FENOC
FirstEnergy Nuclear Operating Company

Davis-Besse Nuclear Power Station
5501 N. State Route 2
Oak Harbor, Ohio 43449

April 29, 2011
L-11-131

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
Reply to Request for Additional Information for the Review of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application, Section 2.1 (TAC No. ME4640), License Renewal Application Amendment No. 5, and Revised License Renewal Application Boundary Drawings

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 (DBNPS), Unit Number 1. By letter dated March 30, 2011 (ADAMS Accession No. ML110820624), the Nuclear Regulatory Commission (NRC) requested additional information to complete its review of the License Renewal Application (LRA).

The Attachment provides the FENOC reply to the NRC request for additional information. The NRC request is shown in bold text followed by the FENOC response. Enclosure A provides Amendment No. 5 to the DBNPS LRA. Enclosure B provides revised LRA boundary drawings.

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.

A145
NRR

I declare under penalty of perjury that the foregoing is true and correct. Executed on April 29, 2011.

Sincerely,

Kendall W. Byrd
Director, Site Performance Improvement

Attachment:
Reply to Request for Additional Information for the Review of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application, Section 2.1

Enclosures:
A. Amendment No. 5 to the DBNPS License Renewal Application
B. Revised License Renewal Application Boundary Drawings

cc: NRC DLR Project Manager
NRC Region III Administrator

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

Section 2.1

Question RAI 2.1-1

10 CFR 54.4(a)(2) states: (a) Plant systems, structures and components within the scope of this part are (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the [safety-related] functions identified in (a)(1)(i), (ii), or (iii) of this section.

During the scoping and screening methodology audit, performed on-site January 24-28, 2011, the staff reviewed the License Renewal Application (LRA), the 10 CFR 54.4(a)(2) implementing documents and license renewal drawings, and also performed plant walkdowns. The staff determined that the applicant had identified safety-related components located in the turbine building. The applicant also confirmed that there are nonsafety-related structures, systems, and components (SSCs) in the vicinity of the safety-related components. The applicant had concluded that the nonsafety-related SSCs were not required to be included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2).

The staff requests that the applicant provide a description and the results of the evaluation that formed the basis for concluding that the nonsafety related SSCs, located within the vicinity of safety-related SSCs within the turbine building, do not meet the criteria for inclusion within the scope of license renewal in accordance with 10 CFR 54.4(a)(2) for spatial interaction. During the review of this issue, consider extent of condition, and indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

RESPONSE RAI 2.1-1

Safety-related components located in the turbine building were identified through review of plant drawings, review of the SAP database (Davis-Besse Configuration Database), and plant walkdowns.

In accordance with NEI 95-10, Appendix F, Section 5.2.3.1, some safety-related components are fail-safe by design. Fail-safe components are components whose failure (through interaction with the failed nonsafety-related SSC) cannot prevent the accomplishment of the safety-related intended function. Fail-safe components may not be vulnerable to spatial interaction because their function may be accomplished as a result of their failure. As long as the nonsafety-related SSC failure causes the safety-related SSC to attain its fail-safe state, the nonsafety-related SSCs would not be considered in scope for 10 CFR 54.4(a)(2). This approach is applied to the following systems and components:

- The safety-related (Q) components of the Startup Feedwater Pump and Auxiliaries System that are located in the Turbine Building are the position controllers for control valves DB-FV6459 and DB-FV6460. As shown on license renewal drawing LR-M006D, these control valves fail open and the valve position controller is energized to close the valve, so the associated control valve opens on a loss of signal from the controller. Therefore, because the controllers are considered to be fail-safe components, the surrounding nonsafety-related systems and components are not in scope for 10 CFR 54.4(a)(2).

- The safety-related (Q) components of the Anticipatory Reactor Trip System (ARTS) are the pressure switches. The pressure switches (1) monitor the hydraulic oil pressure at the fast acting solenoids for the turbine generator main stop valves, and (2) monitor the oil pressure of the feedwater pump turbine high pressure stop valve. In either case, a low oil pressure (below setpoint) will result in a reactor trip.

