

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Christopher T. Hanson, Chair  
David A. Wright  
Annie Caputo  
Bradley R. Crowell

In the Matter of

NUCLEAR FUEL SERVICES, INC.

(License Amendment Application)

Docket No. 70-143-LA

**CLI-23-03**

**MEMORANDUM AND ORDER**

Erwin Citizens Awareness Network, Inc. (ECAN) has appealed the Atomic Safety and Licensing Board's decision denying its petition to intervene and hearing request.<sup>1</sup> In its petition to intervene, ECAN proposed four contentions related to the request of Nuclear Fuel Services, Inc. (NFS) to amend the existing license for its Erwin, Tennessee nuclear fuel fabrication facility. For the reasons detailed below, we affirm the Board's decision.

**I. BACKGROUND**

NFS requested an amendment to its existing 10 C.F.R. Part 70 special nuclear materials license in November 2021.<sup>2</sup> If granted, the amendment would allow NFS to provide uranium

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<sup>1</sup> *Notice of Appeal of LBP-23-02 by Petitioner Erwin Citizens Awareness Network, Inc. and Brief in Support of Appeal* (Feb. 24, 2023) (ECAN Appeal).

<sup>2</sup> Letter from Tim Knowles, NFS, to NRC Document Control Desk (Nov. 18, 2021) (ADAMS accession no. ML21327A099) (License Amendment Application).

purification and conversion services at its Erwin, Tennessee facility.<sup>3</sup> After entering a contract with the U.S. Department of Energy's National Nuclear Security Administration (NNSA) for the "U-Metal Project," NFS submitted this license amendment request. The contract is intended to bridge the gap between the shutdown of the legacy uranium processing equipment at the NNSA Y-12 National Security Complex in Oak Ridge, Tennessee, and the transition to a new facility at Y-12 that will use new electrorefining technology to purify high-enriched uranium metal.<sup>4</sup>

In support of the license amendment request, NFS submitted a supplemental environmental report (Supplemental ER) pursuant to 10 C.F.R. § 51.60(a).<sup>5</sup> Because NFS had previously prepared an environmental report for its 2009 license renewal application, its Supplemental ER for this request "evaluates the environmental impacts associated with the addition of the U-Metal Project and documents changes to key information between 2009 and this submittal."<sup>6</sup>

In response to a notice of hearing opportunity published in the *Federal Register*, ECAN filed a petition proffering four contentions challenging various aspects of the NFS license

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<sup>3</sup> *Id.* at 1 (unnumbered).

<sup>4</sup> *Id.* at 1-2 (unnumbered).

<sup>5</sup> In a February 24, 2022, response, NFS provided a version of the supplemental ER suitable for public release. See Letter from Tim Knowles, NFS, to NRC Document Control Desk (Feb. 24, 2022) (ML22066B004), Encl. (ML22066B005) (Supplemental ER). That publicly available version of the Supplemental ER is the version referenced in this decision.

<sup>6</sup> License Amendment Application at 3 (unnumbered); see *also* 10 C.F.R. § 51.60(a) ("If the application is for an amendment to . . . a license . . . for which the applicant has previously submitted an environmental report, the supplement to applicant's environmental report may be limited to incorporating by reference, updating or supplementing the information previously submitted to reflect any significant environmental change, including any significant environmental change resulting from operational experience or a change in operations or proposed decommissioning activities.").

amendment request.<sup>7</sup> Both the NRC Staff and NFS argued that none of ECAN's contentions were admissible.<sup>8</sup> The Board found that ECAN established its representational standing in the proceeding but did not find any of its four contentions admissible.<sup>9</sup>

## II. DISCUSSION

ECAN has appealed the Board's decision under 10 C.F.R. § 2.311(c), which allows a petitioner whose hearing request has been wholly denied to appeal as of right. To be admitted for hearing, a proposed contention must set forth with particularity the matters to be raised, be within the scope of the hearing, be material to the findings the agency must make in taking the requested action, be factually supported, and show that a genuine dispute exists with the application.<sup>10</sup> We will defer to the Board's rulings on contention admissibility unless an appeal demonstrates an error of law or abuse of discretion.<sup>11</sup> As discussed below, we find no Board error or abuse of discretion and affirm the Board's decision.

### A. Contention A: Nuclear Weapons Proliferation Assessment

In Contention A, ECAN asserted that the new process at NFS will generate purified high-enriched uranium material for inclusion in nuclear weapons.<sup>12</sup> ECAN further argued that the U.S. nuclear weapons program is "controversial," "arguably illegal," and "violative of

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<sup>7</sup> *Amended Petition of Erwin Citizens Awareness Network for Leave to Intervene in Nuclear Fuel Services, Inc. License Amendment Proceeding, and Request for a Hearing* (Oct. 31, 2022) (Petition to Intervene).

<sup>8</sup> *NRC Staff Answer to Erwin Citizens Awareness Network's Petition to Intervene and Request for Hearing* (Nov. 23, 2022) (Staff Answer to Petition to Intervene); *Nuclear Fuel Services, Inc.'s Answer to Erwin Citizens Awareness Network's Hearing Request and Petition for Leave to Intervene* (Nov. 25, 2022) (NFS Answer to Petition to Intervene).

<sup>9</sup> LBP-23-2, 97 NRC 8, 57-58 (2023).

<sup>10</sup> See 10 C.F.R. § 2.309(f)(1)(i)-(vi).

<sup>11</sup> See, e.g., *Crow Butte Resources, Inc.* (Marsland Expansion Area), CLI-14-2, 79 NRC 11, 13-14 (2014).

