislative history of the NNPA indicates that, in the absence of "unusual circumstances," the Commission "need not look beyond the non-proliferation safeguards [in Section 127 for nuclear-weapons states] in determining whether the common defense and security standard is met." In its letter transmitting the views of the Executive Branch to the Commission, the Department of State found that the proposed export would not be inimical to the U.S. common defense and security. In reaching its non-inimicality conclusion, the Department of State, as required by Section 133 of the AEA, consulted with the Department of Defense to confirm that physical protection measures will be adequate to deter theft, sabotage, and other acts of international terrorism that would result in the diversion of the material during the export or transfer. Thus, the Executive Branch has

[21]These criteria are not the subject of the Petitioners' intervention and hearing request.

concluded that there are no "unusual circumstances" regarding the proposed export that would render the export "inimical" to the common defense and security notwithstanding that the Section 127 criteria have been satisfied. The Executive Branch's non-inimicality determinations involve "strategic judgments" and foreign policy and national security expertise regarding the common defense and security of the United States, and the NRC may properly rely on those conclusions. *NRDC*, 647 F.2d at 1363; *Transnuclear, Inc.*, 52 NRC at 77.

We emphasize that we must necessarily balance our statutory role in export licensing with the conduct of United States foreign relations, which is the responsibility of the Executive Branch. As Judge Wilkey noted in *NRDC*,

> Responsibility...rests finally in the executive branch to ensure achievement of the nation's foreign policy goal to defeat nuclear proliferation. The Commission's task is complementary.

657 F.2d at 1358. We view this particular export application within the context of a major U.S. foreign policy objective -- the defeat of nuclear proliferation on a global basis. It is significant that the proposed export is not commercial in nature but integral to fulfilling U.S. obligations under the U.S. - Russian Agreement in a timely manner. DOE explains that there could be serious consequences to effectively carrying out the agreement if the proposed export were denied or delayed, including a three to four year delay in the removal of the equivalent of approximately 1000 nuclear weapons per year from the inventory of surplus weapons-grade plutonium (DOE Response, p. 25; Declaration of Linton F. Brooks, p. 2.; Declaration of Edward J. Siskin, p. 2). Such a delay would hinder U.S. efforts to encourage the Russian Federation to design and construct a Russian MOX fuel fabrication facility (DOE Response, pp. 25-26; Declaration of Linton F. Brooks, id.; Declaration of Edward J. Siskin, id.), and potentially stall U.S. efforts to obtain international funding for the Russian program. DOE Response, id.; Declaration of Linton F. Brooks, p. 3; Declaration of Edward J. Siskin, p. 3. DOE also notes that failure or delay in implementing the U.S.-Russian Agreement could adversely affect the U.S.'s

ability to negotiate and implement future agreements related to non-proliferation. In sum, we believe that in the circumstances of this export application, there would be a serious risk of "unduly impeding the conduct of United States foreign relations" (*NRDC*, 647 F.2d at 1358) in the area of nuclear non-proliferation were we not to defer to the Executive Branch's foreign policy and national security conclusions.

Petitioners' latest filing, received by the Commission on March 26, 2004, indicates that a primary concern of Petitioners with respect to French physical security is in the transportation of the plutonium oxide within France. Petitioners, through the declaration of their "witness" John H. Large, indicated that the French government has released information which shows that the FS47 transportation package (which will be used to transport the plutonium oxide) failed explosive tests designed to simulate terrorist attacks (i.e., radiological sabotage).

