

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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| In the Matter of |) | |
| |) | |
| FIRSTENERGY NUCLEAR OPERATING COMPANY |) | Docket No. 50-346-LR |
| |) | |
| (Davis-Besse Nuclear Power Station, Unit 1) |) | May 16, 2014 |
| |) | |

**FENOC'S ANSWER OPPOSING INTERVENORS' MOTION FOR ADMISSION OF
CONTENTION NO. 6**

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TABLE OF CONTENTS

| | | |
|------|--|----|
| I. | INTRODUCTION | 1 |
| II. | BACKGROUND | 3 |
| A. | Procedural Posture of the Davis-Besse License Renewal Proceeding..... | 3 |
| B. | Davis-Besse Shield Building | 8 |
| 1. | Laminar Cracking Identified in 2011/2012..... | 10 |
| 2. | Laminar Cracking Identified in 2013..... | 13 |
| 3. | Concrete Voiding Identified in February 2014..... | 15 |
| 4. | Rebar Cracking Identified in February 2014 | 16 |
| III. | ARGUMENT..... | 17 |
| A. | Intervenors Do Not Satisfy the Standards for Reconsideration of Issues Rejected as Part of Proposed Contention 5..... | 17 |
| 1. | Legal Standards Governing Reconsideration..... | 17 |
| 2. | Intervenors Have Not Satisfied the Standards Governing Reconsideration..... | 18 |
| B. | Contention 6 Does Not Satisfy the NRC’s Contention Admissibility Requirements in 10 C.F.R. § 2.309(f)(1)..... | 19 |
| 1. | Legal Standards Governing Admissibility..... | 19 |
| 2. | Contention 6 Raises Issues that Are Outside the Scope of this License Renewal Proceeding | 21 |
| 3. | Contention 6 Does Not Show that a Genuine Dispute Exists with the Applicant on a Material Issue of Law or Fact..... | 32 |
| 4. | Contention 6 Is Not Adequately Supported..... | 37 |
| C. | Contention 6 Does Not Satisfy the Relevant Timeliness Requirements..... | 41 |
| 1. | Legal Standards Governing Timeliness | 41 |
| 2. | The Motion Is Untimely..... | 44 |
| 3. | The Untimely Motion Does Not Satisfy the Late-Filed Requirements | 47 |
| IV. | INTERVENORS’ BASELESS ACCUSATIONS SHOULD BE STRICKEN | 50 |
| V. | CONCLUSION..... | 52 |

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I. INTRODUCTION

Beyond Nuclear, Citizens Environment Alliance of Southwestern Ontario, Don’t Waste Michigan, and the Green Party of Ohio (“Intervenors”) filed a Motion,¹ dated April 21, 2014, with the Atomic Safety and Licensing Board (“Board”) in the Davis-Besse Nuclear Power Station, Unit 1 (“Davis-Besse”) license renewal proceeding to admit newly-proposed Contention 6 regarding “Shield Building Concrete Void, Cracking and Broken Rebar Problems.” FirstEnergy Nuclear Operating Company (“FENOC”) files this Answer in opposition to admission of proposed Contention 6, pursuant to 10 C.F.R. § 2.309(i)(1) and the Board’s June 15, 2011 Initial Scheduling Order (“ISO”).²

As the Board is well aware, Contention 6 raises arguments that were the subject of Intervenors’ earlier proposed Contention 5 and five supplements. Both proposed contentions raise issues related to subsurface laminar cracking of the concrete in the Davis-Besse Shield Building and make wide-reaching environmental and safety arguments about those issues.

¹ Motion for Admission of Contention No. 6 on Shield Building Concrete Void, Cracking and Broken Rebar Problems (dated April 21, 2014) (“Motion”).

² Per 10 C.F.R. § 2.309(i)(1), an applicant may file an answer to a proffered contention within 25 days of the service of the contention. Further, the ISO in this proceeding reiterates that FENOC may file an answer to a motion for leave to file a new contention and a proposed contention within 25 days after service of those pleadings. Initial Scheduling Order, at 13 (June 15, 2011) (unpublished).

Contention 6 is essentially yet another supplement to the earlier—and now rejected—Contention 5 with Intervenors explicitly stating that it “incorporate[s]” all of the Contention 5 filings.³

Just as the Board rejected Contention 5 and its supplements, the Board should reject Contention 6. Intervenors’ most recent attempt still lacks the necessary bases and specificity to support contention admissibility—much less reconsideration of Contention 5. Three primary reasons support rejection of Contention 6:

- First, Intervenors attempt to re-litigate issues set forth in Contention 5, which was rejected by the Board in LBP-12-27 in December 2012. As demonstrated in Section III.A below, Intervenors fail even to acknowledge, much less satisfy, the standards for reconsideration of the Board’s ruling on those issues.
- Second, as demonstrated in Section III.B below, Contention 6 fundamentally fails to satisfy the contention admissibility requirements specified in 10 C.F.R. § 2.309(f)(1) for new contentions. Contention 6 challenges issues outside the scope of license renewal, fails to challenge the Davis-Besse License Renewal Application (“LRA”) or the Draft Supplemental Environmental Impact Statement (“DSEIS”), lacks adequate factual support, and does not raise issues material to the findings the Nuclear Regulatory Commission (“NRC”) must make to issue the requested renewed license. Perhaps one of the most egregious shortcomings is Intervenors’ attempt to challenge FENOC’s purported “management failures” and Quality Assurance (“QA”) “failings.”⁴ As this Board has observed and reminded Intervenors before, the Commission has repeatedly and unambiguously held that these issues are outside the scope of license renewal.⁵

³ Motion at 5.

⁴ *See id.* at 20.

⁵ *See FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), LBP-12-27, 76 NRC 583, 611 n.171 (2012) (citing Northern States Power Co. (Prairie Island Nuclear Generating Plants, Units 1 &*

- Third, as demonstrated in Section III.C below, Contention 6 is untimely. Contrary to the ISO and relevant NRC regulations, Intervenors filed this Motion more than 60 days after the public availability of the information upon which it is based. The information on additional laminar cracking, for example, has been available for many months. As fully explained below, subsequent documents or events do not present materially-different information. Moreover, Intervenors also have failed to demonstrate good cause justifying their late filing, contrary to 10 C.F.R. § 2.309(c).

Finally, as demonstrated in Section IV below, in addition to these three fatal flaws, Intervenors once again undermine credibility and decorum of the NRC's adjudicatory process by making repeated inappropriate, baseless and derisive statements against both FENOC and the NRC Staff. As the Board has done in the past, it should reject these baseless statements that undermine the honor, dignity, and decorum required by the standards of practice for NRC adjudicatory proceedings.⁶

II. BACKGROUND

A. Procedural Posture of the Davis-Besse License Renewal Proceeding

Davis-Besse is located in Ohio, and generates 908 MWe of baseload electrical power.⁷ The current operating license for Davis-Besse expires at midnight on April 22, 2017.⁸ On August 27, 2010, FENOC submitted its LRA,⁹ requesting that the NRC renew the Davis-Besse

2), CLI-10-27, 72 NRC 481, 491 (2010) (stating that "broad-based issues akin to safety culture -- such as operational history, quality assurance, quality control, management competence, and human factors -- [are] beyond the bounds of a license renewal proceeding").

⁶ See Order (Granting in Part and Denying in Part Motion to Strike), at 4-5 (Oct. 11, 2012) (unpublished).

⁷ Applicant's Environmental Report, Operating License Renewal Stage, Davis-Besse Nuclear Power Station, at 3.1-1, 7.2-1 (Aug. 2010) ("ER"), available at ADAMS Accession No. ML102450568.

⁸ *Id.* at 1.1-1, available at ADAMS Accession No. ML102450563.

⁹ Notice of Acceptance for Docketing of the Application, Notice of Opportunity for Hearing for Facility Operating License No. NPF-003 for an Additional 20-Year Period; FirstEnergy Nuclear Operating Company, Davis-Besse Nuclear Power Station, 75 Fed. Reg. 65,528, 65,529 (Oct. 25, 2010) ("Hearing Notice").

operating license for an additional 20 years (*i.e.*, until midnight on April 22, 2037).¹⁰ The NRC accepted the LRA for docketing, and published a Hearing Notice in the *Federal Register* on October 25, 2010.¹¹

On December 27, 2010, Intervenors petitioned to intervene in this proceeding, proffering four contentions.¹² On April 26, 2011, the Board admitted Contention 1, a reformulated and consolidated version of Contentions 1, 2, and 3 regarding renewable energy alternatives, and Contention 4, a narrowed version of a contention concerning FENOC's severe accident mitigation alternatives ("SAMA") analysis.¹³ FENOC appealed the Board's ruling admitting the two contentions and, on March 27, 2012, the Commission reversed the Board's admission of Contention 1, and reversed, in part, the Board's admission of Contention 4.¹⁴ FENOC later moved for summary disposition as to the remaining part of Contention 4.¹⁵

On January 10, 2012, Intervenors moved to admit Contention 5 concerning laminar concrete cracking of the Davis-Besse Shield Building.¹⁶ Subsequently, Intervenors submitted five motions to amend and/or supplement the proposed cracking contention over the course of seven months.

On November 5 and 6, 2012, the Board held oral argument on FENOC's motion for summary disposition of Contention 4, the admissibility of Contention 5, and the five motions to

¹⁰ ER at 1.1-1.

¹¹ See Hearing Notice, 75 Fed. Reg. at 65,528-529.

¹² See *Beyond Nuclear*, Citizens Environment Alliance of Southwestern Ontario, Don't Waste Michigan, and the Green Party of Ohio Request for Public Hearing and Petition for Leave to Intervene (Dec. 27, 2010).

¹³ See *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-13, 73 NRC 534, 588-89 (2011).

¹⁴ See generally *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-8, 75 NRC 393 (2012).

¹⁵ See *FirstEnergy's Motion for Summary Disposition of Contention 4 (SAMA Analysis Source Terms)* (July 26, 2012).

¹⁶ See *Motion for Admission of Contention No. 5 on Shield Building Cracking* (Jan. 10, 2012).

supplement or amend. On December 28, 2012, the Board granted FENOC's motion for summary disposition of Contention 4,¹⁷ and denied Intervenor's motion to admit Contention 5.¹⁸ With regard to Contention 5, the Board found that none of Intervenor's five supplements contained new or material information that was different from what was previously available.¹⁹ As to the original contention, the Board found that, as originally proposed, it was unsupported, noting that Intervenor merely "articulated a vague and generic concern" about Shield Building cracking, but failed "to articulate[] a dispute with FENOC's renewal application."²⁰ The reformulated contention proffered by the Staff, which alleged that FENOC failed to describe how the Structures Aging Management Program ("AMP") would account for Shield Building cracks, was mooted by FENOC's submission of a Shield Building Monitoring AMP.²¹

In the interim, Intervenor also filed with the Board a motion to admit a new environmental contention that challenges the alleged failure of FENOC's Environmental Report ("ER") to address the environmental impacts that may occur if a spent fuel repository does not become available.²² The proposed contention is based on the U.S. Court of Appeals for the District of Columbia Circuit's decision in *New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012),²³

¹⁷ *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-12-26, 76 NRC 559 (2012).

¹⁸ *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-12-27, 76 NRC 583 (2012).

¹⁹ *Id.* at 600-06.

²⁰ *Id.* at 608.

²¹ *Id.* at 609-10.

²² See Intervenor's Motion for Leave to File a New Contention Concerning Temporary Storage and Ultimate Disposal of Nuclear Waste at Davis-Besse Nuclear Power Station (July 9, 2012).

²³ See *id.*

which invalidated and remanded the NRC's Waste Confidence Decision Update²⁴ and related final rule.²⁵

On August 7, 2012, the Commission issued CLI-12-16, in which it directed affected licensing boards to hold numerous pending waste confidence contentions in abeyance pending further Commission order.²⁶ Consequently, in an August 8, 2012 Order, the Board held any participant or Board activity concerning Intervenors' proposed waste confidence contention in abeyance pending further Commission direction.²⁷

On September 23, 2013, FENOC filed with the Board a petition seeking certification of a waste confidence-related question to the Commission.²⁸ Specifically, FENOC sought clarification as to whether the Commission intended to authorize the Board to lift the abeyance on Intervenors' proposed waste confidence issues, given the ongoing rulemaking activity.²⁹ The Board denied FENOC's certification petition on November 18, 2013.³⁰ Thus, the Commission-ordered abeyance remains in place.³¹

²⁴ Waste Confidence Decision Update, 75 Fed. Reg. 81,037 (Dec. 23, 2010).

²⁵ Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation, 75 Fed. Reg. 81,032 (Dec. 23, 2010).

²⁶ See *Calvert Cliffs Nuclear Project, LLC, et al.* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 NRC 63, 68-69 (2012).

²⁷ See Licensing Board Order (Suspending Procedural Date Related to Proposed Waste Confidence Decision) at 1 (Aug. 8, 2012) (unpublished).

²⁸ See FENOC's Petition for Certification of Waste Confidence-Related Question to the Commission Pursuant to 10 C.F.R. § 2.323(f)(2) (Sept. 23, 2013).

²⁹ *Id.* at 8-9 (citing *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-01-27, 54 NRC 385, 390-91 (2001) (“[T]he Commission historically has been reluctant to suspend pending adjudications to await developments in other . . . proceedings.”)).

³⁰ See Order (Denying FENOC's Petition for Certification of Waste Confidence-Related Question to the Commission) (Nov. 18, 2013) (unpublished).

³¹ In the *Sequoyah* license renewal proceeding, the Commission stated that the direction it provided in *Calvert Cliffs* (CLI-12-16) remains in place, and that the Commission will provide further direction regarding pending waste confidence contentions concurrent with issuance of the NRC's final waste confidence rule in Fall 2014. See *Tenn. Valley Auth.* (Sequoyah Nuclear Plant, Units 1 & 2), CLI-14-03, 79 NRC ___, slip op. at 8-9 (Feb. 12, 2014).

The NRC Staff issued the Davis-Besse license renewal Safety Evaluation Report (“SER”) in September 2013.³² Subsequently, the Staff issued the Davis-Besse DSEIS for license renewal in February 2014.³³

On February 27, 2014, Intervenors and participants in various other adjudicatory proceedings filed a suspension petition pursuant to 10 C.F.R. § 2.802(d), seeking to suspend certain final NRC licensing decisions until the NRC Staff addresses the allegedly “new and significant” information identified in a February 18, 2014 rulemaking petition concerning the environmental impacts of accidents involving fires in “high-density” spent fuel pools and related mitigation measures.³⁴ FENOC and the NRC Staff filed responses opposing the suspension petition. The Commission has not yet ruled on the petition.

Finally, Intervenors filed Contention 6. Although they dated it April 21, 2014, Intervenors filed it on April 22, 2014.³⁵ Contention 6 focuses on three events related to the Davis-Besse Shield Building: (1) laminar cracking discoveries in August/September 2013; (2) concrete voiding discovered in February 2014; and (3) cracking in rebar during the February

³² Safety Evaluation Report Related to the License Renewal of Davis-Besse Nuclear Power Station (Sept. 2013), *available at* ADAMS Accession No. ML13248A267.

³³ NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 52, Regarding Davis-Besse Nuclear Power Station, Draft Report for Comment (Feb. 2014), *available at* ADAMS Accession No. ML14050A290.

³⁴ *See* Petition to Suspend Reactor Licensing Decisions and Reactor Re-Licensing Decisions Pending Completion of Rulemaking Proceeding Regarding Environmental Impacts of High-Density Pool Storage of Spent Fuel and Mitigation Measures (Feb. 27, 2014).

