

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

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David A. Wright  
Annie Caputo  
Bradley R. Crowell

In the Matter of  
U.S. DEPARTMENT OF ENERGY  
(Export of 93.20% Enriched Uranium)

Docket No. 11006398

License No. XSNM3819

**CLI-23-02**

**MEMORANDUM AND ORDER**

**I. INTRODUCTION**

Dr. Alan J. Kuperman requests leave to intervene on an export license application filed by the Department of Energy and National Nuclear Security Administration (DOE/NNSA).<sup>1</sup> DOE/NNSA seeks to export up to 130 kilograms (kg) of highly enriched uranium (HEU) in the form of broken metal to Framatome's facility in Romans-sur-Isère, France. Dr. Kuperman requests an oral hearing, and he asks the NRC to limit the amount of HEU that DOE/NNSA may export under its license.

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<sup>1</sup> See *Petition of Alan J. Kuperman for Leave to Intervene and Request for Hearing* (Mar. 5, 2021) (Petition); *Submission of Additional Information from Alan Kuperman* (Jan. 5, 2023) (Supplemental Filing); Application to Export Enriched Uranium to France, License No. XSNM3819 (Sept. 10, 2020) (ADAMS accession no. ML20262H100) (Application).

For the reasons discussed below, we deny Dr. Kuperman's request for a hearing, and we refer his request to the Office of International Programs to address as a non-adjudicatory comment on the license application.

## II. BACKGROUND

In September 2020, DOE/NNSA submitted to the NRC a license application to export up to 130 kg of HEU (enriched up to 93.20%) in the form of broken metal to Framatome, who will fabricate the HEU into fuel and then transfer the fuel to the Institut Laue-Langevin (ILL) for use in its High Flux Reactor. This proposed export would take place under the U.S.-Euratom Agreement for Cooperation in the Peaceful Uses of Nuclear Energy. The European Commission has confirmed that the French recipients are authorized to receive this type of nuclear material.

The ultimate end user—ILL—is a research center that specializes in neutron science. It uses the High Flux Reactor to produce neutrons that, in turn, are used in a variety of research settings. The High Flux Reactor operates continuously on a 50-day cycle, followed by a shutdown after each cycle.<sup>2</sup>

ILL cannot currently meet required performance objectives through use of commercially available and qualified for use low-enriched uranium (LEU) to fuel the High Flux Reactor. Work towards converting the reactor to LEU fuel remains ongoing, with completion expected by approximately 2031.<sup>3</sup>

On February 3, 2021, the NRC published a notice of opportunity to request a hearing on DOE/NNSA's application.<sup>4</sup> Dr. Kuperman thereafter filed the hearing request now before us.

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<sup>2</sup> *High-flux Reactor - ILL Neutrons for Society*, Institut Laue-Langevin, <https://www.ill.eu/reactor-and-safety/high-flux-reactor> (last visited Feb. 10, 2023).

<sup>3</sup> See *Response to the Petition of Alan J. Kuperman* (Apr. 5, 2021), at 1 (DOE/NNSA Response).

<sup>4</sup> Export license application; opportunity to provide comments, request a hearing, and petition for leave to intervene, 86 Fed. Reg. 8047 (Feb. 3, 2021).

Dr. Kuperman seeks an oral hearing on DOE/NNSA's export application and requests that the Commission limit the amount of HEU that DOE/NNSA would be permitted to export to ILL.<sup>5</sup> DOE/NNSA filed a response to Dr. Kuperman's petition providing specific information that Dr. Kuperman identified in his petition as being needed before the Commission could make an informed license determination.<sup>6</sup> Subsequently, Dr. Kuperman filed supplemental information in support of his position that the Commission should limit the amount of HEU that DOE/NNSA can export to ILL.<sup>7</sup>

In accordance with section 126 of the Atomic Energy Act of 1954, as amended (AEA),<sup>8</sup> and 10 C.F.R. § 110.41, the NRC submitted DOE/NNSA's application to the Executive Branch for review. On May 31, 2023, the State Department provided the NRC with the Executive Branch views. The Executive Branch recommended approval of the requested license. The Executive Branch concluded that the proposed export will not be inimical to the common defense and security of the United States and is consistent with the provisions of the Atomic Energy Act. As part of its views letter, the Executive Branch also included additional technical information relevant to the amount of material requested in the export license application.<sup>9</sup>

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<sup>5</sup> Petition at 21-26.

