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September 14, 2012
L-12-337

10 CFR 54

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT:

Davis-Besse Nuclear Power Station, Unit No. 1
Docket No. 50-346, License Number NPF-3
Review of the Safety Evaluation Report With Open Items Related to the License
Renewal of Davis-Besse Nuclear Power Station (TAC No. ME4640)

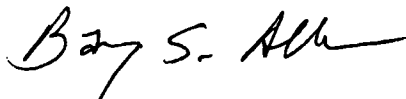
By letter dated August 27, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML102450565), FirstEnergy Nuclear Operating Company (FENOC) submitted an application pursuant to Title 10 of the *Code of Federal Regulations*, Part 54 for renewal of Operating License NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1 (Davis-Besse). By letter dated July 31, 2012 (ML11301A200), the Nuclear Regulatory Commission (NRC) provided the "Safety Evaluation Report with Open Items related to the License Renewal of the Davis-Besse Nuclear Power Station" (SER), and requested that FENOC review the SER, verify its accuracy, and provide comments to the staff within 45 days from the date of the letter.

FENOC has completed its review of the SER. The Enclosure provides FENOC comments on the SER.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Clifford I. Custer, Fleet License Renewal Project Manager, at 724-682-7139.

I declare under penalty of perjury that the foregoing is true and correct. Executed on September 14, 2012.

Sincerely,



Barry S. Allen

A145
NRC

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Enclosure:

Comments Related to Safety Evaluation Report With Open Items Related to the
License Renewal of Davis-Besse Nuclear Power Station

cc: NRC DLR Project Manager
NRC Region III Administrator

cc: w/o Enclosure
NRC DLR Director
NRR DORL Project Manager
NRC Resident Inspector
Utility Radiological Safety Board

Enclosure

Davis-Besse Nuclear Power Station, Unit No. 1 (Davis-Besse)

Letter L-12-337

Comments Related to
Safety Evaluation Report With Open Items Related to the
License Renewal of Davis-Besse Nuclear Power Station

14 pages follow

**FirstEnergy Nuclear Operating Company (FENOC) Comments Related to
 “Safety Evaluation Report With Open Items Related to the
 License Renewal of Davis-Besse Nuclear Power Station” [SER]**

Item No.	SER Section	SER Page	Comment
1	Abbreviations	xix	The abbreviation “MWT” (megawatt thermal) included on the list of Abbreviations conflicts with the abbreviation “MWT” (Makeup Water Treatment, SER pages 2-18 and 2-34), which is not listed as an Abbreviation. Recommend adding “MWT” (Makeup Water Treatment) to the list of Abbreviations.
2	Abbreviations	xix	The abbreviation “OE” (operating experience) is not included in the list of Abbreviations, but is used 4 times on SER page 3-237. Recommend adding “OE” (operating experience) to the list of Abbreviations.
3	Abbreviations	xvi - xxi	The following abbreviations are not used in the SER and should be deleted from the Abbreviations list: DCP EOL IA LRSR MSS MU NEMA NRR NSAS ODSCC RHR SAW
4	Abbreviations	xviii	The abbreviation “IASCC” (irradiation-assisted stress corrosion cracking) is not included in the list of Abbreviations, but is defined on pages 3-203 and 3-211, and is used multiple times in the SER. Recommend adding “IASCC” (irradiation-assisted stress corrosion cracking) to the list of Abbreviations.
5	Abbreviations	xx	The abbreviation “RT” (radiographic testing) is not included in the list of Abbreviations, but is used on SER pages 3-129, 3-130, and others. Recommend adding “RT” (radiographic testing) to the list of Abbreviations.
6	1.5	1-7	Open Item 3.0.3.2.15-1 discussion: The sentence in the middle of the Shield Building Crack Open Item discussion reads, “The applicant is continuing to investigate the root cause of the cracking and an appropriate approach to resolving the issue.” However, the Root Cause investigation was completed and submitted to the NRC on February 27, 2012; the investigation is complete, and the cause is known.