<sup>12</sup> LBP-23-2, 97 NRC at 24 (quoting Petition to Intervene at 8).

international norms.”<sup>13</sup> According to ECAN, under the National Environmental Policy Act (NEPA), “the NRC is required to investigate, analyze and publicly disclose a nuclear weapons proliferation assessment,<sup>14</sup> discussing the impacts and policy implications of the new NFS purification process on the U.S. weapons program and prospects.”<sup>15</sup>

The Board found Contention A inadmissible because it did not fall within the scope of the proceeding or raise a genuine dispute regarding a material issue of law or fact.<sup>16</sup> In reaching the conclusion that the contention is outside the scope of the proceeding, the Board applied two Commission decisions concerning enrichment facilities, where we found contentions seeking proliferation assessments under NEPA and the AEA inadmissible.<sup>17</sup> In *LES*, we found the NEPA-based contention beyond the scope of the proceeding because a domestic licensing action’s impact on nuclear nonproliferation concerns is speculative and lacks a proximate causal connection to the proposed facility.<sup>18</sup> In *USEC*, we found the safety-based contention to be

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<sup>13</sup> *Id.* at 24-25 (quoting Petition to Intervene at 11).

<sup>14</sup> The term “nuclear proliferation assessment statement” is used in the Atomic Energy Act of 1954, as amended (AEA), in the context of U.S. agreements for cooperation with a foreign nation under sections 123 and 131. It does not appear that ECAN wants the NRC to produce this type of statement. Accordingly, the term “proliferation assessment” as used in this order does not refer to the statement described in sections 123 and 131 of the AEA.

<sup>15</sup> LBP-23-2, 97 NRC at 24 (quoting Petition to Intervene at 8). ECAN argued that the NRC’s responsibility under the AEA to consider whether granting a license would be inimical to the common defense and security of the United States or the health and safety of the public requires the NRC’s NEPA analysis to “consider the full range of risks to the common defense and security potentially arising from its licensing decision.” *Id.* at 25 (quoting Petition to Intervene at 12). The Board found that ECAN’s contention ultimately was a contention of omission, challenging the failure of the Supplemental ER to include a proliferation analysis. *Id.* at 31. The Board considered whether a “proliferation assessment” was required under either the AEA or NEPA. *Id.* at 31-35.

<sup>16</sup> *Id.* at 35 (citing 10 C.F.R. § 2.309(f)(1)(iii), (vi)).

<sup>17</sup> *Id.* at 31-33.

<sup>18</sup> *Id.* at 31-32 (citing *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 724 (2005)).

beyond the scope of the proceeding because it “raise[d] issues of international policy unrelated to the NRC’s licensing criteria.”<sup>19</sup> The Board also noted that, in response to a comment on a petition for rulemaking, the Commission addressed all types of fuel cycle facilities and stated that proliferation assessments should not be required because existing NRC requirements already address proliferation risks and concerns at all fuel cycle facilities.<sup>20</sup> Because these cases and the rulemaking statements indicate that neither the AEA nor NEPA requires the NRC to produce a proliferation assessment in a fuel cycle facility licensing action, the Board found Contention A to be beyond the scope of the proceeding.<sup>21</sup>

In addition, ECAN disputed NFS’s assertion that the facility will not produce nuclear weapons or nuclear weapons material. According to the Board, ECAN did not establish the required genuine material dispute because the end use of the material processed at the NFS facility “is not a relevant factor for the purpose of determining whether a proliferation impacts analysis is required under the AEA or NEPA.”<sup>22</sup> As the Board noted, the fabrication of purified uranium metal at the NFS facility falls within the NRC’s Part 70 regulatory framework, and “Part 70’s health, safety, and security protections are designed to prevent nuclear equipment and material, as well as classified information and sensitive technologies, from becoming available to unauthorized foreign or domestic individuals or entities.”<sup>23</sup> The Board applied the

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<sup>19</sup> *Id.* at 32 (quoting *USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 463 (2006)).

<sup>20</sup> *Id.* (citing Nuclear Proliferation Assessment in Licensing Process for Enrichment or Reprocessing Facilities, 78 Fed. Reg. 33,995, 34,007 (June 6, 2013) (Denial of Petition for Rulemaking) (“[T]he existing NRC licensing framework is adequate to address proliferation concerns associated with nuclear fuel cycle facilities by including requirements to prevent the unauthorized disclosure of classified matter and sensitive technologies, and provide physical protection of nuclear equipment and materials.”)).

<sup>21</sup> LBP-23-2, 97 NRC at 32-33.

<sup>22</sup> *Id.* at 34.

<sup>23</sup> *Id.*

Commission's previous reasoning to find that neither the AEA nor NEPA mandates preparation of proliferation assessments due to the comprehensiveness of Part 70 and the speculative nature of a proliferation assessment that would be based on information and analyses outside the expertise of the NRC.<sup>24</sup>

On appeal, ECAN claims that the Board improperly transformed a determination on contention admissibility into a decision on the merits of the contention.<sup>25</sup> In particular, ECAN asserts that it is relevant whether the uranium metal that would be produced at NFS would be used in nuclear weapons.<sup>26</sup> ECAN faults the Board for "using circular reasoning" to determine that a weapons proliferation analysis is not required because Part 70 does not cover nuclear weapons facilities.<sup>27</sup> ECAN further claims that the failure to undertake a proliferation assessment violates NEPA because it is improper segmentation.<sup>28</sup>

While ECAN is correct that the contention admissibility criteria do not serve as a "fortress to deny intervention," they do serve to frame issues for an evidentiary hearing.<sup>29</sup> And while hearings resolve the substantive merits of a contention, the contention admissibility stage is the proper time to examine whether the issue raised should be subject to a hearing—in this case, the Board found that the issue was not within the scope of the hearing and did not raise a

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<sup>24</sup> *Id.* at 34-35.