<sup>6</sup> DOE/NNSA Response at 1.

<sup>7</sup> Supplemental Filing at 1.

<sup>8</sup> 42 U.S.C. § 2155.

<sup>9</sup> See Letter from James R. Warden, Nuclear Energy, Safety and Security, U.S. Department of State, to Peter J. Habighorst, Office of International Programs, U.S. Nuclear Regulatory Commission (May 31, 2023), pp. 6-9 (ML23233A173).

### III. DR. KUPERMAN'S HEARING REQUEST

#### A. Requirements for Obtaining a Hearing on an Export License

In an export licensing proceeding, we will grant a hearing when we find that such a hearing will be in the public interest and will assist us in making the statutory determinations required by the Atomic Energy Act.<sup>10</sup>

Our regulations further provide that a hearing request must “specify, when a person asserts that his interest may be affected, both the facts pertaining to his interest and how it may be affected.”<sup>11</sup> And, “[i]f a hearing request or intervention petition asserts an interest which may be affected, the Commission will consider:

- (1) The nature of the alleged interest;
- (2) How that interest relates to issuance or denial; and
- (3) The possible effect of any order on that interest, including whether the relief requested is within the Commission's authority, and, if so, whether granting relief would redress the alleged injury.”<sup>12</sup>

As we have previously explained, “[p]ersons without an affected interest are not as likely as persons with an affected interest to contribute to our decisionmaking; they are also less likely to be able to show that a hearing would be in the public interest and would assist us in making the requisite statutory and regulatory determinations.”<sup>13</sup>

We first consider Dr. Kuperman's assertion of an interest, and then we address whether Dr. Kuperman has shown that a hearing would be in the public interest and would assist us in making the required statutory and regulatory determinations.

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<sup>10</sup> *U.S. Department of Energy* (Export of 93.20% Enriched Uranium), CLI-16-15, 84 NRC 53, 57 (2016) (quoting 42 U.S.C. § 2155a); 10 C.F.R. § 110.84(a). Our hearing procedures for export license proceedings are generally contained in 10 C.F.R. Part 110, Subparts H, I, and J.

<sup>11</sup> 10 C.F.R. § 110.82(b)(4).

<sup>12</sup> *Id.* § 110.84(b).

<sup>13</sup> *Diversified Scientific Services, Inc.* (Export of Low-Level Waste), CLI-19-2, 89 NRC 229, 231 (2019).

## **B. Analysis of Dr. Kuperman's Hearing Request**

In his petition, Dr. Kuperman asserts both institutional and personal interests.<sup>14</sup>

Dr. Kuperman first provides biographical information describing his past and ongoing professional work on non-proliferation issues and his organization's institutional interests in the topic.<sup>15</sup> Dr. Kuperman asserts that these institutional interests relate to public information and education programs concerning nuclear proliferation, nuclear terrorism, and the use of HEU, and that his "ability to carry out these functions would be significantly and adversely impaired" unless we hold a full, open, and independent review of the issues.<sup>16</sup>

We have previously held, however, that an "institutional interest in providing information to the public" is insufficient to show an affected interest.<sup>17</sup> Dr. Kuperman has not shown that issuing this export license will hinder his ability to continue his educational activities and his activities related to nuclear weapons, proliferation, terrorism, and the use of HEU—that is, he has not shown that his institutional interest will be "affected" by this particular proceeding.<sup>18</sup>

In addition to his institutional interest, Dr. Kuperman asserts "individual interests that could be directly affected by the outcome of this proceeding" in that the "[e]xport of HEU increases global risks of nuclear proliferation and nuclear terrorism, thereby increasing the likelihood that an adversary's nuclear weapon will be detonated in the United States, adversely

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<sup>14</sup> Petition at 3-6.

<sup>15</sup> *Id.* at 3-5. Dr. Kuperman notes that he is the Coordinator of the Nuclear Proliferation Prevention Project, which engages in "research, debate, and public education to ensure that civilian applications of nuclear technology do not foster the spread of nuclear weapons to states or terrorist groups." *Id.* at 3.