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Item No.	SER Section	SER Page	Comment
7	1.5	1-7	Open Item 4.2-1 discussion: 1st paragraph, last sentence includes the word "Line" in the parenthetical "(e.g., Line 80 welds)", but the word "Line" should read "Linde".
8	1.7	1-8	The 1st sentence under Section 1.7 identifies "seven" proposed license conditions, but it should read "four" proposed license conditions.
9	1.7	1-9	<p>Last paragraph, 2nd sentence: Please reword the fourth license condition, 2nd sentence, to read, "Within 90 days following restart from the outage in which the first core bore is drilled, the applicant will submit a report to the NRC staff summarizing the results of the core bore evaluation and any NDT conducted."</p> <p>Please reword the last sentence in the paragraph to read, "An analysis similar to that performed for the first core bore will be conducted, and a report summarizing the activities shall be submitted to the NRC staff within 90 days following restart from the outage in which the second core bore is drilled."</p>
10	2.1.1	2-1	1st paragraph, 1st sentence: The abbreviation "IPA" defined in the 1st sentence is not included on the abbreviation list on page xviii.
11	2.1.4.2.2	2-16	2nd paragraph, 1st sentence: the date "March 9, 2011" should read "March 9, 2012".
12	2.1.4.3.1	2-20	1st paragraph, 1st sentence: Under the discussion for Anticipated Transients Without Scram, the phrase "and a loss of offsite water" in the 1st line on page 2-20 should read "and a loss of offsite power".
13	2.3.1.4.1	2-38	The Davis-Besse steam generators are not recirculating type heat exchangers. The SGs are a once-through design.
14	2.3.3.14.2	2-53	The first paragraph in the Staff Evaluation refers to things in section 9.5.1 of the USAR that do not exist. The SER may be referring to the Appendix D of the Fire Hazards Analysis Report (FHAR), but it is not clear.
15	2.3.3.14.2	2-54	It refers to a "safety evaluation" as part of the "original licensing basis" that approved this change. This 9/22/92 document was a License Amendment that allowed Davis-Besse to take fire protection out of the Tech Specs and didn't specifically address hydrants or the "original licensing basis." Please clarify the basis for the conclusion.

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Item No.	SER Section	SER Page	Comment
16	2.3.3.15.1	2-57	<p>In the fourth line there is a sentence that states that: "The diesel oil storage tank will contain sufficient fuel to operate the diesel engine at full load for a minimum of 8 hours." The phrase "The diesel oil storage tank will..." should be changed to read "The day tank will...", or "The fire pump diesel day tank will..."</p> <p>The last sentence of this section begins with: "The diesel oil storage tank can supply fuel oil, via a diesel oil transfer pump and a temporary connection through valve..." The phrase "...through valve..." should be changed to read "...through a valve..."</p>
17	2.3.3.21.2	2-65	<p>The second to the last paragraph of this section discussed piping line 1 1/2"-HSC-109. Although the paragraph accurately described what was known in April 2011, that information was changed substantially by the March 9, 2012 RAI Response (L-12-015, ML12094A383) following a review of the verifiable status of equipment and piping that had been abandoned in place. As noted on pages 19 and 20 of Attachment 1 of FENOC letter L-12-015, LR Drawings LR-M037C (ML12094A391) and LR-M037D (ML12094A392) were revised to highlight additional components. Piping line 1 1/2"-HSC-109 was highlighted on both drawings as part of the response to RAI 2.1-3 Abandoned Equipment.</p>
18	2.3.3.30.2	2-73	<p>The second line of the last paragraph of the section includes the phrase "...because the check valves DA206 and DA207 provide an acceptable..." As noted in the first paragraph on the page, valves DA206 and DA207 are ball valves.</p>
19	2.3.3.32.1	2-74	<p>The word "tank" is missing from the third line of the first paragraph of this section. The word "tank" should be added between the phrases "...cooling water..." and "...drains by gravity..."</p>