  The ARTS is a fail-safe, de-energize-to-trip system. Therefore, if the power supply is lost to a logic system, that logic system will trip. The ARTS actuating equipment is designed to allow single failure without preventing the system from performing the required operation.

  Therefore, because these pressure switches are considered to be fail-safe components, the surrounding nonsafety-related systems and components are not in scope for 10 CFR 54.4(a)(2).

- The safety-related (Q) components of the Main Feedwater Pump Turbine Oil System are drain valves associated with the ARTS pressure switches. A failure of the pressure boundary for these drain valves will result in a decrease in oil header pressure, as sensed by the ARTS pressure switches; if the pressure decreases below the setpoint, then the ARTS will perform its intended function. Therefore, because these drain valves are considered to be fail-safe components, the

surrounding nonsafety-related systems and components are not in scope for 10 CFR 54.4(a)(2).

The following components will be protected in such a way as to prevent spatial interaction:

- The safety-related (Q) radiation monitoring components that are located in the Turbine Building are associated with station vent normal and accident range monitors DB-RE4598AA, AB, BA, and BB. They are located on the turbine operating floor near the north wall between column lines D and E.

  FENOC has made a commitment for license renewal, item number 22 of Table A-1 of the license renewal application (LRA), to enclose, or otherwise provide protection for, the station vent radiation monitors such that leakage and spray from surrounding piping systems does not cause age-related degradation which would prevent them from performing their intended functions. Therefore, the surrounding nonsafety-related systems and components are not in scope for 10 CFR 54.4(a)(2).

A review for the extent of condition determined that the scoping methodology did not preclude the identification of any SSCs that should have been within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). No additional scoping evaluations were required to address 10 CFR 54.4(a)(2) criteria, and no additional SSCs were included within the scope of license renewal.

Question RAI 2.1-2

10 CFR 54.4(a)(2) states: (a) Plant systems, structures and components within the scope of this part are (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the [safety-related] functions identified in (a)(1)(i), (ii), or (iii) of this section.

During the scoping and screening methodology audit, performed on-site January 24-28, 2011, the staff reviewed the LRA, the 10 CFR 54.4(a)(2) implementing documents and license renewal drawings, and also performed plant walkdowns. The staff determined through a review of license renewal drawings and discussion with the applicant that for certain systems, nonsafety-related pipe attached to safety-related pipe, had not been included within the scope of license renewal.

The staff requests that the applicant provide details of the analysis performed and any conclusions related to nonsafety-related pipe, attached to safety-related pipe, for inclusion within the scope of license renewal up to and including a seismic anchor or equivalent, in accordance with 10 CFR 54.4(a)(2). During the review of this issue, consider extent of condition, and indicate if the review concludes that use of the scoping methodology precluded the identification of

SSCs which should have included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

RESPONSE RAI 2.1-2

In-scope nonsafety-related mechanical components that are directly connected to safety-related piping and piping components are highlighted on the license renewal boundary drawings beyond the safety-related (Q) boundary to the limits of the seismic class I analysis boundary, designated as "S/I" on the Piping and Instrument Diagrams (P&IDs). The S/I boundary is delineated on the hanger location isometric drawings at the first seismic restraint or equivalent seismic restraint, which corresponds to the S/I boundary identified on the P&ID drawing. This boundary is supported by the pipe stress analysis performed for the piping. The S/I boundary is generally a six-way physical anchor point, but may be a series of pipe restraints or equipment nozzles which provide an equivalent terminal restraint (i.e., an equivalent anchor) for the piping.

However, as identified during the scoping and screening methodology audit, the locations of the S/I boundaries were incomplete on plant P&IDs. Several Condition Reports (CRs) were written and entered into the FENOC Corrective Action Program to identify drawings where S/I boundaries were not properly identified on the P&IDs. As part of the corrective actions, an extent of condition review was performed to identify the scope of the issue. Calculations were performed as necessary to confirm seismic class I analysis boundaries, and the P&IDs were updated to include the S/I boundaries.