³⁵ To the extent Intervenors rely upon April 21, 2014 as their deadline for filing proposed Contention 6, they are late. The Board already has chastened Intervenors for filing after a deadline without seeking leave from the Board to accept the document out of time. *See Davis-Besse*, LBP-11-13, 73 NRC at 544 (“If a petitioner encounters problems with a particular document or with the agency’s E-Filing system so that the document cannot be filed before the deadline, it is incumbent upon that petitioner to explain the circumstances surrounding the problem as soon as possible to the Board and the parties, by promptly filing a motion seeking leave from the Board to accept the document out of time.”); *id.* at 545 (“In the future Joint Petitioners are strongly advised to prepare their pleadings well in advance of any deadlines, and if any portion of a filing is untimely tendered, it must be accompanied by a motion pursuant to 10 C.F.R. §§ 2.309(c)(1) and 2.323.”); *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-34, 74 NRC 685, 693-94 (2011) (rejecting a late motion and stating that “this Board has previously cautioned Intervenors ‘to prepare their pleadings well in advance of any deadlines’”).

2014 hydro-blasting to create a temporary access opening to support replacement of the steam generators. According to Intervenors, these three events:

represent ongoing aging problems compounded and intertwined with management failures; they are unmentioned and undocumented within the DSEIS for Davis-Besse; they may be interrelated or synergistic; they each are preceded at Davis-Besse; and they must be more intensely subjected to Aging Management Plans (AMPs) than has heretofore happened.³⁶

As a result, Intervenors claim that:

The Draft and Final SEIS documents must be reconfigured in recognition of the lax management and QA failings, and the failings of the physical components of the shield building so that the true nature of these historic problems can be revealed and analyzed in the [National Environmental Policy Act (NEPA)] documents and in the severe accident mitigation alternatives analysis (SAMA). Relevant AMPs must be redrawn to anticipate and account for the implications or insufficient and irregular aging management of the shield building. Also, the Safety Evaluation review and overall SE Report must be rewritten to articulate modified AMPs and QA procedures which will reasonably assure that the plant can operate safely between now and April 22, 2017, and during the extended operating license period from 2017 until 2037.³⁷

B. Davis-Besse Shield Building

As the issues raised by Intervenors in Contention 6 primarily relate to the Davis-Besse Shield Building, it is important to understand its intended function and treatment for purposes of license renewal.³⁸ By way of background, the Shield Building is a reinforced concrete structure with approximately 2 1/2-foot thick walls that surrounds the steel containment vessel. There is an approximately 4 1/2-foot annulus (*i.e.*, air space) between the Shield Building walls and the

³⁶ Motion at 26.

³⁷ *Id.*

³⁸ Additional background information related to the Shield Building laminar cracking issues related to proposed Contention 5 are discussed in detail in documents provided by FENOC to the Board. *See, e.g.*, Letter from T. Matthews, FENOC Counsel, to Board, Notification of Filing Related to Proposed Shield Building Cracking Contention (May 17, 2012) (providing Board with copy of Root Cause Analysis Report, Concrete Crack Within Shield Building Temporary Access Opening, Revision 1 (May 8, 2012) (“Revised Root Cause Evaluation”).

containment vessel. The outer surface of the Shield Building includes “flute shoulders,” which are non-structural, architectural elements on the façade of the Shield Building.³⁹ As stated in the LRA:

The Shield Building is a concrete structure surrounding the Containment Vessel. It is designed to provide biological shielding during normal operation and from hypothetical accident conditions. The building provides a means for collection and filtration of fission product leakage from the Containment Vessel following a hypothetical accident through the Emergency Ventilation System, an engineered safety feature designed for that purpose. In addition, the building provides environmental protection for the Containment Vessel from adverse atmospheric conditions and external missiles.⁴⁰

As further noted in the LRA, the various components that makeup the Shield Building underwent aging management review and the Structures Monitoring Program was identified as necessary to manage the applicable aging effects.⁴¹ As discussed in more detail below, FENOC discovered laminar cracking in the Shield Building in 2011, that ultimately resulted in FENOC creating a new plant-specific AMP, the Shield Building Monitoring Program, in order to periodically inspect the structure to confirm that in the future there are no changes in the nature of the identified laminar cracks. FENOC’s actions were consistent with the principle that aging management is a continuous, evolving process, which necessarily involves incorporating and addressing new operating experience and inspection techniques.⁴²

³⁹ See Revised Root Cause Evaluation at 15.

⁴⁰ License Renewal Application, Davis-Besse Nuclear Power Station at 2.4-3 (Aug. 2010) (“LRA”), available at ADAMS Accession No. ML102450572.

⁴¹ See LRA, at 3.5-71 to -75.

⁴² See NUREG-1800, Rev. 2, Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants at A.1-7 (Dec. 2010) (“An applicant should commit to a future review of plant-specific and industry operating experience to confirm the effectiveness of its aging management programs or indicate a need to develop new aging management programs.”); *id.* at A.1-8 (“A past failure would not necessarily invalidate an AMP because the feedback from operating experience should have resulted in appropriate program enhancements or new programs.”).

Ultimately, the LRA and its AMPs are designed to provide reasonable assurance that the effects of aging will be managed during the period of extended operation.⁴³ Longstanding precedent makes clear that the reasonable assurance standard does not require an applicant to meet an “absolute” or “beyond a reasonable doubt” standard.⁴⁴ Nor does it require perfection (*i.e.*, the prevention of aging).⁴⁵

With this background in mind, FENOC provides the following information about the Shield Building events that are the subject of Contention 6.

1. Laminar Cracking Identified in 2011/2012

On October 1, 2011, Davis-Besse shut down for a scheduled outage to complete maintenance activities.⁴⁶ During hydro-demolition activities on October 10, 2011, workers identified indications of laminar cracking below the exterior surface of the Shield Building.⁴⁷ Upon the initial identification of the cracking, FENOC promptly notified the NRC Resident Inspector, placed the issue into the Corrective Action Program, and mobilized a team of experts to investigate.⁴⁸

FENOC notified the Board and Parties to this proceeding on February 29, 2012 that it had submitted the Root Cause Evaluation for Shield Building laminar cracking to the NRC on

⁴³ 10 C.F.R. § 54.29(a).

⁴⁴ *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-07, 69 NRC 235, 262 n.142 (2009) (citation omitted).

⁴⁵ *See NextEra Energy Seabrook LLC* (Seabrook Station, Unit 1), CLI-12-05, 75 NRC 301, 314-15 (2012).

⁴⁶ Additional details on the background of the Shield Building laminar cracking are provided in FENOC’s February 6, 2012 Answer opposing the proposed Contention 5. *See* FENOC’s Answer Opposing Intervenor’s Motion for Admission of Contention No. 5 on Shield Building Cracking at 4-7 (Feb. 6, 2012) (“FENOC’s Original Contention Answer”).

⁴⁷ *See* Letter from R. Seeholzer, FirstEnergy, to the Investment Community at 1 (Oct. 31, 2011) (provided as Attachment 1 to FENOC’s Original Contention Answer); *see also* FENOC Presentation Slides, NRC Public Meeting, at 19 (Jan. 5, 2012) (“January FENOC Slides”) (provided as Attachment 2 to FENOC’s Original Contention Answer).

⁴⁸ January FENOC Slides at 20.

February 27, 2012.⁴⁹ The Root Cause Evaluation concluded that the direct cause of the laminar cracking “is the integrated affect of moisture content, wind speed, temperature, and duration from the blizzard of 1978,” and the root cause was a “design specification for construction of the Shield Building (C-038) that did not specify application of an exterior sealant from moisture.”⁵⁰

On April 5, 2012, FENOC notified the Board⁵¹ of a letter it had submitted to the NRC Staff to: (1) respond to RAI B.2.39-13, which the NRC Staff issued to FENOC on December 27, 2011, related to the Shield Building laminar cracking;⁵² and (2) revise the Davis-Besse LRA to include, among other things, a new Shield Building AMP in LRA Section B.2.43.⁵³ The April 2012 RAI Response explains that the Shield Building AMP “is provided to periodically inspect the structure to confirm that there are no changes in the nature of the identified laminar cracks.”⁵⁴

The Shield Building AMP is a plant-specific monitoring program for Davis-Besse that supplements the existing Structures Monitoring AMP to “ensure that the intended functions of the Shield Building are maintained during the period of extended operation.”⁵⁵ The Shield Building AMP consists of inspections of the Shield Building concrete and reinforcing steel to

⁴⁹ See Submittal of Shield Building Root Cause Evaluation (Feb 27, 2012) (submitted as an enclosure to Letter from T. Matthews, FENOC Counsel, to Board, Notification of Filing Related to Proposed Shield Building Cracking Contention (Feb. 29, 2012)).

⁵⁰ *Id.* at 59.

⁵¹ Letter from T. Matthews, FENOC Counsel, to the Board, Notification of Filing Related to Proposed Shield Building Cracking Contention (Apr. 5, 2012) (“Board Notification for April 2012 RAI Response”).

⁵² See Letter from D. Imlay, FENOC, to NRC, Reply to Request for Additional Information for the Review of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application (TAC No. ME4640) and License Renewal Application Amendment No. 25, Attachment L-12-028 (Apr. 5, 2012) (“April 2012 RAI Response”) (provided as an enclosure to the Board Notification for April 2012 RAI Response).

⁵³ Amendment No. 25 to the DBNPS License Renewal Application, at 10-15 (Apr. 5, 2012) (“Shield Building AMP”) (provided as an enclosure to the April 2012 RAI Response). FENOC revised the Shield Building AMP on August 16, 2012 consistent with certain RAI responses regarding the Shield Building laminar cracking and license renewal. See Letter from D. Imlay, FENOC, to NRC, Reply to Request for Additional Information for the Review of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application (TAC No. ME4640) Attachment L-12-284, Enclosure A at 5-12 (Aug. 16, 2012) (provided as an attachment to FENOC’s Answer Opposing Intervenors’ Third and Fourth Motions to Amend and/or Supplement Proposed Contention No. 5 (Shield Building Cracking)).

⁵⁴ April 2012 RAI Response at 5.

⁵⁵ Shield Building AMP at 10.

monitor the newly-identified laminar cracking, change of material properties, and loss of material.⁵⁶ The Shield Building AMP also requires inspection of the Shield Building exterior concrete coatings for evidence of loss of effectiveness.⁵⁷

On May 10, 2012, the NRC Staff notified the Board and Parties to this proceeding that it had issued an Inspection Report, dated May 7, 2012, that addressed inspection activities conducted subsequent to FENOC's identification of the Shield Building laminar cracks.⁵⁸ The NRC Staff did not identify any findings or violations of significance.⁵⁹ In fact, it found that FENOC had "provided reasonable assurance that the [Shield Building] had sufficient structural capacity to perform its design functions if subjected to a postulated design basis earthquake, tornado wind, or tornado generated missiles."⁶⁰

Following additional inspections and analysis, on May 17, 2012, FENOC notified the Board and Parties to this proceeding that it had submitted Revision 1 of the Root Cause Evaluation to the NRC on May 16, 2012.⁶¹ The Revised Root Cause Evaluation includes additional clarifying information in response to observations made during an NRC Staff inspection regarding the evaluation.⁶² The revision did not invalidate the methodology, assessment and analysis, or conclusions of the evaluation.⁶³

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ Davis-Besse Nuclear Power Station Reactor Vessel Head Replacement and Shield Building Cracking Inspection Report 05000346/2012007 (DRS) (May 7, 2012) (provided as an enclosure to Letter from B. Harris, Staff Counsel, to Board (May 10, 2012)).

⁵⁹ *Id.*, Enclosure, at 1.

⁶⁰ *Id.*, Enclosure, at 9.

⁶¹ *See* Revised Root Cause Evaluation (submitted as an enclosure to Letter from T. Matthews, FENOC Counsel, to Board, Notification of Filing Related to Proposed Shield Building Cracking Contention (May 17, 2012)).

⁶² *See id.* at 5-7.

⁶³ *See id.* at 5.

On June 21, 2012, the NRC Staff issued another Inspection Report describing its review of FENOC's Root Cause Evaluation and the associated corrective actions.⁶⁴ A team of NRC inspectors conducted the review over the course of a five-month period.⁶⁵ Regarding causes, the June 2012 NRC Inspection Report states that FENOC "established a sufficient basis for the causes of the shield building laminar cracking related to: the environmental factors associated with the 1978 blizzard, the lack of an exterior moisture barrier, and the structural design elements of the shield building."⁶⁶

Finally, on November 20, 2012, FENOC notified the Board⁶⁷ of a letter it had submitted to the NRC Staff (1) responding to follow-up RAI B.2.43-1, which the NRC Staff issued to FENOC on October 26, 2012, related to the Shield Building laminar cracking;⁶⁸ and (2) revising the Davis-Besse LRA to include a Revised Shield Building AMP in LRA Section B.2.43.⁶⁹ The revisions included additional requirements regarding re-applying exterior concrete coatings, coatings acceptance criteria, and visual inspection locations and frequency.⁷⁰

2. Laminar Cracking Identified in 2013

Following the evaluations of the laminar cracking identified in 2011, FENOC commenced a long-term monitoring program that included periodic inspections with core bore

⁶⁴ Inspection Report 05000346/2012009, Davis-Besse Nuclear Power Station – Inspection to Evaluate the Root Cause Evaluation and Corrective Actions for Cracking in the Reinforced Concrete Shield Building of the Containment System (June 21, 2012) (provided as Attachment 1 to FENOC's Answer Opposing Intervenor's Motion to Amend and Supplement Proposed Contention No. 5 (Shield Building Cracking)).

⁶⁵ *Id.*, Enclosure, at 1.

⁶⁶ *Id.* at 1.

⁶⁷ Letter from T. Matthews, FENOC Counsel, to the Board, Notification of Filing Related to Shield Building Laminar Cracking (Nov. 20, 2012) ("Board Notification for November 2012 RAI Response").

⁶⁸ See Letter from D. Imlay, FENOC, to NRC, Reply to Request for Additional Information for the Review of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application (TAC No. ME4640) and License Renewal Application Amendment No. 36, Attachment L-12-418 (Nov. 20, 2012) ("November 2012 RAI Response") (provided as an enclosure to the Board Notification for November 2012 RAI Response).

⁶⁹ Amendment No. 36 to the DBNPS License Renewal Application, at 4-11 (Apr. 5, 2012) (provided as an enclosure to the November 2012 RAI Response).

⁷⁰ See *id.*

and crack examinations.⁷¹ The long-term monitoring program is designed to establish the baseline condition of the Shield Building concrete by performing periodic inspections of core bores to identify changes in the characteristics of the concrete. Inspections of the inside surfaces of the core bore samples are evaluated to determine whether cracks have propagated into the adjacent areas.⁷² Also, the width of the existing crack was inspected to establish if there was a discernible change in the thickness of the crack.⁷³ Prior to August/September 2013, the inspections did not indicate a change in the concrete condition within the core monitored core bores.⁷⁴

In 2013, FENOC commenced inspections of the core bores using a newer high-definition camera technology (boroscope) that provided greater clarity and mobility than previously-available equipment.⁷⁵ During these enhanced visual examinations in August/September 2013, FENOC identified cracks that had not been previously identified during visual examinations.⁷⁶ FENOC determined that some were pre-existing cracks, first identified during the visual inspections in 2013 due to the increased clarity of the boroscope.⁷⁷ Consistent with the nature of aging management considerations, FENOC continues to investigate the remaining cracks to determine their cause and any impact on the AMPs related to the Shield Building.⁷⁸

⁷¹ See Davis-Besse Nuclear Power Station NRC Integrated Inspection Report 05000346/20130004, encl. at 26-26-27 (Nov. 1, 2013) (“November 2013 Inspection Report”), available at ADAMS Accession No. ML13308A283. Excerpts from the November 2013 Inspection Report are provided as FENOC Attachment 2 to this Answer.

⁷² *Id.*

⁷³ *Id.*

⁷⁴ *See id.*

⁷⁵ *See* Motion, Exhibit 6 at 1.