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Item No.	SER Section	SER Page	Comment
20	2.3.4.1.2	2-76	<p>1st sentence states: "In its response dated April 15, 2011, the applicant stated that components beyond the highlighting at Location H-9, are located in the turbine building, are not within a space containing 10 CFR54.4(a)(1) components, and are, therefore, not within the scope of license renewal." FENOCs response to RAI 2.3.4.1-01 in the 4/15/2011 letter did not state that there are no (a)(1) components in the turbine building - it stated that the components beyond the highlighting is not in scope for (a)(2) NSAS considerations. As described in FENOC response to RAI 2.1-1 (FENOC Letter L-11-131 dated 4-29-2011) and the staff's evaluation in SER Section 2.1.4.2.2, there are safety related components located in the turbine building.</p>
21	2.4.7.1	2-85	<p>The second sentence in the first paragraph should be deleted. The remaining portions of the Personnel Shop Facility were added into the scope of license renewal by the September 30, 2011 annual update letter L-11-257 (ML11276A078). See SER page 2-91, Section 2.4.15.</p>
22	2.4.12.1	2-89	<p>The third bullet from the bottom of the page is for the description of the Fire Water Storage tank foundation. As written, the second sentence states that the "subbase" is the "primary water supply for the fire suppression system". The tank, not the subbase, is the primary water supply for the fire suppression system.</p>
23	2.4.15.1	2-92	<p>This comment describes a situation that could lead to confusion later. When the Containment Access Facility (CAF) and the Personnel Shop Facility (PSF) were added in the 2011 annual update, they were both added for the same reason: II over I, with no in-scope SSCs inside either building. The description for each building includes the following: "the evaluation boundary for [or "of"] the [CAF or PSF] includes only the major structural building systems required for overall structural integrity". The SER description includes the following for the CAF: "the evaluation boundary for the containment access facility includes only the major structural building systems required for overall structural integrity." The SER description for the PSF does not include any wording that addresses the evaluation boundary for the PSF.</p>

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Item No.	SER Section	SER Page	Comment
24	Section 3	3-1	2nd paragraph: the sentence identifies 42 AMPs, but Davis-Besse has 43 License Renewal aging management programs with the addition of the Shield Building Monitoring Program, submitted by FENOC letter dated April 5, 2012 (ML12097A520). Table 3.0-1 also needs to be updated to include the Shield Building Monitoring Program as LRA Section A.1.43 / B.2.43.
25	3.0	3-2	3rd paragraph, 1st sentence: The sentence reads, "during the weeks of February 14 and February 25, 2011," but should read "during the weeks of February 14 and February 21, 2011".
26	3.0.3.1.10	3-43	The last paragraph states "In its supplemental response, the applicant revised Commitment No. 36 to include visual inspection of the accessible surfaces of the containment exterior moisture barrier during each RFO in accordance with the ASME Code requirements." That wording is not consistent with the content of Commitment No. 36 that is included in the SER on page A-18. The SER wording on page A-18 does not include "in accordance with the ASME Code requirements." The SER wording on page A-18 is consistent with the wording in the LRA as amended by the FENOC letter dated November 23, 2011 (ML11335A223) and the January 19, 2012 NRC Summary of Telephone Conference Call Held on November 14, 2011 (ML11364A017).
27	3.0.3.1.11	3-48	SER text indicates that DB has not identified any non-metallic vibration isolation elements. In the original LRA Table 3.5.1 (page 3.5-53), the following discussion was included for Item 3.5.1-41: "Davis-Besse has not identified non-metallic vibration isolator elements." That discussion was later determined to be incorrect and was changed by letter L-11-292 (ML11285A064). The LRA Table 3.5.1 discussion, as amended by the letter, is now: "Consistent with NUREG-1801. The Structures Monitoring Program is credited for aging management of these effects and mechanisms. Further evaluation is documented in Section 3.5.2.2.2.6." This change was not included in the SER and SER Table 3.5-1 says, "Not applicable (See SER Section 3.5.2.2.2.6.3)". There is no SER Section 3.5.2.2.2.6.3, but on page 3-519 for "(3)" near the top of the page, is the incorrect phrase: "because there are no vibration isolation elements within the scope of license renewal."
28	3.0.3.1.16	3-58	1st paragraph, 2nd sentence: The abbreviation "Zn" is used in the sentence but is not included in the Abbreviation List.