As a result of the updated P&ID drawings, the affected license renewal boundary drawings are revised to include license renewal notes to identify the location of updated S/I boundaries. Based on the updated S/I boundaries, highlighting is added to or removed from the license renewal drawings to bring additional components within the scope of license renewal or remove components from the scope of license renewal.

The following license renewal boundary drawings are revised to update S/I boundaries:

LR-M003A	LR-M006D	LR-M007A
LR-M010C	LR-M010D	LR-M015A
LR-M015D	LR-M015F	LR-M017B
LR-M019	LR-M022A	LR-M029B
LR-M029C	LR-M029D	LR-M030A
LR-M031B	LR-M031C	LR-M033B

LR-M033C	LR-M035	LR-M036A
LR-M036B	LR-M036C	LR-M037D
LR-M038B	LR-M038C	LR-M039A
LR-M040A	LR-M040D	LR-M041B
LR-M041C	LR-M046	LR-M900A

A number of the drawings from the above list had no highlighting changes when the S/I boundary updates were completed. The following table lists only those drawings where license renewal scoping boundary highlighting is added or removed due to the updated P&ID S/I boundaries. The table identifies the affected drawing number, plant system, location of new highlighting, component types in the new highlighting, whether the LRA is impacted, and a summary of the change.

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M003A	Main Steam	A/2, C/1, D/3, E/3,	tubing, valve body	No	Control air supply components not subject to AMR as described in LRA Section 2.3.4.4
	Main Steam	G/9	n/a	No	No component types, materials, or environments were removed from the Main Steam System scoping results as a result of removing this highlighting.
LR-M007A	Reactor Coolant Vent and Drain	A/1, A/14	bolting, piping, valve body	No	LRA Table 3.3.2-24 rows 5, 8, 37, 41, 42, 86, 90-92, 96, and 97 address the internal and external environments of subject bolting and piping, and valve body.
	Nitrogen Gas	A/3, A12	bolting, piping, valve body	Yes	LRA Table 3.3.2-22 rows 6-8 and 15-17 address the internal and external environments of subject bolting and piping. **LRA Table 3.3.2-22 is revised to add rows for subject valve body**
	Main Steam	A/5-7, A/8-10	bolting, piping	No	LRA Table 3.4.2-4 rows 10, 13, 14, 62, 69, and 70 address the internal and external environments of subject bolting and piping.
	Main Steam	C/7, C/9	bolting, piping	No	LRA Table 3.4.2-4 rows 10, 13, 14, 62, 69, and 70 address the internal and external environments of subject bolting and piping.

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M007A	Main Steam	C-D/6, C-D/9	position controller[1], pressure converter[1], tubing	Yes	**LRA Table 3.4.2-4 is revised to add rows for subject tubing**
LR-M015A	Instrument Air	F/3-4	piping, pressure indicator[1], tubing, valve body	No	LRA Table 3.3.2-17 rows 19-23, 25, and 34-36 address the internal and external environments of subject piping, tubing, and valve body.
LR-M015D	Station Air	G/8-9	bolting, piping	No	LRA Table 3.3.2-29 rows 4-6 and 13-15 address the internal and external environments of subject bolting and piping.
LR-M015F	Station Air	D/2-6	bolting, piping, pressure indicator[1], valve body	Yes	LRA Table 3.3.2-29 rows 4-6 and 13-15 address the internal and external environments of the subject bolting and piping. **LRA Table 3.3.2-29 is revised to add rows for subject valve body**
LR-M017B	Emergency Diesel Generators	C/5, E/5, G/5, J/5	n/a	No	Highlighting removed due to new S/I boundary. However, no component types, materials, or environments were removed from the Emergency Diesel Generator System scoping results as a result of removing this highlighting.
LR-M019	Nitrogen Gas	D-K/1-2, A-F/13-14	tubing	Yes	**LRA Table 3.3.2-22 is revised to add rows for subject tubing**