⁷⁶ *Id.*

⁷⁷ November 2013 Inspection Report at 28.

⁷⁸ *See id.*

3. Concrete Voiding Identified in February 2014

Davis-Besse shut down, as scheduled, on February 1, 2014 to replace the plant's two steam generators.⁷⁹ As part of the outage, FENOC created a temporary access opening through the concrete Shield Building. On February 13, 2014, FENOC identified an incomplete concrete fill, or "void," located along the top of the access opening that occurred during the November 2011 restoration of the previous access opening through the Shield Building.⁸⁰ The void was approximately 25 feet in length, ranged from 6 to 12 inches in height at the inside surface of the Shield Building, and ranged from 2 to 24 inches in depth.⁸¹ The location of the maximum height of the void did not correspond with the location of the maximum depth. The void was not discovered by visual inspections until February 2014 as it had been covered by formwork intentionally left in-place following the 2011 concrete fill, to act as a blast shield during the anticipated 2014 hydro-demolition process.⁸²

FENOC completed an Apparent Cause Evaluation on April 14, 2014, for the concrete void.⁸³ The apparent cause of the void was the lack of flowable concrete.⁸⁴ In addition, the apparent cause of not having earlier identified the full extent of the void (notwithstanding identification of voiding on the exterior of the Shield Building) was weakness in the organization's questioning attitude and decisionmaking.⁸⁵ In addition to successfully repairing the void on March 14, 2014, FENOC completed other corrective actions, including verification of proper concrete placement for the 2014 Shield Building access opening, removal of all

⁷⁹ These facts are supported by the affidavit of Jon Hook ("Hook Affidavit"), who is the Manager of Design Engineering at Davis-Besse. The Hook Affidavit is provided as FENOC Attachment 1 to this Answer.

⁸⁰ See Motion, Exhibit 1 at 1; Hook Affidavit ¶ 5.

⁸¹ Motion, Exhibit 2 at 1; Hook Affidavit ¶ 5.

⁸² Hook Affidavit ¶ 5.

⁸³ *Id.* ¶ 6.

⁸⁴ *Id.*

⁸⁵ *Id.*

associated concrete formwork, and performance of a final walk down of the Shield Building access opening area.⁸⁶ FENOC also determined that reasonable assurance exists to conclude that the Shield Building was capable of performing its safety functions with the identified concrete void area present.⁸⁷

4. Rebar Cracking Identified in February 2014

During the hydro-demolition process in early February 2014 to create a temporary access opening in the Shield Building for the replacement steam generators, reinforcement steel bar (rebar) unexpectedly broke.⁸⁸ The majority of the broken rebar were located in the proximity of mechanical couplers embedded within the concrete, with a few others broken near the concrete and rebar interface at the top of the temporary access opening.⁸⁹

FENOC also performed a full Apparent Cause Evaluation for the rebar cracking.⁹⁰ FENOC relied upon metallurgical examination to determine the failure mechanism and nondestructive examination to determine the extent of the damage.⁹¹ The analysis concluded that the apparent cause of the broken rebar was the cumulative interaction of changes to the construction environment (*e.g.*, changes in rebar restraint, decrease in temperature) and the method of hydro-demolition that was used to create the temporary access opening in the Shield Building.⁹² Accordingly, the analysis showed that the rebar was damaged in February 2014 during the hydro-demolition process and not before.⁹³

⁸⁶ *Id.* ¶ 7.

⁸⁷ *Id.*

⁸⁸ Motion, Exhibit 2 at 3; Hook Affidavit ¶ 8.

⁸⁹ Hook Affidavit ¶ 8.

⁹⁰ *Id.* ¶ 9.

⁹¹ *Id.*

⁹² *Id.*

⁹³ *Id.*

III. ARGUMENT

As demonstrated below, Contention 6 suffers from three flaws, each fatal to admission. First, Intervenors do not satisfy the standards for reconsideration of the issues rejected as part of Contention 5 that they seek to re-litigate here. Second, Contention 6 fundamentally fails to satisfy the contention admissibility requirements specified in 10 C.F.R. § 2.309(f)(1). Third, Contention 6 is untimely. For these reasons, Contention 6 should be rejected in its entirety.

A. Intervenors Do Not Satisfy the Standards for Reconsideration of Issues Rejected as Part of Proposed Contention 5

Intervenors devote a number of pages of their Motion in attempting to re-litigate their arguments about the laminar cracking that were raised as part of proposed Contention 5 and were decided by this Board over a year ago, incorporating Contention 5-related filings into its Motion and arguing that the Board's conclusion in LBP-12-27 rejecting Contention 5 was incorrect because Intervenors "did not engage in mere speculation."⁹⁴ Intervenors' efforts amount to nothing more than an improper and unsupported attempt to seek reconsideration of the Board's decision regarding Contention 5. Their attempt fails for the reasons set forth below.

1. **Legal Standards Governing Reconsideration**

The Commission sets a "high bar" for parties seeking reconsideration of Board orders.⁹⁵ The NRC regulations state that motions for reconsideration must demonstrate "compelling circumstances, such as the existence of a clear and material error in a decision, which could not have reasonably been anticipated, that renders the decision invalid."⁹⁶ Commission case law

⁹⁴ See Motion at 5, 8-16.

⁹⁵ *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-04-36, 60 NRC 631, 636 (2004).

⁹⁶ 10 C.F.R. § 2.323(e).

generally disfavors motions for reconsideration premised on new evidence rather than errors in the existing record.⁹⁷

2. Intervenor Have Not Satisfied the Standards Governing Reconsideration

Intervenors do not acknowledge or address—much less meet—any of the legal standards governing reconsideration. Most importantly, they have failed to demonstrate how the more recent Shield Building events present compelling circumstances, such as a clear and material error.⁹⁸ Intervenor instead repeat their earlier claims about substandard rebar, micro-cracking, radial cracking, AMP modifications, future “cut-throughs,” and the inner rebar mat, and claim that they were “prescient” in their Contention 5 filings.⁹⁹ Intervenor have not demonstrated, however, that the Board misapplied the contention admissibility requirements that led to rejection of Contention 5.

For example, the Board concluded that Contention 5 included arguments that were outside the scope of license renewal and raised issues that are unrelated to aging management.¹⁰⁰ Intervenor’s arguments in Contention 6 do not change those conclusions. Therefore, to the extent that Intervenor seek reconsideration of the Board’s rejection of Contention 5 issues through the introduction of Contention 6, they have not satisfied the governing legal standards.¹⁰¹

⁹⁷ See, e.g., *Consumers Energy Co., et al.* (Palisades Nuclear Power Plant), CLI-07-22, 65 NRC 525, 527 (2007) (citing *Pac. Gas & Elec. Co.* (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-06-27, 64 NRC 399, 402 (2006)); *Tenn. Valley Auth.* (Hartsville Nuclear Plant Units 1A, 2A, 1B & 2B), ALAB-418, 6 NRC 1, 2 (1977); *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), LBP-04-22, 60 NRC 379, 380-81, *aff’d*, CLI-04-36, 60 NRC 631, 641, 645 (2004).

⁹⁸ The Commission has rejected reconsideration requests for lack of basis where new arguments do not render the earlier decision invalid. See, e.g., *Entergy Nuclear Generating Co. & Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-10-15, 71 NRC 479, 481, 482 (2010) (denying motion for reconsideration of the Commission’s affirmance of a board ruling on summary disposition because the issues raised in petitioner’s motion for reconsideration were outside the scope of the originally admitted SAMA contention).

⁹⁹ See Motion at 8-16.

¹⁰⁰ See *Davis-Besse*, LBP-12-27, 76 NRC at 611.

¹⁰¹ Such a request for reconsideration also would be late. 10 C.F.R. § 2.323(e) states that such requests must be filed within 10 days of the action for which reconsideration is requested. Proposed Contention 6 was filed well past that deadline.

B. Contention 6 Does Not Satisfy the NRC’s Contention Admissibility Requirements in 10 C.F.R. § 2.309(f)(1)

Contention 6 is presented as an assortment of unfocused environmental and non-environmental arguments (referred to below as “safety” arguments). As demonstrated below, Contention 6 should be rejected because neither its environmental nor safety arguments satisfy the contention admissibility requirements in 10 C.F.R. § 2.309(f)(1). Specifically, Contention 6 challenges issues outside the scope of license renewal, contrary to 10 C.F.R. § 2.309(f)(1)(iii); does not show that a genuine dispute exists on a material issue of law or fact, contrary to 10 C.F.R. § 2.309(f)(1)(vi); lacks adequate factual support, contrary to 10 C.F.R. § 2.309(f)(1)(v); and raises issues that are not material to the license renewal proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iv).

1. Legal Standards Governing Admissibility

In addition to being timely, a newly–proposed contention must meet the intentionally strict admissibility requirements set forth in 10 C.F.R. § 2.309(f)(1)(i) to (vi). Under 10 C.F.R. § 2.309(f)(1), a hearing request “must set forth with particularity the contentions sought to be raised.” Further, each contention must:

- (1) provide a specific statement of the legal or factual issue sought to be raised;
- (2) provide a brief explanation of the basis for the contention;
- (3) demonstrate that the issue raised is within the scope of the proceeding;
- (4) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (5) provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents that support the petitioner’s position and upon which the petitioner intends to rely; and

- (6) provide sufficient information to show that a genuine dispute exists with regard to a material issue of law or fact.¹⁰²

The purpose of these six criteria is to “focus litigation on concrete issues and result in a clearer and more focused record for decision.”¹⁰³ The NRC’s contention admissibility rules are “strict by design.”¹⁰⁴ The rules were “toughened . . . in 1989 because in prior years ‘licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation.’”¹⁰⁵ Failure to comply with any one of the six admissibility criteria is grounds for rejecting a proposed contention.¹⁰⁶ As the Commission has held, an admitted contention is defined by its stated bases, and licensing boards must “specify each basis relied upon for admitting a contention.”¹⁰⁷

Also critical to the analysis of Contention 6 are two other principles governing the admissibility of contentions. First, the petitioner bears the burden to present the factual information or expert opinions necessary to support its contention adequately, and failure to do so requires the Board to reject the contention under 10 C.F.R. § 2.309(f)(1)(v).¹⁰⁸ Second, to raise a sufficiently-supported genuine dispute on a material issue of law or fact under 10 C.F.R. § 2.309(f)(1)(vi), a petitioner must “read the pertinent portions of the license application . . . state

¹⁰² See 10 C.F.R. § 2.309(f)(1)(i)-(vi). The seventh contention admissibility requirement—10 C.F.R. § 2.309(f)(1)(vii)—is only applicable in proceedings arising under 10 C.F.R. § 52.103(b) and, therefore, has no bearing on the admissibility of proposed contentions in this proceeding.

¹⁰³ Final Rule, Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004). The Commission also has explained that its “strict contention rule is designed to avoid resource-intensive hearings where petitioners have not provided sufficient support for their technical claims, and do not demonstrate a potential to meaningfully participate and inform a hearing.” *Davis-Besse*, LBP-12-27, 76 NRC at 592.

¹⁰⁴ *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001), *petition for recons. denied*, CLI-02-1, 55 NRC 1 (2002).

¹⁰⁵ *Id.* (quoting *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 334 (1999)).

¹⁰⁶ Changes to Adjudicatory Process, 69 Fed. Reg. at 2221; see also *Davis-Besse*, LBP-12-27, 76 NRC at 592; *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999).

¹⁰⁷ *Seabrook*, CLI-12-5, 75 NRC at 310 n.50.

¹⁰⁸ See *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 262 (1996).

the applicant’s position and the petitioner’s opposing view,” and explain why it disagrees with the applicant.¹⁰⁹ If a petitioner believes the license application fails to adequately address a relevant issue, then the petitioner is to “explain why the application is deficient.”¹¹⁰ This is because the Commission “reserve[s] [its] hearing process for genuine, material controversies between knowledgeable litigants.”¹¹¹ As explained below, Intervenors have failed to meet these standards.

2. Contention 6 Raises Issues that Are Outside the Scope of this License Renewal Proceeding

Contention 6 consists of an assortment of questions and arguments on different subjects related to the Davis-Besse Shield Building, most of which are not within the scope of license renewal, contrary to 10 C.F.R. § 2.309(f)(1)(iii). Contentions are necessarily limited to issues that are germane to the specific application pending before the Board.¹¹² This section identifies those topics that fall well outside the scope of the license renewal proceeding and, thus, should be summarily rejected by the Board.¹¹³

¹⁰⁹ Final Rule, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989); *Millstone*, CLI-01-24, 54 NRC at 358.

¹¹⁰ Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. at 33,170; *see also Ariz. Pub. Serv. Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, & 3), CLI-91-12, 34 NRC 149, 156 (1991).

¹¹¹ *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-08, 75 NRC 393, 416 (2012) (internal citations and quotations omitted).

¹¹² *See Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 204 (1998); *see also Portland Gen. Elec. Co.* (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289 n.6 (1979) (holding that any contention that falls outside the specified scope of the proceeding must be rejected).

¹¹³ To admit a new contention, an intervenor must demonstrate “that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding.” 10 C.F.R. § 2.309(f)(1)(iv). As the Commission has observed, “[t]he dispute at issue is ‘material’ if its resolution would ‘make a difference in the outcome of the licensing proceeding.’” *Oconee*, CLI-99-11, 49 NRC at 333-34 (citing Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,172 (Aug. 11, 1989)). The findings that the NRC must make prior to issuing a renewed license are found in 10 C.F.R. § 54.29. As demonstrated in this section, arguments related to topics such as QA, alleged management failures, concrete voiding, and rebar cracking are simply unrelated to aging management. For those same reasons, these arguments also are not material to the findings the NRC must make in this proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iv). This provides an additional basis for rejecting these arguments for failing to satisfy the contention admissibility requirements.

a. QA and Management Competence

The apparent thesis of Contention 6 is that there have been numerous issues with the Davis-Besse Shield Building, including the concrete voiding, rebar cracking, and additional laminar cracking, and these issues reflect “management issues” and “QA failings” that must be addressed as part of license renewal.¹¹⁴ For example, the wording of the statement of the contention itself states: “These [Shield Building] problems represent ongoing aging problems compounded and intertwined with *management failures* The Draft and Final SEIS documents must be reconfigured in recognition of the *lax management and QA failings*”¹¹⁵ The Commission, however, has repeatedly held that issues related to management competence and QA are outside the scope of license renewal.¹¹⁶

The Commission rejected similar challenges in the *Prairie Island* and *Diablo Canyon* license renewal proceedings. In *Prairie Island*, the Commission reversed admission of a contention challenging an applicant’s safety culture, which argued that the applicant’s alleged failure to “promptly and effectively correct deficient conditions call[ed] into question the applicant’s ability to effectively implement [an] aging management program during the period of extended operation.”¹¹⁷ In agreeing with the applicant and the NRC Staff that the contention would bring operational issues that are already addressed by existing NRC regulatory processes within license renewal proceedings, the Commission stated:

We stated unambiguously in our License Renewal Rule that
“license renewal should not include a new, broad-scoped inquiry

¹¹⁴ See Motion at 2, 7, 17-18, 20-21, 23-24, 26-28, 29, 33, 35-36.

¹¹⁵ *Id.* at 26 (emphasis added).

¹¹⁶ See *Pac. Gas & Elec. Co* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-11-11, 74 NRC 427, 432-35 (2011) (“We agree that Contention TC-1 falls outside the scope of this proceeding. Claims of ‘management competence’ generally relate to current operations.”); *Prairie Island*, CLI-10-27, 72 NRC 481, 490-92 (“[B]road-based issues akin to safety culture -- such as operational history, quality assurance, quality control, management competence, and human factors -- [are] beyond the bounds of a license renewal proceeding”).