<sup>25</sup> ECAN Appeal at 12.

<sup>26</sup> *Id.* at 14-17.

<sup>27</sup> *Id.* at 14.

<sup>28</sup> *Id.* at 18.

<sup>29</sup> *See id.* at 13 (quoting *Power Authority of the State of New York (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3)*, CLI-00-22, 52 NRC 266, 295 (2000)). In adopting the contention standard in section 2.309(f), the Commission stated that the criteria are "necessary to ensure that hearings cover only genuine and pertinent issues of concern and that the issues are framed and supported concisely enough at the outset to ensure that the proceedings are effective and focused on real, concrete issues." Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2189-90 (Jan. 14, 2004).

genuine material dispute with the applicant.<sup>30</sup> ECAN argues that the Board's application of the contention admissibility criteria "transformed a preliminary, procedural decision. . . into a summary ruling on the merits."<sup>31</sup> We disagree. Even assuming that the material produced at the NFS facility would ultimately be included in nuclear weapons, as ECAN argued, the Board determined that such an end use would still not make ECAN's contention fall within the scope of the proceeding or raise a genuine dispute on a material issue with the applicant. The Board laid out its reasoning for this legal determination in its decision. We find that ECAN has not shown that the Board erred in its treatment of Contention A.

With respect to ECAN's claims related to the AEA and nonproliferation, we continue to find that our existing regulations fulfill our statutory mandate.<sup>32</sup> The AEA grants the NRC broad regulatory latitude to protect public health and safety, common defense, and security in its domestic licensing activities. While the AEA does not prescribe that the NRC explicitly consider nuclear proliferation as a prerequisite to domestic licensing, NRC safety regulations on information security, physical security, and material control adequately address nonproliferation concerns as part of a comprehensive regulatory infrastructure.<sup>33</sup> Given the NRC's comprehensive regulatory framework, ongoing oversight, and active inter-agency cooperation, a nuclear nonproliferation assessment is not necessary to ensure the protection of the public health and safety or common defense and security.

Additionally, ECAN raises issues related to the wisdom of the nuclear weapons policy of the United States. The executive and legislative branches of the federal government are

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<sup>30</sup> See LBP-23-2, 97 NRC at 35 (citing 10 C.F.R. § 2.309(f)(1)(iii), (vi)).

<sup>31</sup> ECAN Appeal at 12.

<sup>32</sup> See Denial of Petition for Rulemaking, 78 Fed. Reg. at 34,001-02.

<sup>33</sup> The NRC regulations and the Staff's safety reviews consider issues such as physical security and protection against radiological sabotage, theft, and diversion, which are relevant to nonproliferation. See, e.g., 10 C.F.R. pts. 73, 74, and 95.

responsible for developing national nuclear nonproliferation policies and goals. ECAN's claim that "[t]he U.S. nuclear weapons program may be unlawful under at least two international treaties" is outside of the NRC's authority.<sup>34</sup> The implementation of U.S. government policies on nonproliferation is a coordinated effort of the federal agencies, with each contributing according to its area of expertise and assigned responsibilities.<sup>35</sup> In this regard, the NRC's responsibility is to issue a license for a nuclear facility to possess nuclear material only if it determines that the health and safety of the public and the common defense and security of the nation will be protected.

With respect to ECAN's NEPA claims, a "reasonably close causal relationship" must exist between the proposed action and a purported environmental effect to compel consideration in the agency's NEPA analysis.<sup>36</sup> The action before the agency is a license amendment that would allow NFS to provide uranium purification and conversion services. NFS disputed ECAN's claim that the amendment authorizes activities related to nuclear weapons and stated that the "primary licensed activity is the production of nuclear fuel for the United States Navy."<sup>37</sup> The AEA and NRC regulations prohibit licensees from using special nuclear material to construct nuclear weapons; therefore, the license amendment would not allow NFS to produce a nuclear weapon or a component of a nuclear weapon.<sup>38</sup> Whether some of the

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<sup>34</sup> ECAN Appeal at 19.

<sup>35</sup> See Denial of Petition for Rulemaking, 78 Fed. Reg. at 33,996.

<sup>36</sup> *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 Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 & n.7 (1983) (stating that courts must "draw a manageable line between those causal changes that may make an actor responsible for an effect and those that do not").

<sup>37</sup> LBP-23-2, 97 NRC at 26; see also Supplemental ER at 2.

<sup>38</sup> AEA § 53(e)(6) ("[S]pecial nuclear material shall be distributed only on terms, as may be established by rule of the Commission, such that no user will be permitted to construct an



U-metal produced at NFS may be further processed by NNSA at a later date to be used in a nuclear weapon is not within the NRC's scope of authority.<sup>39</sup> To the extent that any NEPA analysis is necessary, other federal agencies possess the relevant expertise.<sup>40</sup> For this proposed action, there is not a sufficiently close causal relationship between the agency decision and the potential for NFS's new processes to cause an increase in proliferation; in other words, the causal chain under NEPA is too attenuated.<sup>41</sup>

ECAN further argues that the NRC's failure to perform a proliferation assessment is improper segmentation because "NFS's part in the nuclear weapons supply chain is obfuscated and there is no big-picture understanding nor accountability for the sprawling, trillion-dollar weapons enterprise."<sup>42</sup> First, ECAN makes this argument for the first time on appeal.