The NRC views actions as being inimical to the common defense and security where there is an unacceptable likelihood of grave or exceptionally grave damage to the United States. Thus, the NRC's principal concern once fissile nuclear materials have left the United States is the possibility of theft. For this specific export application, the potential for grave damage to the U.S. arises from the theft of sufficient plutonium oxide during transportation or at the French fabrication facility, incorporation of the material into an improvised nuclear device (IND), i.e., a weapon of mass destruction, transportation of the IND to the U.S., and detonation of the IND within the U.S. Petitioners' concerns regarding the possibility of a tunnel fire or act of radiological sabotage to disperse the plutonium oxide in France, while no doubt important to the French government and considered by that government in establishing transportation security arrangements, do not raise issues relating to the theft of the exported plutonium oxide,

incorporation of the plutonium oxide into an IND, transportation of the IND to the U.S., and detonation of the IND within the U.S.[22]

As noted, Petitioners, through the declarations of their "witnesses," have repeatedly maintained in their various filings that the Commission cannot find France's physical security to be adequate even if it meets the standard of INFCIRC/225/Rev. 4 because that standard is outdated after the events of 9/11. This is the basis for their request for a waiver of 10 C.F.R. §110.44. However, Petitioners have failed to take into account that, under Section 8 of INFCIRC/225/Rev. 4, States transporting special nuclear material are obligated to have emergency procedures to effectively counter the State's design basis threat. Moreover, under Section 4 of INFCIRC/225/Rev. 4, States are obligated to continuously review the design basis threat and evaluate the implications of any changes in that threat for the levels and methods of physical protection. As we concluded above, France, through the U.S.-EURATOM Agreement as well as the case-specific EURATOM assurance letter of December 15, 2003, has unquestionably committed to meeting the standards embodied in INFCIRC/225/Rev. 4. Accordingly, we do not find that special circumstances exist which would result in the rule not serving the purposes for which it was adopted. *See* 10 C.F.R. § 110.111.

Finally, France, a member of EURATOM, has a long and solid history of commitment to nuclear non-proliferation, including reciprocal cooperation with the U.S. under the U.S.-EURATOM Agreement for Cooperation with respect to physical security and safeguards. As a nuclear- weapons state, France has a long history of securing nuclear-weapons grade material.

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[22]Although not relevant to the inimicality determination, Petitioners have argued that the FS47 transportation package is vulnerable to a tunnel fire. The FS-47 package is currently certified by competent authorities of France to meet the Type B fissile standards of IAEA standard TS-R-1, "Regulations for the Safe Transport of Radioactive Material," 1996 Edition. The Department of Transportation has requested NRC technical assistance concerning the ability of the design to meet TS-R-1 for purposes of the U.S. revalidation of the package for use in the transportation association with U.S. imports and exports.

In addition to its nuclear weapons program, France has for many years reprocessed spent nuclear fuel and transported plutonium separated through that process to Japan and other countries. Thus, France has substantial experience in protecting facilities where weapons-grade material is present and transporting that material both within France and internationally. This experience, along with France's assurances, the great weight given to Executive Branch views, and information obtained in a classified briefing of the NRC staff by the Executive Branch, allows the Commission to conclude that French physical security arrangements will be adequate in the current environment.

V. CONCLUSION AND ISSUANCE OF THE LICENSE

For the reasons stated above, we find that (1) Petitioners have not demonstrated standing; (2) a hearing in this matter would not be in the public interest and assist us in making the statutory determinations; and (3) Petitioners' substantive arguments are without merit. Accordingly, Petitioners' petition to intervene and request for hearing is denied.

The Commission has determined that the export licensing criteria set forth in Section 127 of the AEA have been met and that issuance of this license would 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. Accordingly, we deny Petitioners' request for waiver of the regulations and direct the Office of International Programs to issue license XSNM03327 to the Department of Energy for the export of up to 140 kg of plutonium oxide.

IT IS SO ORDERED.

For the Commission

/RA/

Kenneth R. Hart
Acting Secretary of the Commission

Dated at Rockville, MD
This 15th day of June, 2004

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED 06/16/04

COMMISSIONERS:

SERVED 06/17/04

Nils J. Diaz, Chairman
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of	)	
	)	Application No. XSNM03327
U.S. DEPARTMENT OF ENERGY	)	Docket No. 11005440
(Plutonium Export License)	)	

CLI-04-17

ERRATUM

On page 6, in the second sentence of the first full paragraph, add the word “claim” after “each.”

IT IS SO ORDERED.

For the Commission

/RA/

Kenneth R. Hart
Acting Secretary of the Commission

Dated at Rockville, MD
This 16th day of June, 2004