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M019	Nitrogen Gas	B/3	bolting, piping, valve body	Yes	LRA Table 3.3.2-22 rows 6-8 and 15-17 address the internal and external environments of the subject bolting and piping. **LRA Table 3.3.2-22 is revised to add rows for subject valve body**
	Nitrogen Gas	C-D/5-6	bolting, piping, valve body	Yes	LRA Table 3.3.2-22 rows 6-8 and 15-17 address the internal and external environments of the subject bolting and piping. **LRA Table 3.3.2-22 is revised to add rows for subject valve body**
LR-M029B	Process and Area Radiation Monitoring	C/2, D/2	bolting, piping, tubing	Yes	**LRA Table 3.3.2-23 is revised to add rows for subject bolting, piping, and tubing**
	Containment Hydrogen Control	C/3	bolting, piping, valve body	No	LRA Table 3.3.2-8 rows 13, 16, 73-75, and 112-114 address the internal and external environments of the subject bolting, piping, and valve body.
	Containment Hydrogen Control	E/4	bolting, piping, valve body	No	LRA Table 3.3.2-8 rows 13, 16, 73-75, and 112-114 address the internal and external environments of the subject bolting, piping, and valve body.

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M029C	Instrument Air	A-B/1-2, F-G/1-2	tubing	No	LRA Table 3.3.2-17 rows 26-28 address the internal and external environments of the subject tubing
	Instrument Air	C/4-5, H/5	tubing	No	LRA Table 3.3.2-17 rows 26-28 address the internal and external environments of the subject tubing
	Containment Hydrogen Control	A-C/12-14	flow indicator[1], pump casing, tubing, valve body	Yes	LRA Table 3.3.2-8 rows 97, 99, 100, 102, 104, and 105 address the internal and external environments of the subject tubing and valve body. **LRA Table 3.3.2-8 is revised to add rows for pump casing**
	Instrument Air	D-F/13-14	tubing	No	LRA Table 3.3.2-17 rows 26-28 address the internal and external environments of the subject tubing

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M029D	Containment Hydrogen Control	K/3	bolting, piping	No	LRA Table 3.3.2-8 rows 17, 20, 21, and 76-78 address the internal and external environments of the subject bolting and piping.
	Containment Hydrogen Control	D/11	bolting, piping	No	LRA Table 3.3.2-8 rows 17, 20, 21, and 76-78 address the internal and external environments of the subject bolting and piping.
LR-M030A	Reactor Coolant Vent and Drain	A/1-2	bolting, flow gage[1], piping, tubing, valve body	No	LRA Table 3.3.2-24 rows 5, 8, 37, 41, 42, 72, 76, 77, 86, 90, 91, 92, 96, and 97 address the internal and external environments of the subject bolting, piping, tubing, and valve body.
	Reactor Coolant Vent and Drain	A/3	bolting, piping	No	LRA Table 3.3.2-24 rows 5, 8, 37, 41, and 42 address the internal and external environments of the subject bolting and piping.
	Reactor Coolant Vent and Drain	A-C/11-12, D-F/1-2	bolting, flow gage[1], piping, tubing, valve body	No	LRA Table 3.3.2-24 rows 5, 8, 37, 41, 42, 72, 76, 77, 86, 90, 91, 92, 96, and 97 address the internal and external environments of the subject bolting, piping, tubing, and valve body.
	Nitrogen Gas	E/3, E11	bolting, piping	No	LRA Table 3.3.2-22 rows 6-8 and 15-17 address the internal and external environments of the subject bolting and piping.