¹¹⁷ *Prairie Island*, CLI-10-27, 72 NRC at 484-85.

into compliance that is separate from and parallel to [our] ongoing compliance oversight activity.” We specifically indicated that other broad-based issues akin to safety culture – such as operational history, *quality assurance*, *quality control*, *management competence*, and human factors – were beyond the bounds of a license renewal proceeding. This is because these conceptual issues fall outside the bounds of the passive, safety-related physical systems, structures and components that form the scope of our license renewal review.¹¹⁸

In *Diablo Canyon*, the Commission reversed admission of a contention alleging an “ongoing pattern of difficulties in managing [the licensee’s] design basis programs and activities.”¹¹⁹ The Commission reversed the admission of the contention for reasons similar to those in *Prairie Island*, concluding that “[c]laims of ‘management competence’ generally relate to current operations” and are beyond the scope of a license renewal proceeding.¹²⁰

Intervenors’ here have merely recycled previously rejected arguments regarding purported management competence and QA failures that fall well outside the scope of this license renewal proceeding, and therefore should be rejected. These arguments, issues, and questions reside firmly in the realm of ongoing plant operations, and are the subject of ongoing, intrusive NRC inspection and oversight. Indeed, these arguments are rehashed from Contention 5, related to safety culture, and were previously rejected by this Board.¹²¹

b. Current Licensing Basis

The Commission has stated that “[a]djudicatory hearings in individual license renewal proceedings will share the same scope of issues as our NRC Staff review, for our hearing process (like our Staff’s review) necessarily examines only the questions our safety rules make

¹¹⁸ *Id.* at 490-91 (citations omitted) (emphasis added).

¹¹⁹ *See Diablo Canyon*, CLI-11-11, 74 NRC at 432-35.

¹²⁰ *Id.* at 435.

¹²¹ *See Davis-Besse*, LBP-12-27, 76 NRC at 611.

pertinent.”¹²² In this regard, the Commission has specifically limited its license renewal safety review to the matters specified in 10 C.F.R. §§ 54.21 and 54.29, which focus on the management of aging of certain systems, structures and components, and the review of time-limited aging analyses.¹²³ Specifically, applicants must “demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation,” at a “detailed . . . ‘component and structure level,’ rather than at a more generalized ‘system level.’”¹²⁴ Thus, the “potential detrimental effects of aging that are not routinely addressed by ongoing regulatory oversight programs” are the issues that define the scope of the safety review in license renewal proceedings.¹²⁵ The Davis-Besse Board has recognized this as well.¹²⁶

The NRC’s license renewal regulations thus deliberately and sensibly reflect the distinction between *aging management issues*, on the one hand, and the *ongoing regulatory process* on the other.¹²⁷ The NRC’s longstanding license renewal framework is premised upon the notion that, with the exception of aging management issues, the NRC’s ongoing regulatory process is adequate to ensure that the current licensing basis (“CLB”) of operating plants

¹²² *Fla. Power & Light Co.* (Turkey Point Nuclear Power Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 10 (2001); see also Final Rule, Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,482 n.2 (May 8, 1995).

¹²³ See *Turkey Point*, CLI-01-17, 54 NRC at 7-8; *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2), CLI-02-26, 56 NRC 358, 363 (2002).

¹²⁴ *Turkey Point*, CLI-01-17, 54 NRC at 8 (quoting Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. at 22,462).

¹²⁵ *Id.* at 7. Detrimental aging effects can result from, for example, metal fatigue, erosion, corrosion, thermal and radiation embrittlement, microbiologically induced effects, creep, and shrinkage. See *id.* at 7-8.

¹²⁶ *Davis-Besse*, LBP-12-27, 76 NRC at 608-09 (“Current safety issues are beyond the scope of a license renewal proceeding.”).

¹²⁷ Specifically, in developing Part 54, the NRC sought “to develop a process that would be both efficient, avoiding duplicative assessments where possible, and effective, allowing the NRC Staff to focus its resources on the most significant safety concerns at issue during the renewal term.” *Turkey Point*, CLI-01-17, 54 NRC at 7. See also *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-07-08, 65 NRC 124, 129 (2007) (reiterating that security issues are unrelated to the detrimental effects of aging, and are outside the scope of license renewal proceedings).

provides and maintains an acceptable level of safety.¹²⁸ As the Commission explained in *Turkey*

Point:

[CLB is] a term of art comprehending the various Commission requirements applicable to a specific plant that are in effect at the time of the license renewal application. . . . The [CLB] represents an “evolving set of requirements and commitments for a specific plant that are modified as necessary over the life of a plant to ensure continuation of an adequate level of safety.” 60 Fed. Reg. at 22,473. It is effectively addressed and maintained by ongoing agency oversight, review, and enforcement.¹²⁹

For that reason, the Commission concluded that requiring a full reassessment of safety issues that continue to be “routinely monitored and assessed by ongoing agency oversight and agency-mandated licensee programs” would be “both unnecessary and wasteful.”¹³⁰ The Commission reasonably refused to “throw open the full gamut of provisions in a plant’s current licensing basis to re-analysis during the license renewal review.”¹³¹

Contentions seeking to challenge the adequacy of the CLB for the Davis-Besse facility are clearly outside the scope of this license renewal proceeding.¹³² Thus, for example, issues pertaining to emergency planning are excluded from consideration in license renewal proceedings, because “[e]mergency planning is, by its very nature, *neither germane to age-related degradation nor unique to the period covered by the . . . license renewal application.*”¹³³

¹²⁸ See Final Rule, Nuclear Power Plant License Renewal; Revisions, 56 Fed. Reg. 64,943, 64,946 (Dec. 13, 1991). The term “current licensing basis” is defined in 10 C.F.R. § 54.3. See also 10 C.F.R. §§ 54.29, 54.30.

¹²⁹ *Turkey Point*, CLI-01-17, 54 NRC at 9.

¹³⁰ *Id.* at 7.

¹³¹ *Id.* at 9.

¹³² See *id.* at 8-9, 23; see also *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 117-18 (2006) (holding that “review of a license renewal application does not reopen issues relating to a plant’s current licensing basis, or any other issues that are subject to routine and ongoing regulatory oversight and enforcement”); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-26, 56 NRC 358, 364 (2002) (“This agency’s ongoing regulatory oversight programs routinely address many safety issues and will continue to address them in years 41 through 60 of a plant’s life . . .”).

¹³³ *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-05-24, 62 NRC 551, 561 (2005) (emphasis added).

Likewise, the Commission has expressly stated that issues such as “quality assurance, physical protection (security), and radiation protection requirements[] are not subject to physical aging processes that may cause noncompliance with those aspects of the CLB.”¹³⁴

Intervenors raise numerous issues that form part of the Davis-Besse CLB, and are “neither germane to age related degradation nor unique to the period covered by the . . . license renewal application.”¹³⁵ These include:

- Complaints about the 2002 Reactor Pressure Vessel Head degradation event.¹³⁶
- Complaints about the number of cuts in the Shield Building.¹³⁷
- Complaints about earlier repairs to the Shield Building.¹³⁸
- Complaints about Shield Building concrete voiding.¹³⁹ As discussed above, the voiding was due to an improper concrete pour in 2011, not aging.
- Complaints about Shield Building rebar cracking.¹⁴⁰ As discussed above, the rebar cracking was due to the hydro-demolition process in 2014, not aging.
- Complaints about the NRC’s review of the Shield Building cracking.¹⁴¹
- Complaints about seismic hazards at the site.¹⁴²
- Complaints about the current condition of the inner rebar mat.¹⁴³

These issues do not relate to age-related degradation or the period of extended operation that is requested by FENOC in the Davis-Besse LRA, and therefore, are part of the Davis-Besse CLB.

¹³⁴ Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. at 22,475.

¹³⁵ *Millstone*, CLI-05-24, 62 NRC at 561.

¹³⁶ *See Motion* at 7-8, 34-35.

¹³⁷ *See id.* at 15.

¹³⁸ *See id.* at 4-5, 31-32.

¹³⁹ *See id.* at 3-4, 29-31.

¹⁴⁰ *See id.* at 4, 31.

¹⁴¹ *See id.* at 6, 33.

¹⁴² *See id.* at 8, 11, 20.

¹⁴³ *See id.* at 14, 16.

Intervenors fail to advance any such connection to license renewal. Additionally, even if they were to relate to age-related degradation, Intervenors do not identify a sufficient linkage between their arguments and the Davis-Besse period of extended operation. For these reasons, the above arguments fall outside the scope of this license renewal proceeding and should be rejected.¹⁴⁴

c. Challenges to NRC Environmental Regulations

Intervenors also appear to vaguely question the applicability of the Commission's "Category 1" determination for "Postulated Accidents" in 10 C.F.R. Part 51, Subpart A, Appendix B based on the Shield Building issues.¹⁴⁵ This is an improper challenge to an NRC regulation.¹⁴⁶

Briefly by way of background, the Commission has concluded that many environmental issues that apply to license renewal applicants could be resolved generically.¹⁴⁷ Thus, in 1996, the NRC published its generic findings in NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants ("GEIS").¹⁴⁸ The NRC has also amended its environmental regulations at 10 C.F.R. Part 51 to reflect certain findings in the GEIS.¹⁴⁹

¹⁴⁴ One additional issue that is completely outside the scope of this proceeding is Intervenors' complaints about the Freedom of Information Act process. *See id.* at 10 n.3. That topic has no connection to aging management or any other issue within the scope of this proceeding.

¹⁴⁵ *Id.* at 20.

¹⁴⁶ A contention that challenges an NRC rule is outside the scope of the proceeding because, absent a waiver, "no rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding." 10 C.F.R. § 2.335(a).

¹⁴⁷ *See* Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,467-468 (June 5, 1996).

¹⁴⁸ NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Vol. 1 (May 1996) ("1996 GEIS"), *available at* ADAMS Accession No. ML040690705.

¹⁴⁹ *See* Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. at 28,467. In 2013, the NRC revised the GEIS to incorporate lessons learned and knowledge gained from plant-specific environmental reviews, and to reflect changes to Federal laws and new information and research published since the 1996 GEIS. NUREG-1437, Rev. 1, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Vol. 1 (June 2013) ("2013 GEIS"), *available at* ADAMS Accession No. ML13106A241. At the same time, the NRC amended its environmental regulations at 10 C.F.R. Part 51 to reflect certain findings in the revised GEIS. *See* Revisions to Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 78 Fed. Reg. 37,282 (June 20, 2013).

Part 51 divides the environmental requirements for license renewal into Category 1 and Category 2 issues.¹⁵⁰ Category 1 issues are those resolved generically by the GEIS or that otherwise need not be addressed as part of license renewal, whereas Category 2 issues require plant-specific review.¹⁵¹ For each license renewal applicant, Part 51 requires that the NRC Staff prepare a plant-specific supplement to the GEIS that adopts applicable generic impact findings from the GEIS, evaluates any new and significant information, and discusses site-specific impacts.¹⁵²

(1) Design Basis Accidents

Intervenors challenge consideration of design basis accidents when they state:

Despite the ‘small’ significance assigned to Category 1 ‘Postulated Accidents’ at 10 C.F.R. Part 51, Subpart A, Appendix B, Intervenors contend that the poor quality assurance management of the structural integrity of the shield building, from concrete voids, to defective rebar, to a continuing misunderstanding of the scope and extent of the unique cracking phenomenon, should negate the generic finding in this license renewal case.¹⁵³

The Category 1 Postulated Accidents are design basis accidents. The NRC regulations specify that design basis accidents are a Category 1 issue with a “SMALL” impact, and state that “the environmental impacts of design-basis accidents are of small significance for all plants.”¹⁵⁴ Additionally, 10 C.F.R. § 51.53(c) states that a license renewal applicant need not provide a site-specific analysis of these environmental impacts. Intervenors impermissibly challenge this regulation by claiming that the Category 1 issue is inapplicable.¹⁵⁵ A proposed contention that

¹⁵⁰ See generally 10 C.F.R. pt. 51, subpt. A, app. B, tbl. B-1.

¹⁵¹ See Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. at 28,474; Revisions to Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 78 Fed. Reg. at 37,283-284 n.2.

¹⁵² See 10 C.F.R. § 51.95(c).

¹⁵³ Motion at 20.

¹⁵⁴ 10 C.F.R. pt. 51, subpt. A, app. B, tbl. B-1.

¹⁵⁵ Motion at 20.

challenges an NRC rule is outside the scope of this proceeding because, absent a waiver, “no rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding.”¹⁵⁶

Intervenors have not requested a waiver, much less satisfied the stringent requirements governing such a waiver request. In order to seek waiver of a rule in a particular adjudicatory proceeding, a petitioner must submit a petition pursuant to 10 C.F.R. § 2.335. The requirements for a Section 2.335 petition are as follows:

The sole ground for petition of waiver or exception is 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.¹⁵⁷

Further, such a petition “*must be accompanied by an affidavit that identifies the specific aspect or aspects of the subject matter of the proceeding as to which the application of the rule or regulation (or provision of it) would not serve the purposes for which the rule or regulation was adopted,*” and “*must state with particularity the special circumstances alleged to justify the waiver or exception requested.*”¹⁵⁸

In accordance with NRC precedent, a Section 2.335 petition “can be granted only in unusual and compelling circumstances.”¹⁵⁹ The Commission decision in the *Millstone* case states the test for Section 2.335 petitions, under which the petitioner must demonstrate that it satisfies each of the following four criteria:

¹⁵⁶ 10 C.F.R. § 2.335(a); *see also Exelon Generation Co.* (Limerick Generating Station, Units 1 & 2), CLI-12-19, 76 NRC 377, 384 (2012) (“[A] waiver [is] required to litigate any new and significant information relating to a Category 1 issue.”); *see also Davis-Besse*, LBP-11-13, 73 NRC at 550 (“A challenge to a Commission rule or regulation, however, is outside the scope of an adjudicatory hearing unless the petitioner first obtains a waiver.”).

¹⁵⁷ *Id.* § 2.335(b).

¹⁵⁸ *Id.* (emphasis added).

¹⁵⁹ *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), ALAB-895, 28 NRC 7, 16 (1988), *aff’d*, CLI-88-10, 28 NRC 573, 597 (1988), *recons. denied*, CLI-89-3, 29 NRC 234 (1989) (citation omitted).

(i) the rule’s strict application “would not serve the purposes for which [it] was adopted”; (ii) the movant has alleged “special circumstances” that were “not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived”; (iii) those circumstances are “unique” to the facility rather than “common to a large class of facilities”; and (iv) a waiver of the regulation is necessary to reach a “significant safety problem.”¹⁶⁰

If the petitioner fails to satisfy any of the factors of the four-part test required for making a prima facie showing, then the matter may not be litigated, and “the presiding officer may not further consider the matter.”¹⁶¹ Even if they had submitted a waiver request, Intervenors could not satisfy the above test given the lack of connection between the specified Shield Building issues and consideration of design basis accidents during the license renewal environmental review.

Because Intervenors have not submitted a waiver request, have not submitted the required affidavit, have not demonstrated “unusual and compelling circumstances,” and cannot satisfy the *Millstone* test, their arguments regarding Category 1 “Postulated Accidents” should be rejected as an improper challenge to NRC regulations and outside the scope of this proceeding.

(2) *Severe Accidents*

Intervenors also speculatively “challenge” consideration of severe accidents by stating that “[t]he potential for severe accidents might be implicated were the recurring concrete voids, or use of below-grade and/or damaged rebar allowed to be repeated in the closure of the shield building during the current steam generator swapout and any future, as-yet unanticipated, needs

¹⁶⁰ *Millstone*, CLI-05-24, 62 NRC at 559-60 (citing *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-89-20, 30 NRC 231, 235 (1989)); *Seabrook*, CLI-88-10, 28 NRC at 597); see also *Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-11-11, 74 NRC at 444-49 (denying intervenor’s waiver request, filed contemporaneously with petition to intervene, for failure to show special circumstances at Diablo Canyon requiring site-specific analysis of the environmental impacts of spent fuel pool storage).