Item No.	SER Section	SER Page	Comment
29	3.0.3.1.17	3-62	1st sentence of 1st paragraph in this section has a typo - "XI.M235" should be "XI.M35" for the Small Bore Class 1 Piping Program.
30	3.0.3.1.17	3-64	In the SER statement, "The applicant indicated that there are 179 Class 1 small-bore full penetration welds and 437 Class 1 small-bore socket welds", the population numbers "179" and "437" are approximations. Also, the populations consist of 1" to less than 4" small bore piping.
31	3.0.3.1.18	3-66	3.0.3.1.18 contains an error. In the 2nd paragraph on the page, second sentence it references 'NEI 07-06, Revision 3'. This should be 'NEI 97-06, Revision 3'.
32	3.0.3.2.8	3-115	There is an error in the first paragraph of the description of <i>Enhancement 1</i> . The SER paragraph describes an LRA enhancement to "Parameters Monitored or Inspected, Detection of Aging Effects" from LRA Section B.2.18 on LRA page B-82. In the SER, the third and fourth lines include the phrase "... perform periodic ultrasonic testing for wall thickness of representative above-groundwater suppression piping..." The word "above-groundwater" is incorrect. There should be a space between "above-ground" and "water" so that the phrase in the SER would be "...perform periodic ultrasonic testing for wall thickness of representative above-ground water suppression piping...". Plant finished grade is at about elevation 584' and groundwater elevation is normally at about 575'.
33	3.0.3.2.15	3-147	The eighth line of the fourth paragraph includes the phrase: "...ECCS pump room and ECCS cooler,". The word "room" should be added after the word "cooler" for consistency with similar wording on SER page 3-154. Program basis document LRPD-04, OE, page 83 CRs 03-10850 and 04-01281, and page 190 CR 03-06430 (CR 02-03913).
34	3.0.3.2.15	3-151	Typo in 7th bullet at the top of the page, "ASB34625" should be "ABS34625" (refer to LRA Figure 2.5-1).
35	3.0.3.2.15	3-156	The second paragraph on the page states that refueling canal "leakage only occurs during RFOs (approximately 1 month out of 18 months)". Davis-Besse is on a 24-month refueling cycle.

Item No.	SER Section	SER Page	Comment
36	3.0.3.2.15	3-152	The staff finding for <i>Enhancement 5</i> notes that the collection and review of raw water chemistry data “will address GALL Report recommendation for plants having aggressive groundwater/soil relative to periodic monitoring of below grade water chemistry”. At Davis-Besse the groundwater is aggressive and the raw water (Lake Erie) is non-aggressive. The collection and review of raw water to see if it has become aggressive does not pertain to monitoring of groundwater. GALL Report Rev. 1 had no recommendation for monitoring aggressive groundwater, but had a recommendation for monitoring non-aggressive groundwater. See SER Table 3.5-1 page 3-488, first row, “AMP in GALL Report” column. GALL Report Rev. 2 changed the recommendation for periodic monitoring of below grade water chemistry, regardless of whether it was aggressive or non-aggressive. No RAI was issued on the subject, so no change was made to the LRA, which remains consistent with GALL Rev. 1 and SER Table 3.5-1. The “Technical Basis for Change” in NUREG-1950 (page II-451) suggests no reason for monitoring aggressive groundwater. As noted in the SER discussion of Enhancement 6 on the same SER page, concrete exposed to groundwater will be examined.
37	3.0.3.2.15 and 3.0.3.2.16	3-147 and 3-161	On page 3-147, in the third line of the fourth paragraph, maximum chlorides are stated to be 2,780 ppm. The same ppm concentration is also stated in the third line from the bottom page of 3-161. The actual maximum concentration is 2,870 ppm (LRA page 3.5-19).
38	3.0.3.2.15 and 3.0.3.2.16	3-150 and 3-165	The last two lines of the first paragraph on page 3-150 include the phrase “...design basis codes and standards such as ACI 349.3R.” The same phrase is also in the last two lines on page 3-165. ACI 349.3R is not a design basis document for Davis-Besse. Also, as noted in the April 5, 2002, NRC letter to NEI (ML020980194, page 2), ACI 349.3R is a report, not a code or a standard.
39	3.0.3.3.3	3-180	Scope of Program section, paragraph 1, fifth sentence: RAI 3.3.2.2-2 should be RAI 3.3.2.2.5-2.
40	3.0.3.3.3	3-180	1st paragraph under Scope of Program, the following sentence has a typo: “In its supplemental response to RAI 3.3.2.2.-2 dated September 16, 2011, the applicant included elastomers as part of the scope of program section and identified hardening and loss of strength as an aging effect for elastomeric components in the “acceptance criteria” of the response.” RAI 3.3.2.2.-2 should be RAI 3.3.2.2.5-2