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atomic weapon."); 10 C.F.R. § 70.32(a)(6) ("The licensee shall not use the special nuclear material to construct an atomic weapon or any component of an atomic weapon.").

<sup>39</sup> See, e.g., *Metro. Edison*, 460 U.S. at 774; *Pub. Citizen*, 541 U.S. at 767.

<sup>40</sup> See LBP-23-2, 97 NRC at 34 n.39 (noting that DOE has prepared an EIS that contains a nonproliferation assessment for NNSA activities conducted at the Y-12 National Security Complex); Denial of Petition for Rulemaking, 78 Fed. Reg. at 33,996 ("It would be neither prudent nor useful for the NRC to devote resources in a domestic licensing proceeding to address national policy objectives that are already being addressed by the appropriate Federal agencies with the expertise and mandate to do so.").

<sup>41</sup> First, another federal agency would need to determine that U-metal from the NFS facility should be further processed into a nuclear weapon component, at which time a NEPA analysis could be undertaken. Second, counsel for NFS stated that the services to be provided under the proposed license amendment "are, essentially, a one-for-one replacement of like-for-like activities [currently being performed at Y-12]; that there is no net change in terms of what is being done. The only real change is where it's being done." Tr. at 44. As noted above, DOE has already prepared an EIS that covers the Y-12 National Security Complex. LBP-23-2, 97 NRC at 34 n.39 (citing U.S. Department of Energy, National Nuclear Security Administration, "Final Site-Wide Environmental Impact Statement for the Y-12 National Security Complex," DOE/EIS-0387 (Feb. 2011) (Y-12 EIS)). We also note that DOE has prepared an EIS that addresses stockpile stewardship and management programmatically, including an evaluation of proliferation impacts. Y-12 EIS at 1-23 (citing U.S. Department of Energy, National Nuclear Security Administration, "Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management," DOE/EIS-0236 (Sept. 1996)).

<sup>42</sup> ECAN Appeal at 18.

Therefore, we need not consider it.<sup>43</sup> Second, ECAN acknowledges but has not addressed the environmental impact statement that DOE has already prepared for Y-12 site-wide activities, which covers the process that this license amendment would authorize. Therefore, ECAN has not explained why the NRC's consideration of this process as part of a license amendment to transition these same functions to the NFS facility should be considered improper segmentation.<sup>44</sup>

Finally, to the extent that ECAN would like the NRC to evaluate potential extraterritorial environmental effects of its domestic licensing decision, the NRC is not required to evaluate such impacts under NEPA or its regulations.<sup>45</sup> The domestic environmental impacts of proliferation, as discussed above, are too attenuated to necessitate inclusion in a NEPA analysis.

In sum, we find that ECAN does not point to any Board error, and we affirm the Board's determination that Contention A is inadmissible.

#### **B. Contention B: Unduly Restrictive Purpose and Need Statement**

As background, the NNSA currently conducts both purification and conversion activities at its Y-12 plant in Oak Ridge, Tennessee.<sup>46</sup> The NNSA intends to stop using the aging

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<sup>43</sup> *USEC*, CLI-06-10, 63 NRC at 458.

<sup>44</sup> See NFS Answer to Petition to Intervene at 11 n.42 (citing Petition to Intervene at 15 (citing Y-12 EIS)). NFS cited to the environmental impact statement that NNSA prepared for the Y-12 site, which was cited by ECAN in its petition to intervene, and argued that ECAN's claim that the potential environmental impacts of U.S. policy related to the nuclear weapons program have not been evaluated under NEPA is factually incorrect.

<sup>45</sup> See *NRDC v. NRC*, 647 F.2d 1345, 1365-68 (D.C. Cir. 1981) (finding that the NRC need not evaluate environmental impacts felt in foreign nations even when approving exports directly to those nations); 10 C.F.R. § 51.1 ("These regulations do not apply . . . to any environmental effects which NRC's domestic licensing and related regulatory functions may have upon the environment of foreign nations.").

<sup>46</sup> *Nuclear Fuel Services, Inc.'s Brief in Opposition to Erwin Citizens Awareness Network's Appeal of LBP-23-02* (Mar. 21, 2023), at 12 (NFS Opposition to Appeal).

equipment used for these processes in the 2023 timeframe and replace the *purification* equipment with new equipment that will use a new electrorefining technology.<sup>47</sup> While the NNSA may replace the legacy *conversion* equipment in the future, it does not currently have plans to do so.<sup>48</sup>

In Contention B, ECAN claimed that the purpose and need statement of the Supplemental ER was too narrow and time-limited, which resulted in inadequate consideration of the no-build alternative.<sup>49</sup> According to ECAN, the continued functioning of an old purification line at Y-12 obviates the need for a change at NFS to bridge the projected interruption of high-enriched uranium metal purification.<sup>50</sup> The Board ruled that Contention B did not raise a genuine dispute with the application because ECAN did not address “critical facts” in the Supplemental ER.<sup>51</sup> NFS stated that the project is intended “to create a ‘separate process of converting isotopes to metal, *as well as* creating redundant capacity’ if issues arise with the new electrorefining process at the Y-12 facility.”<sup>52</sup> On appeal, ECAN claims that these “critical facts” were not in the Supplemental ER but were provided for the first time at oral argument.<sup>53</sup> ECAN also argues that “[t]he indefinite continuation of the old refinement [purification] operations at

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<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 12-13.