<sup>16</sup> *Id.* at 5.

<sup>17</sup> See *Transnuclear, Inc.* (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 5 (1994).

<sup>18</sup> See *Transnuclear, Inc.* (Export of 93.3% Enriched Uranium), CLI-00-16, 52 NRC 68, 72 (2000) (noting that the Commission "has long held" that merely asserting a "generalized interest . . . in minimizing the danger from proliferation" is insufficient to show an affected interest in an export proceeding).

affecting the Petitioner's health, safety, and well-being."<sup>19</sup> Dr. Kuperman, however, fails to provide any evidence of a specific credible threat, let alone any evidence of a specific risk or threat tied to this particular export license application.<sup>20</sup> Dr. Kuperman's concern of a nuclear attack arises not from the export itself but from the unlawful acts of a hypothetical, unnamed adversary of the United States.<sup>21</sup> "[T]he 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."<sup>22</sup> Accordingly, we conclude that Dr. Kuperman has not demonstrated that he possesses an interest that may be affected by this proceeding.

Dr. Kuperman also has not demonstrated how a hearing would be in the public interest and assist us in making the required statutory and regulatory determinations.<sup>23</sup> "[T]o satisfy these factors, a petitioner must show how a hearing would bring new information to light."<sup>24</sup>

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<sup>19</sup> Petition at 5.

<sup>20</sup> See *Diversified Scientific*, CLI-19-2, 89 NRC at 232 (concluding that Petitioners did not possess an interest that may be affected by this proceeding because "none of the asserted harms derive directly and specifically from exports that might be made if the application before us is granted.").

<sup>21</sup> *U.S. Department of Energy* (Plutonium Export License), CLI-04-17, 59 NRC 357, 367 (2004) ("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.").

<sup>22</sup> *Id.* at 365-66 (quoting *Edlow International Co.* (Agent for the Government of India on Application to Export Special Nuclear Material), CLI-76-6, 3 NRC 563, 577 (1976)).

<sup>23</sup> 10 C.F.R. § 110.84(a).

<sup>24</sup> *Diversified Scientific*, CLI-19-2, 89 NRC at 232-33 (citing *U.S. Department of Energy*, CLI-16-15, 84 NRC at 58 n.25).

Here, Dr. Kuperman argues that “[o]nly a public hearing in which issues related to the ostensible justification for the proposed HEU export are fully aired and subjected to public scrutiny can serve to resolve legitimate public questions concerning both the need for granting this license application and the risks associated with such action.”<sup>25</sup> In this regard, Dr. Kuperman maintains that “a hearing would bring to light” specific information “which thus far has been withheld from the public,” including “when ILL will exhaust its current HEU supply based on the reactor’s planned operating schedule; the number of years that the proposed export would last based on the reactor’s planned operating schedule; and the earliest date that the operator could complete conversion to LEU fuel.”<sup>26</sup> Dr. Kuperman asserts that a hearing would be in the public interest and assist the Commission in making the required statutory and regulatory determinations because it would “compel the Applicant to provide such information publicly.”<sup>27</sup> In his supplemental filing, Dr. Kuperman provided additional related information, including that “the operator’s existing supply of HEU fuel may last until 2025 or later,” “the reactor’s safety authorization expires in 2030,” and “the operator plans to insert an LEU fuel lead test assembly in 2029.”<sup>28</sup>

In its response to Dr. Kuperman’s petition, DOE/NNSA provided information relevant to that identified by Dr. Kuperman, including that the proposed export of 130 kg of HEU would support the fabrication of approximately four years’ worth of fuel; that the mid-2022 date initially projected for ILL’s receipt of the material factored in sufficient lead time for fuel fabrication to

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<sup>25</sup> Petition at 24.

<sup>26</sup> *Id.* at 13, 21-26.

<sup>27</sup> *Id.* at 25.