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Item No.	SER Section	SER Page	Comment
41	3.0.3.3.4	3-195	Near the bottom of the page, the paragraph titled " <u>Acceptance Criteria</u> ", begins with the sentence: "LRA Section B.2.25 states that the acceptance criteria guidelines for potential corrective actions are based on continuous observations of increased leak rates on a particular zone valve." There is no such statement in LRA Section B.2.25. As described in LRA Section B.2.25, observations of zone valve leakages are periodic.
42	3.0.3.3.6	3-208	First sentence on page indicates LRA was submitted on April 27, 2010. Davis-Besse submitted LRA on August 27, 2010.
43	3.0.3.3.6	3-210	Last paragraph: The SER states that in response to the January 24, 2011 telecon, FENOC provided a supplemental response to RAI B.2.32-1 by letter dated March 9, 2011. However, that letter states that the information is a supplemental response to RAI 3.1.2.2-2. (Note the telecon record mentions that the NRC is to provide the RAI number to which the supplemental response is to be tied.) The B.2.33-1 number is also cited in the first paragraph of page 3-211.
44	3.0.3.3.7	3-234	Conclusion section: 10CFR54.21(a)(2) should be 10CFR54.21(a)(3)
45	3.1.2.2.13	3-280	LRA Section 3.1.2.2.13 was revised by Letter L-11-292, dated 10/7/2011, to add the following: "Cracking due to SCC (including PWSCC) for small-bore piping nickel-alloy welds is also managed by the Small Bore Class 1 Piping Inspection Program." Neither SER Section 3.1.2.2.13 nor SER Table 3.1-1, item 3.1.1-31, addressed this addition.
46	3.1.2.2.15	3-281	LRA Section 3.1.2.2.15 was revised by Letter L-11-218, dated 7/22/2011, to indicate that void swelling is not identified as an aging effect requiring management for these components. Neither SER Section 3.1.2.2.15 nor SER Table 3.1-1, item 3.1.1-33, addressed this change.
47	3.1.2.2.16	3-288	In the conclusion statement for SER Section 3.1.2.2.16, the statement, "pending resolution of OI 3.1.2.2.16-1" should be deleted; this open item was closed and is not listed in SER Section 1.5, "Summary of Open Items."
48	Table 3.2-1	3-296	Item 3.2.1-8: By Letter L-11-153, dated 5/24/2011, the AMP was changed from One-Time Inspection to Inspection of Internal Surfaces in Miscellaneous Piping and Ducting. The associated text in SER Section 3.2.2.2.3(6) is correct.
49	Table 3.2-1	3-297	Item 3.2.1-17, Staff evaluation column: Should be changed to "Not applicable to Davis-Besse." The associated text in SER Section 3.2.2.2.9 is correct.