¹⁶¹ 10 C.F.R. § 2.335(c); see also *Millstone*, CLI-05-24, 62 NRC at 560 (“The use of ‘and’ in this list of requirements is both intentional and significant. For a waiver request to be granted, *all four* factors must be met.”).

to perforate the shield building.”¹⁶² This suggestion improperly challenges the Commission’s generic determination regarding severe accidents.

With respect to severe accidents, the GEIS provides a generic “bounding” evaluation of severe accident impacts and the technical basis for that evaluation.¹⁶³ Based on the GEIS evaluation, Part 51 concludes that “[t]he probability-weighted consequences of atmospheric releases, fallout onto open bodies of water, releases to ground water, and societal and economic impacts from severe accidents are *small for all plants*.”¹⁶⁴ The Commission determined that the GEIS analysis for the impacts of severe accidents would generally over-predict environmental consequences.¹⁶⁵ The Commission stated in *Pilgrim* that “[b]ecause the GEIS provides a severe accident impacts analysis that envelopes the potential impacts at *all* existing plants, the environmental impacts of severe accidents during the license renewal term already have been addressed generically in bounding fashion.”¹⁶⁶ Thus, a plant-specific analysis of severe accident impacts is not required in individual license renewal proceedings.¹⁶⁷

Consistent with these principles, this Board has acknowledged that “[t]he regulation codifying the Commission’s determination that the probability-weighted consequences of a severe accident (risk) are small in the context of a license renewal proceeding cannot be

¹⁶² Motion at 20 (emphasis added).

¹⁶³ See *Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station)*, CLI-10-11, 71 NRC 287, 316 (2010); 1996 GEIS § 5.3.3; 2013 GEIS § 4.9.1.2; *id.*, App. E.

¹⁶⁴ 10 C.F.R. pt. 51, subpt. A, app. B, tbl. B-1 (Postulated Accidents; Severe Accidents) (emphasis added).

¹⁶⁵ See *Environmental Review for Renewal of Nuclear Power Plant Operating Licenses*, 61 Fed. Reg. at 28,480; *Revisions to Environmental Review for Renewal of Nuclear Power Plant Operating Licenses*, 78 Fed. Reg. at 37,289.

¹⁶⁶ *Pilgrim*, CLI-10-11, 71 NRC at 316.

¹⁶⁷ See *Environmental Review for Renewal of Nuclear Power Plant Operating Licenses*, 61 Fed. Reg. at 28,480; see also *Pilgrim*, CLI-10-11, 71 NRC at 316 (“NRC SAMA analyses are not a substitute for, and do not represent, the NRC NEPA analysis of potential impacts of severe accidents.”); *Nuclear Energy Institute; Denial of Petition for Rulemaking*, 66 Fed. Reg. 10,834, 10,834 (Feb. 20, 2001) (stating that “the impacts of severe accidents are encoded in the rule and are not open for review in individual license renewal actions”).

challenged in this proceeding.”¹⁶⁸ Furthermore, in rejecting an earlier argument by Intervenors challenging the same generic conclusion regarding severe accident impacts, this Board explained:

The statement challenges the agency regulation codifying the Commission’s determination that, for any license renewal of a nuclear power plant, the probability-weighted consequences of a severe accident are small. Unless a party first successfully petitions for a waiver or exception, it may not challenge Commission rules or regulations in an adjudicatory hearing. Intervenors have not petitioned for a waiver or exception to the small risk determination. Accordingly, the argument that severe accident risk is not small is in contravention of 10 C.F.R. § 2.309(f)(1)(iii) and so is outside the scope of this proceeding.¹⁶⁹

Intervenors have provided no basis for disturbing this generic finding regarding severe accidents, and have proffered no waiver petition pertaining to such a challenge. Therefore, their claims should be rejected as an improper challenge to the NRC’s regulations and outside the scope of this proceeding.

3. Contention 6 Does Not Show that a Genuine Dispute Exists with the Applicant on a Material Issue of Law or Fact

Section 2.309(f)(1)(vi) requires that a proposed contention “include references to specific portions of the application (including applicant’s environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute.” Section 2.309(f)(2) also allows new environmental contentions to be based on the DSEIS rather than the ER. The Commission has stated that “general assertions, without some effort to show why the assertions undercut findings or analyses in the [application], fail to satisfy the requirements of Section

¹⁶⁸ *Davis-Besse*, LBP-11-13, 73 NRC at 566.

¹⁶⁹ *Id.* at 568-69; *see also NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), LBP-11-02, 73 NRC 28, 46 (2011) (“Additionally, ‘no rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding’ unless the petitioner first obtains a waiver. One such regulation that cannot be challenged is the determination that, for any license renewal of a nuclear power plant, the probability-weighted consequences of a severe accident are small.” (citations omitted)).

2.309(f)(1)(vi).”¹⁷⁰ Because Intervenors have failed to challenge any portion of the LRA (including the ER) or the DSEIS, they have not demonstrated a genuine dispute with the applicant. Indeed, Intervenors have entirely ignored this contention admissibility factor.¹⁷¹

a. Intervenors’ Safety Arguments Do Not Raise a Genuine Dispute

Although Intervenors’ pleading avers generally that AMPs related to the Shield Building must be modified,¹⁷² they do not directly challenge the AMPs that address aging of the Shield Building. They do not say why any AMP is deficient, nor explain how it must be changed. This is the same underlying weakness for which Contention 5 failed when advanced in 2012.

The Commission has expressly ruled that “general assertions, without some effort to show why the assertions undercut findings or analyses in the [application], fail to satisfy the requirements of Section 2.309(f)(1)(vi).”¹⁷³ Specifically, Intervenors do not directly challenge the adequacy of the Structures Monitoring Program (AMP B.2.39) or the Shield Building Monitoring Program (AMP B.2.43) with respect to the Shield Building issues. In other words, even assuming all of the information in the proposed contention is correct, Intervenors do not demonstrate that the AMPs are insufficient to address the Shield Building issues.

Intervenors instead argue that Contention 6 should be admitted “in order to determine the adequacy of, and if need be, to challenge the sufficiency of, modifications to the [AMPs].”¹⁷⁴ From a prospective vantage point, Intervenors also state that they “seek to litigate the adequacy

¹⁷⁰ *South Carolina Elec. & Gas Co.* (Virgil C. Summer Nuclear Station, Units 2 & 3), CLI-10-1, 71 NRC 1, 21-22 (2010).

¹⁷¹ As discussed in this section, many arguments raised by Intervenors are unsupported and consist of bare assertions. For this same reason, these arguments also are not material to the findings the NRC must make, contrary to 10 C.F.R. § 2.309(f)(1)(iv). This provides an additional basis for rejecting these arguments for failing to satisfy the contention admissibility requirements.

¹⁷² See Motion at 2, 26-27, 26.

¹⁷³ *Summer*, CLI-10-1, 71 NRC at 21-22.

¹⁷⁴ Motion at 2.

of FENOC’s anticipated modifications to” the AMPs.¹⁷⁵ Indeed, Intervenors specifically acknowledge that it is “unclear” whether newer Shield Building issues impact the AMPs.¹⁷⁶ Thus, Intervenors have not challenged the AMPs, but state that they bring the contention so that they could challenge the AMPs in the future. Intervenors admit that they have not satisfied their burden of demonstrating with the requisite basis and specificity that there is a genuine dispute with FENOC on this topic.¹⁷⁷ This failure to challenge the Shield Building AMPs is one of the main reasons that the Board rejected Contention 5.¹⁷⁸ Boards have consistently rejected “open-ended, placeholder contentions” that are based purely on postulated future developments.¹⁷⁹ To the extent Intervenors rely on future events or future documents as support for their arguments, they must await those events or publication of those documents before attempting to proffer an admissible contention.

Intervenors also point to an RAI issued by the NRC to FENOC.¹⁸⁰ Specifically, Intervenors reference RAI B.2.43-4, which addresses additional laminar cracks and rebar cracking that are discussed above, and requests information on any modifications to the AMPs to

¹⁷⁵ *Id.*

¹⁷⁶ *Id.* at 14.

¹⁷⁷ *See Summer*, CLI-10-1, 71 NRC at 21-22.

¹⁷⁸ *See Davis-Besse*, LBP-12-27, 76 NRC at 609-10. As noted above, Intervenors repeat a number of arguments from their Contention 5 filings, including claims regarding substandard rebar, micro-cracking, radial cracking, future “cut-throughs,” and the inner rebar mat. *See Motion* at 8-16. Intervenors fail to challenge the LRA with these arguments, and therefore they also fail to demonstrate a genuine dispute on a material issue of law or fact.

¹⁷⁹ *See, e.g., S. Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3 & 4), LBP-09-3, 69 NRC 139, 155-58 (2009). In this regard, the Commission recently explained: “Nor do our rules contemplate motions filed ‘as a ‘placeholder’ for a further motion to be filed later.’” *Exelon Generation Co., LLC* (Byron Nuclear Station, Units 1 & 2, Braidwood Nuclear Station, Units 1 & 2), CLI-14-06, 79 NRC ___, slip op. at 5 (May 2, 2014) (quoting *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 120 (2009)).

¹⁸⁰ *See Motion* at 6-7, 10, 12-13, 33-34, Exhibit 7.

address those events.¹⁸¹ Intervenor’s reference to this RAI as a basis for Contention 6 clearly does not support an admissible contention.

It is a long-standing NRC adjudicatory principle that RAIs are a common and expected feature of the review process and do not form the basis for admissible contentions.¹⁸² RAIs are a standard and necessary part of the NRC licensing process—reflective of the Staff’s extensive review process and the applicant’s obligation to provide information, determine its materiality, and update the application, if necessary. Therefore, Intervenor’s unadorned reference to this RAI in Contention 6 does not support an admissible contention.

Intervenor further repeat the fact that FENOC is conducting a cause evaluation regarding the additional laminar cracking discussed above.¹⁸³ Indeed it is. Based on the results of that evaluation or any other information FENOC identifies regarding the cracking, FENOC will consider whether and, if so, how any AMP must be revised to address aging management issues given the additional laminar cracking. FENOC’s evaluation and the pending RAI response, however, are ongoing and cannot form the basis for the proposed contention. If FENOC determines that any material revisions to the LRA are necessary, then Intervenor will have an opportunity to timely challenge them—subject to satisfying all applicable timeliness and admissibility requirements based on that change.

Finally, in addition to being outside the scope of this proceeding, Intervenor’s claims of QA and management failures do not demonstrate a genuine dispute with the applicant on a

¹⁸¹ See *id.*, Exhibit 7.

¹⁸² See *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 242 (2008) (“The mere issuance of RAIs does not mean an application is incomplete for docketing.”); *Nuclear Mgmt. Co., LLC* (Monticello Nuclear Generating Plant), CLI-06-06, 63 NRC 161, 164 (2006) (“[W]e have held repeatedly that the mere issuance of a staff RAI does not establish grounds for a litigable contention.”); *Oconee*, CLI-99-11, 49 NRC at 336-37 (stating that RAIs are a standard part of NRC licensing reviews and do not suggest that the application is incomplete, and petitioners must do more than rest on the mere existence of RAIs as a basis for contentions).

¹⁸³ See, e.g., Motion at 7, 34.

material issue of law or fact.¹⁸⁴ Here again, Intervenors fail to challenge the LRA. Additionally, Intervenors do not identify any legal requirement related to QA or management that has not been satisfied by FENOC. Thus, they have neither provided the requisite “references to specific portions of the application” nor “the supporting reasons for each dispute” that are required to satisfy 10 C.F.R. § 2.309(f)(1)(vi).

b. Intervenors’ Environmental Arguments Do Not Raise a Genuine Dispute

Intervenors assert, but provide no insight on what they mean with a statement that the “Implications of FENOC’s Repeated Management Failings Must Be Analyzed Within the Supplement Environmental Impact Statement.”¹⁸⁵ Rather than identify any specific challenges to the ER or DSEIS, however, Intervenors simply make vague references to the need to “identify incremental QA failings related to the shield building” and those events “should implicate Severe Accident Mitigation Alternatives (SAMA) consideration within the DSEIS.”¹⁸⁶ ER Section 4.20 discusses SAMAs and ER Attachment E provides a full SAMA analysis for Davis-Besse. Similarly, DSEIS Section 5.3 and Appendix F address SAMAs for Davis-Besse. Intervenors do not even cite these sections, much less discuss or challenge any of this information. This failure to challenge the ER or the DSEIS with specificity is particularly noteworthy here, because it is unclear how the Shield Building issues could affect any environmental evaluation at all, much less the SAMA evaluation, and Intervenors have supplied no such articulation or bases for their claims.

¹⁸⁴ See *id.* at 2, 7, 17-18, 20-21, 23-24, 26-28, 29, 33, 35-36.

¹⁸⁵ *Id.* at 17.

¹⁸⁶ *Id.* at 18.

Intervenors also appear to allege a contention of omission, arguing that the DSEIS and SAMA analysis do not mention their Shield Building concerns.¹⁸⁷ For a claim of omission, Section 2.309(f)(1)(vi) requires that “if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner’s belief” must be provided. Intervenors have not identified any legal requirement for providing this information in the DSEIS.

Therefore, the environmental arguments in Contention 6 should be denied pursuant to 10 C.F.R. § 2.309(f)(1)(vi) because they simply do not demonstrate a genuine dispute.

4. Contention 6 Is Not Adequately Supported

a. The Environmental Arguments Lack Adequate Factual Support

Further underscoring its inadmissibility, Contention 6 is devoid of supporting alleged facts or expert opinions regarding the environmental arguments. For example, Contention 6 uses the acronym “SAMAs,” but provides absolutely no explanation for why the Shield Building issues discussed above impact that SAMA evaluation.¹⁸⁸

Mere “notice pleading” does not support admission of Contention 6.¹⁸⁹ Contention 6 does not in any way describe a single inadequacy with the contents of the SAMA evaluation in the LRA, nor does it point to any study or expert describing improper consideration of Shield Building issues in the Davis-Besse SAMA evaluation. Similarly, Intervenors neither explain, nor provide support for, why the Shield Building issues present an environmental issue, why the DSEIS is inadequate, why cracking would affect any accident analysis, or why the generic

¹⁸⁷ *See id.* at 9, 18.

¹⁸⁸ *See id.* at 9, 18, 23-24, 26, 29, 36-37.

¹⁸⁹ *N. Atl. Energy Serv. Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219 (1999) (holding that mere notice pleading, based on nothing more than unspecified information and unsupported belief, is insufficient for a petition to intervene); *see also Fansteel, Inc.* (Muskogee, Okla. Site), CLI-03-13, 58 NRC 195, 203 (2003).

determination for postulated accidents should not apply. Indeed, Intervenors' environmental claims are devoid of any support, whatsoever.

The Commission has found that an admissible contention may not rest on such "bare assertions."¹⁹⁰ Therefore, these arguments should be denied pursuant to 10 C.F.R. § 2.309(f)(1)(v).

b. The Safety Arguments Lack Adequate Factual Support

Section 2.309(f)(1)(v) requires that a contention provide "alleged facts or expert opinions which support the requestor's/petitioner's position on the issue." The Commission has stated that a contention "will be ruled inadmissible if the petitioner 'has offered no tangible information, no experts, no substantive affidavits,' but instead only 'bare assertions and speculation.'"¹⁹¹ Additionally, regarding the determination of factual and legal support for a proposed contention, the Commission has further stated:

It is simply insufficient, for example, for a petitioner to point to an Internet Web site or article and expect the Board on its own to discern what particular issue a petitioner is raising, including what section of the application, if any, is being challenged as deficient and why. A contention must make clear why cited references provide a basis for a contention. . . . We expect our licensing boards to examine cited materials to verify that they do, in fact, support a contention. But it is not up to the boards to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves; boards may not simply "infer" unarticulated bases of contentions. It is a "contention's proponent, not the licensing board," that "is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement for the admission of contentions."¹⁹²

¹⁹⁰ *Fansteel*, CLI-03-13, 58 NRC at 203 (citing *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000)).