<sup>49</sup> Petition to Intervene at 16.

<sup>50</sup> LBP-23-2, 97 NRC at 36 (quoting Petition to Intervene at 17).

<sup>51</sup> *Id.* at 40.

<sup>52</sup> *Id.* (emphasis added) (quoting Tr. at 68 and citing NFS Answer to Petition to Intervene at 13 (quoting Supplemental ER at 1)).

<sup>53</sup> ECAN Appeal at 20.

Y-12 undermines any justification for expenditure of millions of public dollars to build redundancy at NFS.”<sup>54</sup>

NFS and the Staff respond by noting that the “critical facts” ECAN claims were not provided until the oral argument were in the Supplemental ER.<sup>55</sup> In addition, ECAN is reiterating arguments it made before the Board, where it argued that the old production process in Building 9212 could act as a redundancy until the new process is fully operational.<sup>56</sup> But, the Staff notes, the process in Building 9212 only relates to the purification of uranium metal and does not include the ability to convert oxides to metal.<sup>57</sup> NFS asserts that the purpose and need for the proposed action is two-fold: (1) to provide a conversion capability when the aging Y-12 equipment shuts down indefinitely, and (2) to “hedge against the technology risk associated with new purification equipment at Y-12 that is expected to come online in 2023 at the earliest.”<sup>58</sup> NFS also refutes ECAN’s assertion that it had “no burden to show that it disputes the need for a redundant refinement line at NFS”<sup>59</sup> by pointing to 10 C.F.R. § 2.309(f)(1)(vi), which provides that

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<sup>54</sup> *Id.* at 22; *see also id.* at 20-21 (arguing that the no-build alternative does not adequately account for the fact that the old production process in Building 9212 could act as a redundancy until the new process is fully operational).

<sup>55</sup> NFS Opposition to Appeal at 14-15 (citing Supplemental ER at 1); *NRC Staff Answer in Opposition to Erwin Citizens Awareness Network, Inc.’s Appeal of LBP-23-02* (Mar. 21, 2023), at 9 (Staff Opposition to Appeal) (citing Supplemental ER at 1). The Board’s decision also notes that these statements are in the Supplemental ER. LBP-23-2, 97 NRC at 39-40.

<sup>56</sup> Staff Opposition to Appeal at 9.

<sup>57</sup> *Id.* at 9-10; *see also* LBP-23-2, 97 NRC at 38.

<sup>58</sup> NFS Opposition to Appeal at 13; *see also* License Amendment Application at 1-2 (unnumbered).

<sup>59</sup> ECAN Appeal at 21. ECAN explains that its “point was that the no-build alternative as postulated by NFS did not adequately expose the sheer, unjustified redundancy of the new NFS line.” *Id.*

the petitioner must provide sufficient information to show a genuine dispute on a material issue of law or fact.<sup>60</sup>

We find that the Supplemental ER contained the dual purpose of and need for the proposed action, as the Board noted.<sup>61</sup> ECAN provides no reason why it could not have disputed these claims in its petition to intervene and points to no error or abuse of discretion in the Board's holding. ECAN reiterates its argument before the Board that the redundancy at NFS is unjustified.<sup>62</sup> But ECAN does not point to any error or abuse of discretion in the Board's finding that ECAN did not raise a genuine dispute with the applicant because one of the NNSA's purposes is to provide a replacement for conversion capabilities, not just purification. Therefore, we affirm the Board's decision on Contention B.

**C. Contention C: Inadequate Consideration of Legacy Contamination in Cumulative Effects Analysis**

In Contention C, ECAN asserted that the Supplemental ER omits required information related to legacy contamination, which leads to an inadequate cumulative effects analysis.<sup>63</sup> ECAN claimed that the Supplemental ER is missing information related to contamination from (1) radioisotopes, including plutonium and uranium-235 in the Nolichucky River downstream of the Erwin site; (2) undiscovered PFAS (per- and polyfluoroalkyl substances) chemicals that could be present at the Erwin site; and (3) the presence of unremediated chemicals in the groundwater at the site. ECAN further argued that unanalyzed karst features, nearby sinkholes, and insufficiently modeled groundwater flow on the site led to an incomplete assessment of the

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<sup>60</sup> NFS Opposition to Appeal at 16.

<sup>61</sup> Supplemental ER at 1; LBP-23-2, 97 NRC at 40.

<sup>62</sup> See *Interim Storage Partners LLC* (WCS Consolidated Interim Storage Facility), CLI-20-15, 92 NRC 491, 498 (2020) (explaining that an appeal must address the licensing board's reasoning for rejecting a contention and that "it is not enough for an appellant to simply repeat the arguments it made before the Board and hope for a different result from the Commission").

<sup>63</sup> Petition to Intervene at 21-22.

proposed amendment's potential environmental impacts.<sup>64</sup> The Board found Contention C to be a contention of omission challenging the failure of the Supplemental ER to address historical contamination at the Erwin facility and considered four categories of claims for this contention: (1) historical radiological contamination, (2) PFAS groundwater contamination, (3) sinkhole activity and groundwater plumes, and (4) air emissions.<sup>65</sup> The Board concluded that ECAN's claims were outside the scope of the proceeding, were otherwise unsupported, or did not raise a genuine dispute on a material issue of law or fact.<sup>66</sup>

**1. Historical Radiological Contamination**

ECAN argued that the Supplemental ER should have contained a cumulative impacts analysis that considered historical contamination.<sup>67</sup> The Board cited the NRC's environmental assessment for the renewal of NFS's license,<sup>68</sup> which identified specific radioisotopes and their quantities resulting from Erwin site effluents and discussed cumulative impacts to surface water and groundwater resources.<sup>69</sup> The Board noted that the Supplemental ER and NFS's June 2022 response to the Staff's request for additional information (RAI Response)<sup>70</sup> provided updated information on radiological effluents, which showed no amounts exceeding regulatory

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<sup>64</sup> *Id.* at 24-34.