Item No.	SER Section	SER Page	Comment
50	Table 3.2-1	3-299	Item 3.2.1-28: By Letter L-11-153, dated 5/24/2011, the One-Time Inspection AMP was no longer credited for this item. The subject aging effect is managed by the Closed Cooling Water Chemistry AMP. The associated text in SER Section 3.2.2.1.3 is correct.
51	Table 3.2-1	3-299	Item 3.2.1-29: By Letter L-11-153, dated 5/24/2011, the One-Time Inspection AMP was no longer credited for this item. The subject aging effect is managed by the Closed Cooling Water Chemistry AMP. The associated text in SER Section 3.2.2.1.4 is correct.
52	Table 3.2-1	3-299	Item 3.2.1-30: By Letter L-11-153, dated 5/24/2011, the One-Time Inspection AMP was no longer credited for this item. The subject aging effect is managed by the Closed Cooling Water Chemistry AMP. The associated text in SER Section 3.2.2.1.5 is correct.
53	3.2.2, 3.3.2 and 3.5.2	3-305, 3-353 and 3-495	Copper alloy is discussed in the first bulleted paragraph on page 3-305. The fourth line includes the parenthetical phrase "less or equal to 15 percent Zn and less or equal to 8 percent Al". The word "than" is missing in two places. The phrase should be "less than or equal to 15 percent Zn and less than or equal to 8 percent Al". The same error is located at about the same place on pages 3-353 and 3-495.
54	Table 3.3-1, Item 3.3.1-6	3-336	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "One-Time Inspection" for this item. That should be replaced with "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program", as described in SER Section 3.3.2.2.3(3) on SER page 3-359.
55	Table 3.3-1, Item 3.3.1-11	3-337	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has only "External Surfaces Monitoring" listed for this item. The "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program" should be added, as described in SER Section 3.3.2.2.5(1) on SER page 3-390.
56	Table 3.3-1, Item 3.3.1-12	3-337	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "One-Time Inspection" for this item. That should be replaced with "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program", as described in SER Section 3.3.2.2.5(2) on SER pages 3-391 and 3-392.

Item No.	SER Section	SER Page	Comment
57	Table 3.3-1, Item 3.3.1-18	3-338	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "One-Time Inspection" for this item. That should be replaced with "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program", as described in SER Section 3.3.2.2.7(3) on SER pages 3-395 and 3-396.
58	Table 3.3-1, Item 3.3.1-25	3-339	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "One-Time Inspection" and two other AMP for this item. "One-Time Inspection" should be replaced with "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program", as described in SER Section 3.3.2.2.10(3) on SER page 3-402.
59	Table 3.3-1, Item 3.3.1-27	3-340	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "One-Time Inspection" and two other AMP for this item. "One-Time Inspection" should be replaced with "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program", as described in SER Section 3.3.2.2.10(5) on SER pages 3-405 and 3-406.
60	Table 3.3-1, Item 3.3.1-28	3-340	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "One-Time Inspection" for this item. That should be replaced with "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program", as described in SER Section 3.3.2.2.10(6) on SER pages 3-406 and 3-407.
61	Table 3.3-1, Item 3.3.1-46	3-343	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "Closed Cooling Water Chemistry and One-Time Inspection" for this item. "One-Time Inspection" should be deleted for consistency with the description in SER Section 3.3.2.1.3.
62	Table 3.3-1, Item 3.3.1-47	3-343	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "Closed Cooling Water Chemistry and One-Time Inspection" for this item. "One-Time Inspection" should be deleted for consistency with the description in SER Section 3.3.2.1.4.
63	Table 3.3-1, Item 3.3.1-48	3-343	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "Closed Cooling Water Chemistry and One-Time Inspection" for this item. "One-Time Inspection" should be replaced with "Selective Leaching Inspection" for consistency with the description in SER Section 3.3.2.1.5.
64	Table 3.3-1, Item 3.3.1-50	3-343	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "Closed Cooling Water Chemistry and One-Time Inspection" for this item. "One-Time Inspection" should be deleted for consistency with the description in SER Section 3.3.2.1.6.