¹⁹¹ *Fansteel*, CLI-03-13, 58 NRC at 203.

¹⁹² *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006) (citations omitted).

Contention 6 does not satisfy the requirements for adequate support. While Intervenors pose various questions and make many conclusory statements throughout Contention 6, these issues either are unrelated or irrelevant to the purported topic of aging management of the Shield Building, or they consist of the “bare assertions and speculation” that the Commission and this Board have repeatedly deemed insufficient to support an admissible contention. Indeed, Intervenors’ extensive speculation was one of the primary reasons that the Board rejected the similar Contention 5.¹⁹³

The arguments raised by Intervenors and the reasons for FENOC concluding that they do not provide adequate support are provided below. Many of these issues also fail to support an admissible contention for additional reasons discussed in other sections of this Answer.

- *Arguments about additional Shield Building laminar cracking identified in 2013 (see Motion at 6, 12-13, 26, 32-33, Exhibits 6 and 7)* – These arguments consist of bare assertions and speculation; are unrelated to aging management of the Shield Building; and do not support challenges to the existing AMPs for the Shield Building. Intervenors largely use this information to criticize the Board’s decision on Contention 5, rather than to support Contention 6. Intervenors have provided no support for any connection between the laminar cracking and aging of the Shield Building.
- *Arguments about concrete voiding identified in 2014 (see Motion at 3-4, 7, 22, 25-26, 30, Exhibits 1, 2, 3, 4, and 5)* – These arguments consist of bare assertions and speculation; are unrelated to aging management of the Shield Building; and do not support challenges to the existing AMPs for the Shield Building. As discussed above, the concrete voiding was a current operations issue that resulted from an improper restoration of a temporary access opening in the Shield Building in 2011. Intervenors assert no nexus to aging management of the Shield Building.¹⁹⁴ Intervenors further demonstrate their speculation by stating “it is legitimate to wonder if there is any relationship between the void, which apparently was located along the top of the 2011 construction opening, and the cracked and broken rebar, also located inside the perimeter of the 2011 construction opening.”¹⁹⁵ Intervenors provide no facts or expert opinion to link these two events.

¹⁹³ See *Davis-Besse*, LBP-12-27, 76 NRC at 611; see also *Union Elec. Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 169 (2011).

¹⁹⁴ Intervenors also misunderstand the voiding issue by stating that “the void was caused by FENOC workers or contractors having left forming devices in the concrete in 2011.” Motion at 3. There were no forms left in the concrete; rather, the void was formed by an incomplete concrete pour during restoration of the temporary access opening in 2011.

¹⁹⁵ Motion at 7.

- *Arguments about rebar cracking identified in 2014* (see Motion at 1-2, 4, 6-7, 31-33, Exhibits 2, 3, and 7) – These arguments consist of bare assertions and speculation; are unrelated to aging management of the Shield Building; and do not support challenges to the existing AMPs for the Shield Building. As discussed above, the rebar cracking resulted from the hydro-demolition activities in 2014 to create a temporary access opening for the steam generator replacement, not some aging issue. Intervenors also repeatedly misconstrue facts about the rebar cracking by assuming that the rebar cracking issues had been present in the Shield Building since the prior restoration of the temporary access opening in 2011.¹⁹⁶ This assertion is without any basis. The rebar cracking was caused by the 2014 hydro-demolition process, not the 2011 activities. Intervenors’ understanding is directly contradicted by its own documents, which acknowledge that the cracking occurred in 2014.¹⁹⁷ Such misrepresentation of facts should not be tolerated and must be rejected.
- *Arguments about past concrete voiding in 2002 and 2011* (see Motion at 4-5, 7, 10, 29, Exhibits 4 and 5) – These arguments consist of bare assertions and speculation; are unrelated to aging management of the Shield Building; and do not support challenges to the existing AMPs for the Shield Building. For example, Intervenors point to events in 2002 in which FENOC identified surface concrete voids during restoration of an earlier temporary access opening in the Shield Building.¹⁹⁸ These events are unrelated to the voiding identified in 2014, and Intervenors provide no facts or expert opinion to link concrete voiding to aging.
- *Arguments regarding RAI B.2.43-4* (see Motion at 6-7, 10, 12-13, 33-34, Exhibit 7) – These arguments do not support challenges to the existing AMPs for the Shield Building; consist only of bare assertions and speculation; and do not explain why the RAI supports Contention 6. As discussed in the previous section, although Intervenors reference this RAI, they provide no explanation for how this RAI results in challenges to the AMPs for the Shield Building. For example, Intervenors state that “the public’s understanding of the precise current status of the shield building is further confounded by the NRC Staff’s opaque verbiage in the RAI of April 15, 2014.”¹⁹⁹ This does not support an admissible contention.²⁰⁰ Furthermore, as discussed above, it is a long-standing NRC adjudicatory

¹⁹⁶ See *id.* at 6-7, 33 (“[T]he NRC Staff thus admitted in the RAI that when the shield building was sealed shut following reactor head replacement in 2011, a stretch of the shield building wall which was 26-rebar-sections in length was not anchored to the rest of the rebar skeleton. The splices which joined the iron rebar rods together in the area of the shield building where the skeletal structure of the building was patched shut were cracked or broken at the time the concrete was poured to complete the re-closure. After the 2011 resealing of the shield building, Davis-Besse operated at full power for over two years.”); *id.* at 10 (“And the public now also knows of damage done to rebar in the breach area by hydro-demolition associated with the 2011 re-sealing of that building.”); *id.* at 11 (“[T]he fact that there was substandard rebar associated with the 2011 wall patch inspires questions in 2014 about the 2011 cracked and broken rebar uncovered by the hydro-demolition for the 2014 access opening.”).

¹⁹⁷ See Motion at 4, 31, Exhibit 3 (“The rebar was damaged during the cutting of this opening [in 2014].”).

¹⁹⁸ *Id.* at 4-5, 29, 31.

¹⁹⁹ *Id.* at 10 n.3.

²⁰⁰ Intervenors also misrepresent the RAI by claiming that the NRC has requested that FENOC modify the AMPs related to the Shield Building. See *id.* at 22 (“That [RAI] was also the first time that Intervenors learned that

principle that RAIs are a common and expected feature of the review process and by themselves do not form the basis for admissible contentions.²⁰¹

- *Arguments regarding seismic events and Shield Building cracking (see Motion at 20)* – These arguments are unrelated to aging management of the Shield Building during the period of extended operation; do not support challenges to the existing AMPs for the Shield Building; and consist only of bare assertions and speculation. For example, Intervenor state that “[a] severe accident might follow upon expanded cracking and a minor earthquake or thermal/pressure event within the shield building.”²⁰² Intervenor provide no support for this statement, only speculation.

In summary, Intervenor have not provided the “alleged facts or expert opinion” in support of its position and required by Section 2.309(f)(1)(v). Therefore, Contention 6 should be rejected for lack of requisite basis and specificity.

C. **Contention 6 Does Not Satisfy the Relevant Timeliness Requirements**

1. **Legal Standards Governing Timeliness**

Pursuant to the Hearing Notice and 10 C.F.R. § 2.309(b)(3), the deadline for timely petitions to intervene in this proceeding expired on December 27, 2010, over three years ago. Therefore, the Motion is subject to the relevant requirements in 10 C.F.R. Part 2 governing nontimely requests and/or petitions and contentions.²⁰³ Intervenor bear the burden of

the Staff was requesting FENOC to incorporate modifications into Davis-Besse’s [AMPs] from the August/September 2013 discovery of expanded shield building cracking and the February 2014 discovery of broken and cracked rebar.”); *see also id.* at 12-13 (“The NRC Staff’s RAIs seem to suggest, however, that the 2013 micro-cracking ‘discovery’ has serious implications for the 2017-2037 Shield Building cracking AMP.”). The RAI asks whether any modifications are needed; it does not request FENOC to make specific modifications. *See id.*, Exhibit 7.

²⁰¹ *See Millstone*, CLI-08-17, 68 NRC at 242; *Monticello*, CLI-06-06, 63 NRC at 164; *Oconee*, CLI-99-11, 49 NRC at 336-37.

²⁰² Motion at 20.

²⁰³ The Commission has indicated that for new contentions filed by an admitted party, the timeliness standard is 10 C.F.R. § 2.309(f)(2), not 10 C.F.R. § 2.309(c). *See Pa’ina Hawaii, LLC* (Materials License Application), CLI-10-18, 72 NRC 56, 86 n.171 (2010) (discussing the applicability of Section 2.309(f)(2) versus Section 2.309(c), and stating: “To be clear, in the circumstances presented here, where [the intervenor] was admitted to this case as a party at the time it filed [the new contention], consideration of the contention’s admissibility is governed by the provisions of § 2.309(f)(2), as well as the general contention admissibility requirements of § 2.309(f)(1).”). Therefore, because the proposed contention does not meet the timeliness requirements of Section 2.309(f)(2), the analysis should end. To be conservative and consistent with the ISO, however, FENOC also evaluates the timeliness requirements of Section 2.309(c).

successfully addressing the “stringent” late-filing criteria.²⁰⁴ As the Commission explained in *Vermont Yankee*: “We likewise frown on intervenors seeking to introduce a new contention later than the deadline established by our regulations, and we accordingly hold them to a higher standard for the admission of such contentions.”²⁰⁵

The 10 C.F.R. Part 2 timeliness regulations were amended in August 2012; under the current regulations new contentions must meet the requirements of 10 C.F.R. § 2.309(c)(1)(i)-(iii).²⁰⁶ The new regulations apply to “obligations and disputes that ar[o]se” after September 4, 2012, the effective date of the *Federal Register* notice.²⁰⁷ However, in a notice issued shortly after the rulemaking, the Board stated that the ISO “will continue to govern the conduct of this proceeding.”²⁰⁸ Accordingly, FENOC evaluates Contention 6 under the pre-August 2012 version of the regulations (*i.e.*, the “former” regulations). Nonetheless, the requirements under the former and new rules are generally the same in the context of this Answer.

Under the Board’s ISO,²⁰⁹ a new contention must meet the requirements of the former 10 C.F.R. § 2.309(f)(2)(i) through (iii), which provided that a petitioner may submit a new contention only with leave of the presiding officer upon a showing that:

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than information previously available; and

²⁰⁴ *Oyster Creek*, CLI-09-7, 69 NRC at 260-61; *see also Entergy Nuclear Vt. Yankee, LLC* (Vt. Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 338 & n.19 (2011).

²⁰⁵ *Vt. Yankee*, CLI-11-2, 73 NRC at 338.

²⁰⁶ *See* Amendments to Adjudicatory Process Rules and Related Requirements; Final Rule, 77 Fed. Reg. 46,562 (Aug. 3, 2012).

²⁰⁷ *Id.*

²⁰⁸ Licensing Board Notice (Advising Parties of Amendments to 10 C.F.R. Part 2) at 2 (Aug. 22, 2012) (unpublished).

²⁰⁹ *See* ISO at 12.

- (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

The ISO provides that “a motion and proposed new contention shall be deemed timely under [the former] 10 C.F.R. § 2.309(f)(2)(iii) if it is filed within sixty (60) days of the date *when the material information on which it is based first becomes available.*”²¹⁰

The ISO further states that if a motion and new contention are filed after the 60 day time period, then they “shall be deemed nontimely under [the former] 10 C.F.R. § 2.309(c).”²¹¹ The former Section 2.309(c) set forth the following eight-factor balancing test for nontimely filings:

- (i) Good cause, if any, for the failure to file on time;
- (ii) The nature of the requestor’s/petitioner’s right under the Act to be made a party to the proceeding;
- (iii) The nature and extent of the requestor’s/petitioner’s property, financial or other interest in the proceeding;
- (iv) The possible effect of any order that may be entered in the proceeding on the requestor’s/petitioner’s interest;
- (v) The availability of other means whereby the requestor’s/petitioner’s interest will be protected;
- (vi) The extent to which the requestor’s/petitioner’s interests will be represented by existing parties;
- (vii) The extent to which the requestor’s/petitioner’s participation will broaden the issues or delay the proceeding; and
- (viii) The extent to which the requestor’s/petitioner’s participation may reasonably be expected to assist in developing a sound record.

The burden is on Intervenors to demonstrate “that a balancing of these factors weighs in favor of granting the petition.”²¹² The eight factors that were in the former Section 2.309(c)(1)

²¹⁰ *Id.* (emphasis added).

²¹¹ *Id.*

were not of equal importance. The first factor, whether “good cause” exists for the failure to file on time, is entitled to the most weight.²¹³ If good cause is lacking, then a “compelling showing” must be made as to the remaining factors to outweigh the lack of good cause.²¹⁴ After good cause, the likelihood of substantial broadening of the issues and delay of the proceeding (factor seven) is the most significant factor.²¹⁵ Factors five (availability of other means) and six (interests represented by other parties) are entitled to the least weight.²¹⁶

2. The Motion Is Untimely

Contention 6 relates to the *discovery and existence* of (1) laminar cracking, (2) a concrete void, and (3) damaged rebar. Thus, the “date when the material information on which [Contention 6] is based first [became] available” is the key to timeliness.²¹⁷ Intervenors raise several possible bases to establish the timeliness of their claims; all are meritless.

Intervenors contend that the existence of the concrete void was announced by the NRC on February 19, 2014 and that this date should be the trigger date for timeliness purposes.²¹⁸ However, in their Motion, Intervenors acknowledge and rely on a *Toledo Blade* newspaper article that discussed the void; that article was published four days earlier on February 15,

²¹² *Tex. Utils. Elec. Co.* (Comanche Peak Steam Elec. Station, Units 1 & 2), CLI-88-12, 28 NRC 605, 609 (1988).

²¹³ *Dominion Nuclear Conn., Inc.* (Millstone Power Station, Unit 3), CLI-09-5, 69 NRC 115, 125-26 (2009) (“[The former Section 2.309(c)(1)] sets forth eight factors, the most important of which is ‘good cause’ for the failure to file on time. Good cause has long been interpreted to mean that the information on which the proposed new contention is based was not previously available.”) (citing *Pac. Gas & Elec. Co.* (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1, 6 (2008); *Tex. Utils. Elec. Co.* (Comanche Peak Steam Elec. Station, Unit 2), CLI-93-4, 37 NRC 156, 164-65 (1993)).

²¹⁴ *Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 & 2), CLI-86-8, 23 NRC 241, 244 (1986).

²¹⁵ *See, e.g., Project Mgmt. Corp.* (Clinch River Breeder Reactor Plant), ALAB-354, 4 NRC 383, 394 (1976).

²¹⁶ *See Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), LBP-00-8, 51 NRC 146, 154 (2000) (citing *Braidwood*, CLI-86-8, 23 NRC at 244-45).

²¹⁷ ISO at 12.

²¹⁸ Motion at 22.

2014.²¹⁹ Therefore, a proposed contention based on that information could only have been timely if filed no later than 60 days after February 15 (*i.e.*, April 16, 2014). Because Contention 6 was filed *after* April 16, 2014, it is clearly untimely under the former Section 2.309(f)(2)(iii) and the ISO.²²⁰

Intervenors' arguments regarding the initial public disclosure of the rebar damage is similarly unavailing. Intervenors argue that they "first learned of the discovery of shield building rebar failure on March 25, 2014."²²¹ But this information was also available to the public more than a month earlier, as it was discussed in the same February 15, 2014 *Toledo Blade* article.²²² Thus, any contentions based on the Shield Building rebar damage should have been filed no later than April 16, 2014. It is worth emphasizing that, as discussed above, even if Intervenors' arguments regarding the concrete void and the rebar damage had been timely, they relate to the current operation of Davis-Besse and are not relevant to the adequacy of the aging management programs required for license renewal.