<sup>65</sup> LBP-23-2, 97 NRC at 49-52.

<sup>66</sup> *Id.* at 49.

<sup>67</sup> ECAN Appeal at 22.

<sup>68</sup> "Final Environmental Assessment for the Proposed Renewal of U.S. Nuclear Regulatory Commission License No. SNM-124 for Nuclear Fuel Services, Inc." (Oct. 2011) (ML112560265) (License Renewal EA).

<sup>69</sup> LBP-23-2, 97 NRC at 50 (citing License Renewal EA at iv, 3-31 to 3-34); License Renewal EA at 4-13, 4-15.

<sup>70</sup> Letter from Tim Knowles, NFS, to NRC Document Control Desk (June 30, 2022), Attach. 1, "NFS Response to the Request for Additional Information" (ML22193A034) (RAI Response).

limits.<sup>71</sup> NFS represented that “the U-Metal process is expected to cause minimal gaseous or liquid effluent impacts.”<sup>72</sup> And the Board further found that ECAN did not show that the activities authorized by the license amendment would cause an increase in radiological contamination.<sup>73</sup> The Board also found that many of ECAN’s concerns were not related to the current license amendment request but historical contamination, which was evaluated in the Supplemental ER.<sup>74</sup>

On appeal, ECAN argues that cumulative impacts include past actions and there is nothing in the Supplemental ER to indicate that NFS has taken action to prevent future contamination, thus making future contamination reasonably foreseeable.<sup>75</sup> With respect to the Board’s findings that the Supplemental ER addressed radiological contamination, ECAN argues that it was not required to consider information outside of the Supplemental ER, including the License Renewal EA and RAI Response referenced by the Board.<sup>76</sup>

We find that ECAN does not identify any Board error or abuse of discretion with respect to this aspect of Contention C. ECAN argues that a cumulative impacts analysis was not conducted, but neither NFS nor the Staff disputed the premise that cumulative impacts should be considered. Rather, NFS and the Staff identified where the Supplemental ER and other documents discussed historical contamination relevant to the license amendment request. Therefore, the Board found that ECAN “fails to substantiate its claims that relevant data is

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<sup>71</sup> LBP-23-2, 97 NRC at 50.

<sup>72</sup> *Id.* (citing RAI Response at 1-2, 6-8, 40).

<sup>73</sup> *Id.*

<sup>74</sup> *Id.*

<sup>75</sup> ECAN Appeal at 24.

<sup>76</sup> *Id.* at 24-25.

missing and fails to supply its own supporting data.”<sup>77</sup> The Board determined that (1) the License Renewal EA discussed radioisotopes in facility effluents; (2) the license amendment request provided updated data showing that radiological effluents and Erwin facility-associated levels of stream, soil, and vegetation radioactivity are within regulatory limits; and (3) NFS demonstrated that effluents are not expected to materially change if the license amendment request is approved.<sup>78</sup> We find that ECAN did not explain why the proposed amendment would cause a significant environmental change with respect to the NRC’s previous conclusion on cumulative impacts, and therefore, ECAN did not point to any Board error.

ECAN also argues that it was not required to look beyond the Supplemental ER and that the Board erred by relying on the License Renewal EA and RAI Response. As an initial matter, we find that ECAN improperly raises this argument for the first time on appeal.<sup>79</sup> In any event, ECAN itself cited these documents in its petition to intervene.<sup>80</sup> NFS and the Staff then responded to ECAN’s petition to intervene with citations to these documents.<sup>81</sup> ECAN failed to object to the use of these documents before the Board.

Even if we were to consider ECAN’s argument, it was reasonable for the Board to look to these documents in this license amendment proceeding. With respect to the License Renewal EA, NFS requested an amendment to its existing materials license, and section 51.60(a) allows license amendment applicants that have already submitted an environmental report to limit their environmental report to an update or supplement of “information previously submitted to reflect

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<sup>77</sup> LBP-23-2, 97 NRC at 49-50.

<sup>78</sup> *Id.* at 50 (citing License Renewal EA at vi, 3-31 to 3-34; RAI Response at 1-2, 6-8, 40).

<sup>79</sup> See *USEC*, CLI-06-10, 63 NRC at 458.

<sup>80</sup> Petition to Intervene at 19 n.36, 20 n.48, & 31 n.74.

<sup>81</sup> NFS Answer to Petition to Intervene at 16, 18, 19, 20, 21, 22-23; Staff Answer to Petition to Intervene at 19, 20 & n.98, 22-23, 24.



any significant environmental change.”<sup>82</sup> Accordingly, in the introduction of the Supplemental ER, NFS stated that “[t]he contents of this Supplemental Environmental Report address the impacts to human health and the environment required to construct and operate the Uranium Purification and Conversion Services process, and update information last provided by NFS in its 2009 Environmental Report for the Renewal of Special Nuclear Material License No. SNM-124.”<sup>83</sup> ECAN had an opportunity in this proceeding to challenge the Supplemental ER with respect to significant environmental changes since the previous environmental report submitted by NFS. Such an opportunity reasonably entails looking at the previous environmental documents prepared for the NFS facility.<sup>84</sup> With respect to the RAI Response, we find no error in the Board referring to an on-the-docket communication between the Staff and applicant related to the license amendment request that all participants had referenced before the Board.