<sup>28</sup> Supplemental Filing at 2.

support continued operation of ILL's High Flux Reactor; and that the High Flux Reactor is expected to convert to the exclusive use of a qualified LEU fuel by approximately 2031.<sup>29</sup>

In its letter, the Executive Branch included information relevant to Dr. Kuperman's concerns, including that the HEU export, based on updated operational projections, would provide enough fuel for three to four years of operation, from mid-2026 until late 2029, assuming three to four cycles each year; that ILL's current HEU inventory is sufficient to last approximately through August 2026; and that the U.S. government and ILL are working towards a conversion of the High Flux Reactor to LEU by approximately 2031, while also seeking opportunities to shorten that timeframe. Further, the Executive Branch recognized that there is some inherent uncertainty regarding the High Flux Reactor's operational schedule going forward and the as-yet unknown results of the LEU fuel irradiation still to be performed.

Although Dr. Kuperman has extensive knowledge of non-proliferation issues, he has not adequately specified what new information would be provided at a hearing that is not already available to the Commission. The crux of Dr. Kuperman's argument is that the Commission should not approve the export of HEU beyond the recipient's demonstrated need.<sup>30</sup> But the categories of information he identified as necessary for public participation to assess the recipient's need have already been provided.<sup>31</sup> Dr. Kuperman fails to explain how a hearing

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<sup>29</sup> DOE/NNSA Response at 1.

<sup>30</sup> Supplemental Petition at 2 (stating that "it is not apparent that the recipient requires the full amount of HEU requested in the export license application" and thus, "Commission approval of the full amount of HEU in the license request would raise substantial risk of creating a surplus of U.S.-origin HEU abroad, which would be inimical to the common defense and security, thus violating U.S. non-proliferation law and policy"); Petition at 22 ("Petitioner does not necessarily oppose the granting of the license application *for some portion* of the HEU sought, assuming that the requisite need can be demonstrated.").

<sup>31</sup> See DOE/NNSA Response at 1; Supplemental Filing at 2; *see also U.S. Department of Energy* (Export of 93.35% Enriched Uranium), CLI-20-2, 91 NRC 103, 114 (2020) ("In export proceedings, we must be persuaded by the Petitioners that holding a hearing would result in the acquisition of new information that will assist in making statutory determinations concerning this application that we otherwise could not make based on the existing record."); *Transnuclear*,

would add additional clarity to the points that he already made in his petition and supplemental filing.<sup>32</sup>

Even though Dr. Kuperman has not satisfied the NRC's hearing requirements in Part 110, the NRC can still consider the points raised in his petition and supplemental filing. Part 110 explicitly encourages written comments from the public regarding export license applications and provides that the NRC will consider and, if appropriate, respond to any comments received.<sup>33</sup> In our view, Dr. Kuperman's petition and supplemental filing are properly considered as a public comment on the application. We therefore refer the amended petition to the Office of International Programs to address as a public comment pursuant to 10 C.F.R. § 110.81(a).

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CLI-00-16, 52 NRC at 72 (explaining that nothing in the petitioner's filings indicates it will be able to "present significant information not already available to and considered by the Commission").

<sup>32</sup> *U.S. Department of Energy*, CLI-20-2, 91 NRC at 115 (denying hearing requests where petitioners "already provided robust discussion and detailed analyses, and we have ample information in the existing record to assess the merits of the issues [petitioners] have raised in making our licensing determination").

<sup>33</sup> 10 C.F.R. § 110.81.

#### IV. CONCLUSION

We deny Dr. Kuperman's request for a hearing. For the reasons discussed above, we find that the request does not meet the established standard for holding a hearing because Dr. Kuperman does not demonstrate that a hearing would be in the public interest and would assist us in making the required statutory and regulatory determinations. The NRC Staff should consider and address the amended petition as a public comment on DOE/NNSA's application, consistent with 10 C.F.R. § 110.81(a).

IT IS SO ORDERED.



For the Commission

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Brooke P. Clark  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 11<sup>th</sup> day of September 2023.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
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(Export of 93.20% Enriched Uranium) )  
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **COMMISSION MEMORANDUM AND ORDER (CLI-23-02)**, have been served upon the following persons by Electronic Information Exchange or by electronic mail as indicated by an asterisk.

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U.S. DEPARTMENT OF ENERGY  
(Docket No. 11006398)  
**COMMISSION MEMORANDUM AND ORDER (CLI-23-02)**

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,  
this 11<sup>th</sup> day of September 2023