Finally, Intervenors point to an April 15, 2014 RAI, stating that this correspondence was the first time that Intervenors learned about "expanded shield building cracking" uncovered in September 2013, and the resulting changes to Davis-Besse's Shield Building AMPs.²²³ In short, Intervenors concede that some information contained in the April 2014 RAI was simply additional detail on events from September 2013, eight months ago. In addition, detailed

²¹⁹ *See id.*, Exhibit 3 at 1.

²²⁰ Even if the February 19, 2014 Preliminary Notification contained new information that could form the basis for a new contention, such a contention would only have been timely if filed by April 21, 2014. Although it is dated April 21, 2014, Intervenors did not file proposed Contention 6 until after midnight (*i.e.*, on April 22, 2014), and thus the Preliminary Notification cannot form the basis for timeliness of any arguments that had a deadline of April 21. Likewise, Intervenors filed their Exhibit 3 even later on April 22, 2014, and therefore that document is late as well.

²²¹ Motion at 22.

²²² *Id.*, Exhibit 2 at 2 (stating that "[s]ome of the shield building's rebar needs to be replaced. It appears to have been damaged by the cut made through the wall").

²²³ *Id.* at 22.

information on the additional laminar cracking was publicly available in an NRC Inspection Report, dated November 1, 2013.²²⁴ Any information referenced by Intervenors post-dating these documents did not provide any new “material information.” Therefore, Contention 6 is clearly untimely under the former Section 2.309(f)(2)(iii) and the ISO because it was not filed within 60 days of the public information disclosing the existence of the additional laminar cracking in the Davis-Besse Shield Building.

Aside from the former Section 2.309(f)(2)(iii), Contention 6 also is untimely under the former Section 2.309(f)(2)(ii) because any other events or information relied upon are not “materially different than information previously available.” Intervenors have not demonstrated that there is any material new information in later documents, such as the April 15 RAI, that would warrant restarting the clock for the contention. The Commission has consistently held that the publication of a new document, standing alone, does not meet the requirements of the former 10 C.F.R. § 2.309(f)(2) unless the *facts* in that document are new and materially different from what was previously available.²²⁵ Because any more recent publication of information referenced by Intervenors does not provide any “materially different” facts, the more recent information does not render Contention 6 timely.

In summary, Contention 6 is untimely under the former Section 2.309(f)(2)(iii) and the ISO because it was filed months after the availability of information on the additional laminar cracking and after April 16, 2014 for the concrete voiding and rebar cracking issues, and therefore more than 60 days after the date when the most recent material information on which Contention 6 is based first became available. Additionally, Contention 6 is untimely under

²²⁴ See November 2013 Inspection Report at 26-28.

²²⁵ See, e.g., *Vt. Yankee*, CLI-11-02, 73 NRC at 344; see also *Prairie Island*, CLI-10-27, 72 NRC at 493-96.

Section 2.309(f)(2)(ii) because any other events or information relied upon are not “materially different than information previously available.”

Intervenors’ failure to file before April 16, 2014 is particularly confusing here, because counsel for Intervenors consulted with counsel for the other Parties on April 14, 2014, and indicated that Intervenors planned to file a new contention later that day. Nonetheless, Intervenors waited over a week to file Contention 6, rendering it entirely untimely.

3. The Untimely Motion Does Not Satisfy the Late-Filed Requirements

Because Intervenors do not satisfy the criteria of the former 10 C.F.R. § 2.309(f)(2), Contention 6 is untimely, and they must satisfy the late-filing criteria in the former Section 2.309(c)(1)(i)-(viii).²²⁶ Perhaps anticipating that Contention 6 is based on untimely information, Intervenors address the late-filing criteria in their Motion.²²⁷ As explained below, Intervenors have failed to demonstrate the necessary “good cause” for not filing on time under the former 10 C.F.R. § 2.309(c)(1)(i). Further, Intervenors have made no “compelling showing” as to the remaining factors to outweigh the lack of good cause.²²⁸ Accordingly, the balance of the factors under the former 10 C.F.R. § 2.309(c)(1) demands rejection of Contention 6.

a. Intervenors Have Not Shown Good Cause for Failing to File on Time

Intervenors’ attempt to demonstrate “good cause” is unavailing. To show “good cause,” Intervenors must show that they raised their contention in a timely manner, following the availability of new information.²²⁹ The Commission has explained that to demonstrate good

²²⁶ See *supra* Section III.C.1; see also ISO at 12; 10 C.F.R. § 2.309(c)(2) (2012) (“The requestor/petitioner shall address the factors in paragraphs (c)(1)(i) through (c)(1)(viii) of this section in its nontimely filing.”).

²²⁷ See Motion at 22-25.

²²⁸ *Braidwood*, CLI-86-8, 23 NRC at 244.

²²⁹ See *Exelon Generation Co.* (Early Site Permit for Clinton ESP Site), LBP-05-19, 62 NRC 134, 162-63 (2005) (finding that the requirements for a good cause showing under the former 10 C.F.R. § 2.309(c)(1)(i) “are analogous to the requirements of [the former] Sections 2.309(f)(2)(i) (information not previously available)

cause, a petitioner must show not only that it “acted promptly after learning of the new information, but the information itself must be *new* information, not information already in the public domain.”²³⁰ Intervenors do not even attempt to make this showing; instead they merely restate the proposed contention, describing what they allege rather than why they believe it is appropriate to file at this time.²³¹ As explained above, Contention 6 is untimely because Intervenors filed it months after information was available on the additional laminar cracking and after April 16, 2014 for the concrete voiding and rebar cracking issues, and Intervenors have not demonstrated that any materially different information first became available within 60 days prior to filing Contention 6.²³² Thus, for the same reasons that Intervenors have not satisfied the timeliness requirements in the former 10 C.F.R. § 2.309(f)(2)(i)-(iii), discussed above, they have not demonstrated good cause under the former 10 C.F.R. § 2.309(c)(1)(i).²³³

b. Intervenors Have Not Made a Compelling Showing on the Remaining Factors

Since Intervenors have failed to show “good cause” under the former 10 C.F.R. § 2.309(c)(1)(i), the remaining factors must weigh compellingly in their favor in order for Contention 6 to be admitted.²³⁴ They do not.

Contention 6, if admitted, would greatly broaden the scope of the current proceeding with new issues. First, Contention 6 is completely unrelated to the only other proposed contention

and (f)(2)(iii) (submitted in a timely fashion)”), *review denied*, CLI-05-29, 62 NRC 801 (2005), *aff’d sub nom. Env’tl. Law & Policy Ctr. v. NRC*, 470 F.3d 676 (2006).

²³⁰ *Tex. Utils. Elec. Co.* (Comanche Peak Steam Electric Station, Units 1 & 2), CLI-92-12, 36 NRC 62, 70 (1992) (emphasis added).

²³¹ Motion at 23.

²³² In this regard, one licensing board explained that permitting any recent publication “reflecting information widely available previously, to be good cause for filing would virtually wipe out the requirement of cause.” *Cleveland Elec. Illuminating Co.* (Perry Nuclear Power Plant, Units 1 & 2), LBP-82-11, 15 NRC 348, 352 (1982).

²³³ See *Clinton ESP*, LBP-05-19, 62 NRC at 162-63.

²³⁴ *Braidwood*, CLI-86-8, 23 NRC at 244.

pending in this proceeding, which relates to waste confidence issues.²³⁵ Additionally, as discussed above in Section III.B.2, many of the issues raised in the proposed contention relate to issues clearly outside the scope of this license renewal proceeding. Consideration of such issues would inappropriately broaden the current proceeding and could result in corresponding delay. Thus, the most important of the remaining factors, the potential for the broadening of issues or delay in the proceeding (factor seven), weighs heavily and most clearly against Intervenors.

As discussed above, many of the issues raised by Intervenors in Contention 6 relate to issues beyond the scope of this license renewal proceeding. Intervenors have other means to protect their interests on these topics, such as participating in public meetings, submitting comments, or submitting a rulemaking petition or a 10 C.F.R. § 2.206 petition to the NRC. Indeed, Intervenors have availed themselves of these opportunities, participating in public meetings regarding the waste confidence rule and the DSEIS, and submitting comments on those documents.²³⁶ The appropriate forum for these issues is not this license renewal proceeding. This proceeding provides no means to address Intervenors' concerns associated with these issues. As such, factor five also weighs against Contention 6.

Furthermore, Intervenors provide no indication that their participation would contribute to the development of a sound record (factor eight). The Commission has stated that to make a showing on this factor, an intervenor should specify the precise issues it plans to cover, identify its prospective witnesses, and summarize their proposed testimony.²³⁷ Intervenors have failed to satisfy any of those requirements, and have otherwise failed to identify how they would assist in

²³⁵ Licensing Board Order (Suspending Procedural Date Related to Proposed Waste Confidence Contention) (Aug. 8, 2012) (unpublished).

²³⁶ See Summary of December 2 Public meeting in Perrysburg Ohio, to Receive Comments on the Waste Confidence Draft Generic Environmental Impact Statement and Proposed Rule (Dec. 18, 2013), *available at* ADAMS Accession No. ML13352A453; Transcript of Davis-Besse Nuclear Power Station Draft Environmental Impact Statement Public Meeting: Evening Session at 33 (Mar. 25, 2014), *available at* ADAMS Accession No. ML14097A253.

²³⁷ See *Braidwood*, CLI-86-8, 23 NRC at 246.

developing a sound record. Instead, Intervenors vaguely point to their past participation in this proceeding, arguing simply that they have “capably presented evidence and argument of very complicated issues” in the past.²³⁸ Intervenors do not identify any expert who could contribute to the record on either the cracking phenomenon or strategies on aging management. While an expert is not necessary *per se*, given the highly technical nature of Shield Building cracking, an expert certainly would be needed to contribute to the development of a sound record on this topic. For these reasons, Intervenors provide absolutely no basis to suggest they can be expected to contribute to the record.

The other factors in the former 10 C.F.R. § 2.309(c)(1) are less important and do not outweigh Intervenors’ failure to demonstrate good cause or meet factors five, seven, and eight.²³⁹ Having failed to establish good cause and make a compelling showing on these factors, the balance of the untimely factors weighs against Intervenors. Therefore, Intervenors fail to satisfy the former 10 C.F.R. § 2.309(c)(1), and Contention 6 should be denied.

IV. INTERVENORS’ BASELESS ACCUSATIONS SHOULD BE STRICKEN

Intervenors also make a number of baseless accusations about FENOC and the NRC Staff that should be rejected by the Board. These include:

- “FENOC may be incapable of managing Davis-Besse safely and successfully” (Motion at 2);
- the suggestion that FENOC and the NRC “placed profits over safety” in 2002 (*Id.* at 7, 34);
- a pejorative reference to “the NRC Staff’s and FENOC’s ‘sheer denial’” (*Id.* at 10);
- the call to examine “the repression of public information by the NRC Staff and FENOC” (*Id.*);

²³⁸ Motion at 24.

²³⁹ See, e.g., *Diablo Canyon*, CLI-08-1, 67 NRC at 8; *Comanche Peak*, CLI-93-4, 37 NRC at 165. Additionally, factors two through four speak towards standing. Therefore, their applicability is limited here because Intervenors are already parties to this proceeding and are seeking admission of nontimely contentions, rather than nontimely intervention.

- the derogatory characterization of FENOC and the NRC Staff as “malefactors” (*Id.* at 24);
- the unfounded statement that FENOC ordered the “hasty resealing of the shield building” and “the rushed resealing” (*Id.* at 35).

The Board already has rejected and chastened Intervenors for making similar inappropriate statements, and is called upon to do so again.

Specifically, Intervenors’ February 13, 2012 reply for Contention 5 included a series of baseless allegations against FENOC and the Staff, including claims of active concealment and fraudulent conduct.²⁴⁰ FENOC moved to strike these statements as contrary to the standards of practice for NRC adjudicatory proceedings in 10 C.F.R. § 2.314(a), which states that “parties and their representative in proceedings subject to this subpart are expected to conduct themselves with honor, dignity, and decorum as they should before a court of law.”²⁴¹ The Staff supported the motion, stating that Intervenors’ claims are “unsupported” and “meant to inflame rather than address any legitimate argument for contention admissibility.”²⁴² The Board agreed, concluding that “Intervenors’ actions in putting forward baseless and irrelevant allegations of fraud on the part of FENOC and the NRC Staff did not conform with this standard.”²⁴³ Therefore, the Board granted FENOC’s motion to strike, and warned that it “will not hesitate to exercise its powers to maintain decorum as necessary.”²⁴⁴

²⁴⁰ See Intervenors’ Combined Reply in Support of Motion for Admission of Contention No. 5, at 2, 4-5 (Feb. 13, 2012).

²⁴¹ FENOC’s Motion to Strike Portions of Intervenors’ Reply for the Proposed Contention 5 on Shield Building Cracking, at 7-10 (Feb. 23, 2012). FENOC’s Motion to Strike provides illustrative examples demonstrating the very little patience the Commission and licensing boards have had for unsupported accusations or offensive and belittling remarks in pleadings. *Id.* at 9-10. For example, the Commission upheld the *Indian Point* licensing board’s actions to censure, demand an apology from, and subsequently bar an intervenor’s representative for insulting the board. *Id.*

²⁴² NRC Staff’s Answer to FENOC’s Motion to Strike Portions of Intervenors’ Reply for the Proposed Contention 5 on Shield Building Cracking (Mar. 5, 2012).

²⁴³ Order (Granting in Part and Denying in Part Motion to Strike), at 4-5 (Oct. 11, 2012) (unpublished).

²⁴⁴ *Id.* at 5.

Notwithstanding this warning, Intervenors again raise derogatory statements against FENOC and the Staff in Contention 6 that are unnecessary and inappropriate for considering the admissibility of the contention. FENOC respectfully requests that the Board strike these arguments and take other appropriate action to ensure that such conduct does not degrade this proceeding.

V. CONCLUSION

As demonstrated above, Intervenors' attempts to re-litigate their arguments rejected as part of Contention 5 should be rejected because they do not satisfy the Commission's standards for reconsideration.

Additionally, the Board should deny Contention 6 because it fails to satisfy the contention admissibility requirements specified in 10 C.F.R. § 2.309(f)(1). Specifically, Contention 6 challenges issues outside the scope of license renewal, does not show that a genuine dispute exists on a material issue of law or fact, lacks adequate factual support, and raises issues that are not material to the license renewal proceeding.

The Board also should deny Contention 6 because it is untimely under the former 10 C.F.R. § 2.309(f)(2) and (c)(1), as applied to this proceeding by the ISO. Intervenors filed Contention 6 more than 60 days after the public availability of material information. Subsequent documents or events did not present materially-different information and Intervenors have failed to demonstrate good cause under the former 10 C.F.R. § 2.309(c)(1) justifying their late filing.

For these reasons, Contention 6 should be rejected in its entirety.

Respectfully submitted,

Executed in Accord with 10 C.F.R. § 2.304(d)

/s/ Timothy P. Matthews

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*Counsel for FirstEnergy Nuclear Operating
Company*

Dated in Washington, D.C.
this 16th day of May 2014

Attachment 1

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

| | | |
|---|---|----------------------|
| In the Matter of |) | |
| FIRSTENERGY NUCLEAR OPERATING COMPANY |) | Docket No. 50-346-LR |
| (Davis-Besse Nuclear Power Station, Unit 1) |) | May 16, 2014 |
| |) | |

AFFIDAVIT OF JON HOOK

I. PERSONAL QUALIFICATIONS

1. My name is Jon Hook. I am employed by the FirstEnergy Nuclear Operating Company (“FENOC”) as the Manager of Design Engineering at the Davis-Besse Nuclear Power Station, Unit 1 (“Davis-Besse”).