Item No.	SER Section	SER Page	Comment
65	Table 3.3-1, Item 3.3.1-51	3-344	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "Closed Cooling Water Chemistry and One-Time Inspection" for this item. "One-Time Inspection" should be deleted for consistency with the description in SER Section 3.3.2.1.7.
66	Table 3.3-1, Item 3.3.1-52	3-344	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "Closed Cooling Water Chemistry and One-Time Inspection" for this item. "One-Time Inspection" should be deleted for consistency with the description in SER Section 3.3.2.1.8.
67	Table 3.3-1, Item 3.3.1-53	3-344	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "One-Time Inspection" for this item. "One-Time Inspection" should be replaced with "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program", as described in SER Section 3.3.2.1.9.
68	Table 3.3-1, Item 3.3.1-54	3-344	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "PWR Water Chemistry, One-Time Inspection" and one other AMP for this item. "One-Time Inspection" should be replaced with the "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program" and "PWR Water Chemistry" should be deleted, as described in SER Section 3.3.2.1.10.
69	Table 3.3-1, Item 3.3.1-61	3-345	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "External Surfaces Monitoring" for this item. The "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program" should be added, as described in SER Section 3.3.2.1.11.
70	Table 3.3-1, Item 3.3.1-71	3-347	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "One-Time Inspection" for this item. "One-Time Inspection" should be replaced with "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program", as described in SER Section 3.3.2.1.15.
71	Table 3.3-1, Item 3.3.1-72	3-347	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "PWR Water Chemistry and One-Time Inspection" for this item. "PWR Water Chemistry and One-Time Inspection" should be replaced with the "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Program", as described in SER Section 3.3.2.1.16.

Item No.	SER Section	SER Page	Comment
72	Table 3.3-1, Item 3.3.1-75	3-348	The "AMP in LRA, supplements, or amendments" column of SER Table 3.3-1 has "One-Time Inspection" for this item. "One-Time Inspection" should be replaced with "Collection, Drainage, and Treatment Components Inspection", as described in SER Section 3.3.2.1.17, page 3-504.
73	3.3.2.1.19	3-376	There are words missing from the first line on the page. The words "stainless" and "and copper-alloy" are missing. The first line should state "...Program proposed to manage the aging of stainless steel and copper-alloy piping, piping components..."
74	3.3.2.1.20	3-376	The word "stainless" is missing from the second paragraph of Section 3.3.2.1.20. The fourth line in the paragraph should state "...Program proposes to manage the aging of stainless steel piping, piping components..."
75	3.3.2.1.21	3-377	The word "steel" should be replaced with "copper-alloy" in the second paragraph of Section 3.3.2.1.21. The fourth line in the paragraph should state "...Program proposes to manage the aging of copper-alloy piping, piping components..."
76	3.3.2.3.10	3-425	The word "relief" is missing from the second line of this SER section. The second line should begin with the phrase "...the containment vacuum relief system component groups."
77	Table 3.4-1	3-456	4th (Item 3.4.1-38) and 5th (Item 3.4.1-39) rows: The parenthetical text in the row for Item 3.4.1-38, "Staff evaluation" column, which reads "(see SER Sections 3.4.2.1.4 and 3.4.2.2.6)" does not apply to Item 3.4.1-38. Rather, the parenthetical text "(see SER Sections 3.4.2.1.4 and 3.4.2.2.6)" should be added to the "Staff evaluation" column for Item 3.4.1-39, because that Item No. is addressed in both SER Sections listed in the parenthetical text.
78	Table 3.5-1, Item 3.5.1-33	3-488	The "AMP in LRA, supplements, or amendments" column of SER Table 3.5-1 has "A plant-specific AMP" for this item. That should be replaced with "Structures Monitoring Program (B.2.39)" as stated in the unnumbered section of the SER (page 3-513) that discusses this item. Based on the same SER discussion, the "Staff evaluation" column should have "Not applicable" replaced with "Consistent with GALL Report."
79	Table 3.5-1, Item 3.5.1-41	3-490	The "AMP in LRA, supplements, or amendments" column of SER Table 3.5-1 has "Not applicable" for this item. That should be replaced with "Structures Monitoring Program" as stated in the LRA and Letter L-11-292.