## 2. ***PFAS Chemicals***

ECAN claimed that the Supplemental ER was deficient because it did not present an analysis of PFAS chemicals at the NFS site.<sup>85</sup> The Board found that ECAN’s factual claims were based on speculation and that ECAN did not identify any requirement in Part 51 to support its demand for an analysis of PFAS chemicals.<sup>86</sup> On appeal, ECAN claims that the Board ignored a statement from its expert that PFAS chemicals are “likely present in contaminated

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<sup>82</sup> 10 C.F.R. § 51.60(a).

<sup>83</sup> Supplemental ER at 1.

<sup>84</sup> Because 10 C.F.R. § 51.60 is directed at what applicants must submit, the focus is on an environmental report. Since the purpose of the environmental report is to facilitate the Staff’s preparation of its environmental assessment or environmental impact statement, we find it reasonable that a petitioner should examine the previous environmental assessment in this scenario, especially when it is referenced by all participants before the licensing board.

<sup>85</sup> Petition to Intervene at 26-28.

<sup>86</sup> LBP-23-2, 97 NRC at 51.

groundwater underlying NFS” and likely would follow the same transport pathways to the Nolichucky River as enriched uranium. But ECAN conceded that it provided no direct evidence that the groundwater at the Erwin site is contaminated by PFAS chemicals.<sup>87</sup> As we have previously stated, expert opinions that state a conclusion without explaining the basis for that conclusion do not fulfill the requirement in section 2.309(f)(1)(v) that the contention have adequate support.<sup>88</sup> Because ECAN’s expert, Dr. Ketterer, did not provide an explanation for his assertion that PFAS chemicals are likely present, ECAN has not identified an error of law or abuse of discretion.

Furthermore, the Board noted that ECAN does not relate the PFAS contamination to the U-Metal process license amendment request.<sup>89</sup> Therefore, the Board concluded that the PFAS aspect of the contention was outside the scope of the proceeding and failed to raise a genuine dispute with the application.<sup>90</sup> In its appeal, ECAN did not address these independent grounds for finding the contention inadmissible.

### 3. **Groundwater Plumes and Sinkholes**

ECAN raised concerns relating to historic groundwater plumes and the possibility of sinkholes.<sup>91</sup> The Board recognized that the Supplemental ER identified and analyzed groundwater plumes and that the License Renewal EA addressed sinkhole activity and its relevance to the Erwin site.<sup>92</sup> The Board found that ECAN did not discuss the license

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<sup>87</sup> *Id.* (citing Petition to Intervene at 28).

<sup>88</sup> *USEC*, CLI-6-10, 63 NRC at 472.

<sup>89</sup> LBP-23-2, 97 NRC at 51.

<sup>90</sup> *Id.*

<sup>91</sup> *Id.* (citing Petition to Intervene at 30-32).

<sup>92</sup> *Id.* at 51 & n.59. The Board also cited the Supplemental ER’s statement that “[t]he bedrock strata at the NFS Erwin Facility are consolidated, providing firm foundations for buildings that lie directly on the strata or that are supported by footings.” *Id.* at 51 n.59.

amendment request in connection with its claims regarding sinkholes and groundwater plumes and did not explain why NFS needed to provide further information on historical plumes or the possibility of sinkhole activity.<sup>93</sup>

On appeal, ECAN argues that NFS does not provide sufficient information in the Supplemental ER to support its claims that it is remediating the plumes of contaminants, because NFS does not quantify the level of remediation.<sup>94</sup> But because ECAN does not explain why more information is needed to support a discussion of environmental impacts flowing from this license amendment request, we find that ECAN has not pointed out any error in the Board's decision.

With respect to sinkholes, ECAN takes issue with the Board's references to the License Renewal EA, an NFS frequently asked questions document, and a "2019 NFS Supplemental ER" when the Supplemental ER does not mention sinkholes.<sup>95</sup> As discussed above, the License Renewal EA provides information relevant to this license amendment request; ECAN was both aware of this document and the other participants' references to this document but did not raise an objection until the appeal. While the Board did refer to a 2019 Supplemental ER in its decision, this seems to be a typographical error. The corresponding footnote refers to the 2021 Supplemental ER at issue in this proceeding and contains a relevant quotation from the 2021 Supplemental ER.<sup>96</sup> There are no other references to a 2019 Supplemental ER in the Board's decision. Finally, we need not address ECAN's argument that the Board should not have cited the frequently asked questions document because the Board primarily relied on the

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<sup>93</sup> *Id.* at 51-52.

<sup>94</sup> ECAN Appeal at 26.

<sup>95</sup> *Id.*

<sup>96</sup> LBP-23-2, 97 NRC at 51 & n.59.

License Renewal EA for its finding on sinkholes.<sup>97</sup> We find that ECAN has not identified any error of law or abuse of discretion in the Board's treatment of this aspect of Contention C.