2. I have worked for FENOC for over 26 years and have held a variety of positions all within Design Engineering. Prior to joining the Davis-Besse team, I worked for Bechtel Power Corporation for over 10 years, both in the field and their office. I hold a bachelor’s degree in Civil Engineering from the Michigan Technological University and am a Registered Professional Engineer in the State of Michigan (PE license). I have been the Design Engineering Manager for over 3 years and have been part of the team that addressed the Shield Building laminar cracking issue as well as the recently identified concrete void in the Shield Building. The following statements are based upon my personal knowledge and/or review of documentation.

II. PURPOSE OF THE AFFIDAVIT

3. The purpose of this Affidavit is to support factual statements in the background section of “FENOC’s Answer Opposing Intervenors’ Motion for Admission of Contention No. 6” (“Answer”), dated May 16, 2014. FENOC’s Answer opposes the “Motion for Admission of

Contention No. 6 on Shield Building Concrete Void, Cracking and Broken Rebar Problems” (“Motion”), dated April 21, 2014, filed by Beyond Nuclear, Citizens Environment Alliance of Southwestern Ontario, Don’t Waste Michigan, and the Green Party of Ohio (“Intervenors”). Intervenors’ Motion requests that the Atomic Safety and Licensing Board (“Board”) admit a newly-proposed Contention 6 regarding the Davis-Besse Shield Building.

III. RECENT EVENTS INVOLVING THE DAVIS-BESSE SHIELD BUILDING

A. Concrete Voiding Identified in February 2014

4. Davis-Besse shut down, as scheduled, on February 1, 2014 to replace the plant’s two steam generators. As part of the outage, FENOC created a temporary access opening through the concrete Shield Building.

5. On February 13, 2014, FENOC identified an incomplete concrete fill, or “void,” located along the top of the access opening that occurred during the November 2011 restoration of the previous access opening through the Shield Building. The void was approximately 25 feet in length, ranged from 6 to 12 inches in height at the inside surface of the Shield Building, and ranged from 2 to 24 inches in depth. The location of the maximum height of the void did not correspond with the location of the maximum depth. The void was not discovered by visual inspections until February 2014 as it had been covered by formwork intentionally left in-place following the 2011 concrete fill, to act as a blast shield during the anticipated 2014 hydro-demolition process.

6. FENOC completed an Apparent Cause Evaluation on April 14, 2014, for the concrete void. The apparent cause of the void was the lack of flowable concrete. In addition, the apparent cause of not having earlier identified the full extent of the void (notwithstanding identification of voiding on the exterior of the Shield Building) was weakness in the organization’s questioning attitude and decisionmaking.

7. In addition to successfully repairing the void on March 14, 2014, FENOC completed other corrective actions, including verification of proper concrete placement for the 2014 Shield Building access opening, removal of all associated concrete formwork, and performance of a final walk down of the Shield Building access opening area. FENOC also determined that reasonable assurance exists to conclude that the Shield Building was capable of performing its safety functions with the identified concrete void area present.

B. Rebar Cracking Identified in February 2014

8. During the hydro-demolition process in early February 2014 to create a temporary access opening in the Shield Building for the replacement steam generators, reinforcement steel bar (rebar) unexpectedly broke. The majority of the broken rebar were located in the proximity of mechanical couplers embedded within the concrete, with a few others broken near the concrete and rebar interface at the top of the temporary access opening.

9. FENOC also performed a full Apparent Cause Evaluation for the rebar cracking. FENOC relied upon metallurgical examination to determine the failure mechanism and nondestructive examination to determine the extent of the damage. The analysis concluded that the apparent cause of the broken rebar was the cumulative interaction of changes to the construction environment (*e.g.*, changes in rebar restraint, decrease in temperature) and the method of hydro-demolition that was used to create the temporary access opening in the Shield Building. Accordingly, the analysis showed that the rebar was damaged in February 2014 during the hydro-demolition process and not before.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Executed on May 16, 2014

Executed in Accord with 10 C.F.R. § 2.304(d)

/s/ Jon Hook

Jon Hook PE

Manager of Design Engineering

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Attachment 2



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

November 1, 2013

Mr. Raymond Lieb
Site Vice President
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
5501 North State Route 2, Mail Stop A-DB-3080
Oak Harbor, OH 43449-9760

**SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION – NRC INTEGRATED
INSPECTION REPORT 05000346/2013004**

Dear Mr. Lieb:

On September 30, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Davis-Besse Nuclear Power Station. The enclosed report documents the results of this inspection, which were discussed on October 15, 2013, with you and other members of your staff.

Based on the results of this inspection, two NRC-identified and two self-revealed findings of very low safety significance were identified. Two of the four findings also involved violations of NRC requirements. Additionally, a licensee-identified violation is described in Section 4OA7 of this report. However, because of their very low safety significance, and because the issues were entered into your corrective action program, the NRC is treating the issues as non-cited violations (NCVs) in accordance with Section 2.3.2 of the NRC Enforcement Policy.

If you contest the subject or severity of any finding or NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspectors' Office at the Davis-Besse Nuclear Power Station. In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspectors' Office at the Davis-Besse Nuclear Power Station.

R. Lieb

-2-

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Patricia J. Pelke, Acting Chief
Branch 6
Division of Reactor Projects

Docket No. 50-346
License No. NPF-3

Enclosure: Inspection Report 05000346/2013004
w/Attachment: Supplemental Information

cc: w/encl: Distribution via ListServ™

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-346
License No: NPF-3

Report No: 05000346/2013004

Licensee: FirstEnergy Nuclear Operating Company (FENOC)

Facility: Davis-Besse Nuclear Power Station

Location: Oak Harbor, OH

Dates: July 1, 2013, through September 30, 2013

Inspectors: D. Kimble, Senior Resident Inspector
T. Briley, Resident Inspector
A. Dunlop, Senior Engineering Inspector
J. Neurauter, Senior Engineering Inspector
J. Steffes, Reactor Engineer

Approved by: Patricia J. Pelke, Acting Chief
Branch 6
Division of Reactor Projects

Enclosure

TABLE OF CONTENTS

| | |
|--|----|
| SUMMARY OF FINDINGS | 1 |
| REPORT DETAILS | 4 |
| Summary of Plant Status..... | 4 |
| 1. REACTOR SAFETY | 4 |
| 1R01 Adverse Weather Protection (71111.01) | 4 |
| 1R04 Equipment Alignment (71111.04) | 6 |
| 1R05 Fire Protection (71111.05)..... | 8 |
| 1R11 Licensed Operator Requalification Program (71111.11) | 8 |
| 1R12 Maintenance Effectiveness (71111.12) | 12 |
| 1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)..... | 13 |
| 1R15 Operability Determinations and Functionality Assessments (71111.15) | 14 |
| 1R18 Plant Modifications (71111.18)..... | 15 |
| 1R19 Post-Maintenance Testing (71111.19) | 15 |
| 1R20 Outage Activities (71111.20) | 16 |
| 1R21 Component Design Bases Inspection (71111.21) | 17 |
| 1R22 Surveillance Testing (71111.22)..... | 20 |
| 1EP6 Drill Evaluation (71114.06) | 22 |
| 4. OTHER ACTIVITIES..... | 22 |
| 4OA1 Performance Indicator Verification (71151)..... | 22 |
| 4OA2 Identification and Resolution of Problems (71152)..... | 24 |
| 4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)..... | 29 |
| 4OA6 Management Meetings | 35 |
| 4OA7 Licensee-Identified Violations..... | 35 |
| SUPPLEMENTAL INFORMATION | 1 |
| KEY POINTS OF CONTACT..... | 1 |
| LIST OF ITEMS OPENED, CLOSED AND DISCUSSED | 2 |
| LIST OF DOCUMENTS REVIEWED..... | 3 |
| LIST OF ACRONYMS USED | 13 |

In March 2013, it was identified that the regulatory applicability determination prepared in 2011 failed to identify that a 10 CFR 72.48 screening was necessary and, as a result, no 10 CFR 72.48 screening was prepared. An apparent cause evaluation performed to determine why Sea-Land containers were stored on the dry fuel storage pad without a valid 10 CFR 72.48 screen determined that the transfer, handling, and storage of radioactive material procedure was revised and implemented without ensuring the new training requirements were available. Corrective actions included removing all Sea-Land containers from the dry fuel storage pad and removing the procedure attachments allowing storage of Sea-Land containers on the dry fuel storage pad until further evaluation could be performed to verify acceptability in accordance with approved procedures.

The inspectors reviewed the time periods where Sea-Land containers were stored on the dry fuel storage pad without a valid 10 CFR 72.48 screening evaluation and/or applicable regulatory applicability determination. The inspectors determined the failure to maintain a valid written evaluation documenting the basis for storing Sea-Land containers on the dry fuel storage pad in order to comply with 10 CFR 72.48 constituted a minor violation that is not subject to enforcement action in accordance with the NRC's Enforcement Policy. The regulatory applicability determinations and 10 CFR 72.48 screening evaluations developed previously had determined that neither prior NRC approval nor changes to the Dry Fuel Storage Facility Basis Manual were required. Thus, the issue is of minor significance. Corrective actions had been developed by the licensee and entered into their CAP.

c. Findings

No findings were identified.

.4 Annual Follow-Up Sample for In-Depth Review: Review of Licensee Periodic Core Bore Visual Examinations for Shield Building Concrete Cracking Follow-Up

a. Inspection Scope

During a mid-cycle outage to replace the reactor vessel closure head in late 2011, the licensee identified laminar cracking in the safety-related shield building of the containment system while performing hydrodemolition operations to create a shield building maintenance access opening. Based on an evaluation of the licensee's extent-of-condition and technical analysis of the shield building laminar cracking, the NRC staff concluded that the licensee had provided reasonable assurance that the shield building was capable of performing its safety functions. In order to provide continued long-term confidence, the licensee agreed to several follow-on actions. Chief amongst these follow-on actions was the licensee's commitment to perform an investigation into the root cause of the cracking.

The licensee submitted a root cause report (ADAMS Accession No. ML120600056) to the NRC on February 27, 2012. The licensee identified the direct cause as the integrated effect of moisture content, wind speed, temperature, and duration from a severe winter blizzard that occurred in 1978, and the root cause as the design specification for construction of the shield building not specifying application of an exterior sealant from moisture. The licensee also identified three contributing causes involving specific design features of the building. The root cause report also identified planned corrective actions as well as associated due dates, and acknowledged that the

shield building, although operable, did not conform to the licensing basis in its current condition.

The NRC completed an inspection of the licensee's root cause efforts and planned corrective actions on May 9, 2012 (NRC IR 05000346/2012009; ADAMS Accession No. ML12173A023). The NRC inspection team concluded that the licensee had a sufficient basis for the causes of the shield building laminar cracking related to the environmental factors associated with the 1978 blizzard, the lack of an exterior moisture barrier, and the structural design elements of the shield building. The team did, however, identify minor weaknesses in the licensee's root cause report associated with the level of detail in the documentation provided. These weaknesses did not constitute performance deficiencies or findings, because they did not adversely affect the outcome of the root cause process. The licensee submitted a revised root cause report (ADAMS Accession No. ML12142A053) on May 16, 2012, with changes to address the minor weaknesses identified during the NRC inspection.

As part of the long term monitoring of the shield building laminar cracking condition, the licensee subjected a sample of existing shield building core bores to visual examination as prescribed by licensee procedure EN-DP-01511, "Design Guidelines for Maintenance Rule Evaluation of Structures." One purpose of the core bore visual examinations conducted under this procedure was to identify any crack growth or change in existing crack thickness to determine if the shield building laminar cracking is active (growing) or passive (not growing).

During the course of this in-depth review, the inspectors verified the status of the licensee's core bore visual examinations to date, as well as their evaluations and corrective action documents resulting from shield building laminar cracking not identified by previous visual examinations. In addition, the inspectors reviewed the licensee's plans for follow-on examinations and corrective actions that had been established to verify that the classification, prioritization, focus, and timeliness of these actions were commensurate with the safety significance of the issue. Documents reviewed are listed in the Attachment to this report.

The review of this issue by the inspectors constituted a single annual follow-up inspection sample for in-depth review as defined in IP 71152-05.

b. Observations

For the 2013 examinations, the licensee utilized a boroscope with higher definition that provided improved clarity and mobility over equipment used in previous visual examinations of shield building core borings. On August 26, 2013, the licensee identified a crack in Core Bore S4-650.0-016 that had not been identified by previous periodic visual examinations. The issue was entered into the licensee's CAP as CR 2013-13239 on August 27, 2013. As part of their extent-of-condition investigation, the licensee identified an additional crack in Core Bore S3-650.0-011, which had also not been identified by previous period visual examinations. The licensee documented this issue in their CAP under CR 2013-13458 on August 28, 2013. As a result of the additional core bore cracking identified by further expansion of the 2013 periodic visual examinations, the licensee expanded their extent-of-condition visual examinations during the 2013 campaign to include all existing shield building core borings that had not been refilled with concrete. This extended the sample size to a total of 80 core bore locations.

The inspectors examined shield building Core Bore S4-650.0-016 and Core Bore S3-650.0-011 using the examination boroscope utilized by the licensee during their 2012 visual examination campaign and the current examination boroscope that is being used for the licensee's 2013 campaign. The inspectors concluded that due to the lower clarity and mobility of the 2012 examination boroscope, some very tight existing cracks (approximately 0.005 inches thick) were likely not identified during the 2012 or earlier examinations.

The licensee justified categorizing a portion of the newly identified cracking as previously existing using shield building core bores and/or core bore documentation that show crack indications at corresponding core crack locations. The inspectors reviewed the cores and core indication documents for Core Bore S4-650.0-016 and Core Bore S3-650.0-011 and determined that the new cracking identified in these core bore locations aligned with corresponding known and documented core crack locations. Therefore, the inspectors determined that the recently identified cracking in these core bore locations was likely pre-existing and traceable back to 2011 when the core samples were originally taken.

The inspectors also reviewed the licensee's justification for shield building operability and functionality that had considered the impact of the newly identified laminar cracking. The inspectors concluded that the licensee has, to date, provided reasonable assurance that the shield building has remained capable of performing all of its required design basis functions.

As of the conclusion of the inspection period on September 30, 2013, the licensee had visually examined 72 of the 80 shield building core bore locations using their higher definition boroscope. To date, the licensee has documented the following twelve new crack indications in their CAP:

- Six of the newly identified crack locations correspond to a previously existing known crack in one of the original removed core bore plugs, and are likely the result of the licensee's use of the new higher definition boroscope;
- Four of the newly identified crack locations do not correspond to a previously existing known crack in one of the original removed core bore plugs, and require further analysis and explanation; and
- Two of the newly identified crack locations appear to have grown, and require further analysis and explanation.

The inspectors continue to monitor the licensee's ongoing core bore visual examinations, their evaluation of any newly identified cracking, and any corrective actions resulting from this concern.

c. Findings

No findings were identified.

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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|---|---|----------------------|
| In the Matter of |) | |
| |) | |
| FIRSTENERGY NUCLEAR OPERATING COMPANY |) | Docket No. 50-346-LR |
| |) | |
| (Davis-Besse Nuclear Power Station, Unit 1) |) | May 16, 2014 |
| |) | |

CERTIFICATE OF SERVICE

I hereby certify that on this date a copy of “FENOC’s Answer Opposing Intervenors’ Motion for Admission of Contention No. 6” was submitted through the NRC’s E-filing system.

Signed (electronically) by Stephen J. Burdick

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