Item No.	SER Section	SER Page	Comment
80	3.5.2.2.1	3-500	The sentence at the first bullet in this section states: "chlorides less than 500 ppm". Chlorides are greater than 500 ppm.
81	3.5.2.2.2	3-511	The sentence at the bullet at the bottom of this page states: "chlorides less than 500 ppm". Chlorides are greater than 500 ppm.
82	3.5.2.2.2	3-512	The ninth and tenth lines of the second paragraph include the phrase: "...the applicant committed to monitoring the groundwater for aggressiveness..." The groundwater is known to be aggressive, so no commitment was made to monitor the groundwater for aggressiveness. That is consistent with GALL Rev. 1 and SER Table 3.5-1, page 3-488. As noted in the same SER paragraph, the Structures Monitoring Program includes examination of concrete exposed to the aggressive groundwater.
83	3.5.2.2.2	3-514	The first bulleted sentence near the bottom of the page states that: "The below-grade environment is aggressive (i.e., sulfates less than 1,500 ppm)." At Davis-Besse groundwater has sulfates greater than 1,500 ppm.
84	3.5.2.3.2	3-523	In the 8th paragraph it is stated "The staff's evaluations of the applicant's Boral® Monitoring and PWR Water Chemistry Programs are documented in SER Sections 3.0.3.3.2 and 3.0.3.1.15, respectively. The staff finds the applicant's proposal to manage aging using the Boral® Monitoring Program acceptable because the program will be implemented prior to the period of extended operation, visual inspections will be conducted to determine the extent of loss of material , and in-situ testing will be used to determine changes in physical properties of the Boral®. Furthermore, the PWR Chemistry Program is a mitigation program that monitors and controls detrimental contaminants that can lead to loss of material, cracking, and reduction in heat transfer. This meets the recommendations provided in the GALL Report, item VII.A2-5." Visual inspections were at one time on the table; however, FENOC revised its response by letter dated May 5, 2011 (ML11131A073) to eliminate visual inspections.
85	4.1.1	4-1	In the SER, LRA Table 4.1-1 is characterized as "the applicant listed the following TLAAs," however, a list of TLAA categories is provided. Please note that "concrete containment tendon prestress" and "containment fatigue" were identified as "not TLAA." Suggested text change is as follows: "In LRA Table 4.1-1, "Time-Limited Aging Analyses," the applicant listed the following TLAA categories:"

Item No.	SER Section	SER Page	Comment
86	Table A-1	A-11 & A-12	<p>Row No. 20: In FENOC Letter L-11-317 (ML11298A097) (on pg. 41 of 49 of the Enclosure to the letter), FENOC stated the following commitments in LRA Table A-1, Commitment # 20:</p> <ul style="list-style-type: none"> • Monitor elastomeric vibration isolators and structural sealants for cracking, loss of material and hardening. • Supplement visual inspection of elastomeric vibration isolation elements by feel to detect hardening if the vibration isolation function is suspect. <p>These 2 bulleted items (commitments) need to be added to Table A-1 of the SER prior to the last commitment in Row 20 that begins with "Identify that:".</p>
87	Table A-1	A-12	<p>Commitment 23 in SER Table A-1 is missing FENOC Letter L-11-334 in the "Source" column. This FENOC letter is cited by reference in the amendment to the LRA contained in L-11-334 (on page 14 of 16 of Enclosure A to the FENOC letter)</p>
88	Table A-1	A-13	<p>Commitment number 25 is missing text as follows: "Should the steam generators be replaced in the future with a design such that the tubes, tubesheet cladding and tube-to-tubesheet welds are fabricated of Alloy 690 material, only the PWR Water Chemistry Program will manage cracking due to PWSCC of the tube-to-tubesheet welds and the gross visual inspection will no longer be required." See Letter L-12-001 dated 1/13/2012</p>
89	Table A-1	A-20	<p>In Commitment #46, the reference to "Response to NRC RAI B.2.16-2 from NRC Letter dated December 27, 2011" is incorrect. It should be "Response to NRC RAI B.2.39-13 from NRC Letter dated December 27, 2011" as shown in FENOC Letter L-12-028 (on page 8 of 15 of the Enclosure to the letter).</p> <p>Note that the subject matter of RAI B.2.16-2 is the Fatigue Monitoring Program (refer the response to this RAI in FENOC Letter L-11-166) while subject matter for LR Commitment 46 is the Shield Building Monitoring Program.</p>