#### 4. ***Air Emissions***

ECAN also argued in Contention C that air emissions would double if the license amendment request were granted.<sup>98</sup> As the Board noted, this claim was based on a misunderstanding of a statement in the Supplemental ER that air emissions from the U-Metal activity would be similar to those from current operations.<sup>99</sup> NFS clarified that it does not seek to increase the material possession limit in its license, so any new activities under the license amendment would be offset by a reduction in NFS's current activities.<sup>100</sup> On appeal, ECAN asserts that "[a] new additional industrial process will obviously increase air emissions."<sup>101</sup> But ECAN does not present any support for this position.<sup>102</sup> ECAN also argues that the Board did not consider revision 1 of the Supplemental ER, which was submitted to the NRC the day after LBP-23-2 was issued.<sup>103</sup> ECAN does not state how anything in the revised document points to a fault in the Board's decision. Moreover, a new or amended contention would be the appropriate method of raising a concern based on new information in the revised environmental

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<sup>97</sup> See *id.* In a footnote, the Board cited an NRC response on its frequently asked questions website about the NFS facility that discussed, with reference to the License Renewal EA, sinkholes in the Erwin area. *Id.* at 52 n.59.

<sup>98</sup> *Id.* at 52 (citing Petition to Intervene at 22).

<sup>99</sup> See *id.* at 43, 52 (citing Petition to Intervene at 20 (quoting RAI Response at 6)).

<sup>100</sup> *Id.* at 52 (citing NFS Answer to Petition to Intervene at 19 (quoting RAI Response at 6)).

<sup>101</sup> ECAN Appeal at 26-27.

<sup>102</sup> ECAN claims that "there is no indication that any of the current sources of air emissions will be discontinued or reduced" but does not engage with NFS's statement in the RAI Response that any new activities performed under the license amendment would be offset by a reduction in NFS's current activities. *Id.* at 27; RAI Response at 6.

<sup>103</sup> ECAN Appeal at 27.

report. ECAN has not identified an error of law or abuse of discretion by the Board regarding this portion of Contention C.

Because ECAN has not pointed to Board error for any aspect of this contention, we affirm the Board's decision with respect to Contention C.

**D. Contention D: Inadequacy of Fuel Cycle Facility Regulations**

In Contention D, ECAN argues that the NRC's fuel cycle facility regulations are insufficient to protect public health, safety, and security because they lack stringent quality assurance requirements.<sup>104</sup> The Board rejected Contention D as an improper challenge to a Commission regulation and outside the scope of the proceeding because ECAN did not account for the applicable quality assurance requirements in 10 C.F.R. § 74.59 and did not submit a petition for waiver of those requirements.<sup>105</sup>

On appeal, ECAN largely repeats the claims it made before the Board. ECAN contends that the license amendment would authorize a process that mirrors the one at the Y-12 facility.<sup>106</sup> ECAN further claims that the Y-12 industrial process line is subject to DOE's quality assurance requirements, which are more comprehensive than the NRC quality assurance regulations that would apply at the NFS facility.<sup>107</sup> As it argued before the Board, ECAN contends that the NFS

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<sup>104</sup> Petition to Intervene at 35.

<sup>105</sup> LBP-23-2, 97 NRC at 57. "Under 10 C.F.R. § 2.335, licensing boards may not entertain challenges to the validity of Commission regulations in individual licensing proceedings except in certain 'special circumstances' in which a waiver is requested and found to be appropriate. Section 2.335(b) and Commission caselaw detail the prima facie showing that an intervenor must make to establish the requisite 'special circumstances' so that a waiver may be granted. . . . Without a waiver determination by the Commission, a contention that challenges a rule is outside the scope of the proceeding and may not be given further consideration by a licensing board." *Id.* (citing *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005); *NextEra Energy Point Beach, LLC* (Point Beach Nuclear Plant, Units 1 and 2), CLI-22-5, 95 NRC 97, 101, 105 (2022)).

<sup>106</sup> ECAN Appeal at 28.

<sup>107</sup> *Id.*

facility should be subject to stricter DOE quality assurance regulations. In part, ECAN maintains that stricter standards should apply due to the asserted poor quality assurance corporate culture of NFS and the historical safety record at the Erwin site.<sup>108</sup>

Despite arguing that the applicable NRC regulations are not stringent enough, ECAN did not submit a waiver petition under 10 C.F.R. § 2.335. Nor has ECAN discussed the criterion in section 2.335 “that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted.”<sup>109</sup> ECAN has not explained the differences between the DOE and NRC quality assurance requirements or why any differences between the DOE and NRC requirements would render the NRC regulations insufficient. Because ECAN has not satisfied the rule waiver requirements of section 2.335, we do not need to address ECAN’s remaining arguments relating to NFS’s character and historical performance. ECAN has not pointed to any error in the Board’s decision; therefore, we affirm the Board’s decision on Contention D.

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<sup>108</sup> *Id.* at 29-30.

<sup>109</sup> 10 C.F.R. § 2.335(b).

### III. CONCLUSION

ECAN has not identified any error of law or abuse of discretion on the part of the Board in LBP-23-2. For the above reasons and for the reasons given by the Board, we *affirm* the Board's decision in LBP-23-2.

IT IS SO ORDERED.

For the Commission



Brooke P. Clark  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 5<sup>th</sup> day of October 2023.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
 )  
Nuclear Fuel Services, Inc. ) Docket No. 70-143-LA  
 )  
(License Amendment Application) )  
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **COMMISSION MEMORANDUM AND ORDER (CLI-23-03)** have been served upon the following persons by Electronic Information Exchange.

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Nuclear Fuel Services 70-143-LA  
**COMMISSION MEMORANDUM AND ORDER (CLI-23-03)**

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,  
this 5<sup>th</sup> day of October 2023.