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M031B	Makeup and Purification	A/2-3	tubing, pressure indicator[1]	Yes	LRA Table 3.3.2-18 rows 154 and 155 address the external environment of the subject tubing. **LRA Table 3.3.2-18 is revised to add rows for tubing in dried air (Internal)**
	Makeup and Purification	F/8, G/8, J/8, K/8	tubing, pressure indicator[1], valve body	Yes	LRA Table 3.3.2-18 rows 154, 155, 176, and 177 address the external environment of the subject tubing and valve body. **LRA Table 3.3.2-18 is revised to add rows for tubing and valve body in dried air (Internal)**
	Makeup and Purification	F/7, G/7, J/7, K/7	tubing, pressure indicator[1]	Yes	LRA Table 3.3.2-18 rows 154 and 155 address the external environment of the subject tubing. **LRA Table 3.3.2-18 is revised to add rows for tubing in dried air (Internal)**
LR-M033B	Decay Heat Removal and Low Pressure Injection	E/10, G/12	tubing	No	Control air supply components not subject to AMR as described in LRA Section 2.3.2.4
	Decay Heat Removal and Low Pressure Injection	H/5	bolting, piping	No	LRA Table 3.2.2-4 rows 6, 7, 82, 89, and 90 address the internal and external environments of the subject bolting and piping.

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M033C	Decay Heat Removal and Low Pressure Injection	E/7 - highlighting changed from green to magenta	tubing, pressure indicator[1]	No	LRA Table 3.2.2-4 rows 135-140 address the internal and external environments of the subject tubing.
	Decay Heat Removal and Low Pressure Injection System	C/10, E/11	tubing	No	Control air supply components not subject to AMR as described in LRA Section 2.3.2.4
LR-M036A	Component Cooling Water System	A/9, A/10	bolting, piping	Yes	LRA Table 3.3.2-7 rows 13, 16, 63, 68, and 69 address the external environments of the subject bolting and piping. **LRA Table 3.3.2-7 is revised to add rows for bolting/air-indoor uncontrolled (External)/loss of material and piping/gas (Internal)**

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M038B	Gaseous Radwaste	B/3	bolting, piping, valve body	No	LRA Table 3.3.2-16 rows 5, 8, 34, 36, 37, 60, 62, and 63 address the internal and external environments of the subject bolting, piping, and valve body.
	Gaseous Radwaste	E/4, H/4	bolting, piping	No	LRA Table 3.3.2-16 rows 5, 8, 34, 36, and 37 address the internal and external environments of the subject bolting and piping.
	Gaseous Radwaste	C-D/9-13	bolting, piping, valve body	No	LRA Table 3.3.2-16 rows 5, 8, 34, 36, 37, 60, 62, and 63 address the internal and external environments of the subject bolting, piping, and valve body.
	Gaseous Radwaste	E/9 - E/14	bolting, piping, orifice, valve body	No	LRA Table 3.3.2-16 rows 5, 8, 27-29, 34, 36, 37, 60, 62, and 63 address the internal and external environments of the subject bolting, piping, orifice, and valve body.
	Gaseous Radwaste	C-K/4-8	bolting, moisture separator body, trap body, piping, valve body	Yes	LRA Table 3.3.2-16 rows 5, 8, 34-37, and 60-63 address the internal and external environments of the subject bolting, piping, and valve body. **LRA Table 3.3.2-16 is revised to add rows for subject moisture separator body and trap body**

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M038B	Gaseous Radwaste	H-K/8-14	bolting, level indicator[1], piping, orifice, valve body	Yes	LRA Table 3.3.2-16 rows 5, 8, 28, 29, 34-37, and 60-63 address the internal and external environments of the subject bolting, piping, orifice, and valve body. **LRA Table 3.3.2-16 is revised to add rows for orifice/condensation (Internal)**
LR-M038C	Gaseous Radwaste	G/2, G/4, G/6 G/3, G/5, G/7	bolting, piping	No	LRA Table 3.3.2-16 rows 5, 8, 34, 36, and 37 address the internal and external environments of the subject bolting and piping.
LR-M040A	Reactor Coolant Vent and Drain	E/3	bolting, piping	No	LRA Table 3.3.2-24 rows 5, 8, 37, 41, and 42 address the internal and external environments of the subject bolting and piping.
	Reactor Coolant Vent and Drain	C/11	bolting, piping	No	LRA Table 3.3.2-24 rows 5, 8, 36, 41, and 42 address the internal and external environments of the subject bolting and piping.
	Reactor Coolant Vent and Drain	G-K/1-7	bolting, piping, valve body	No	LRA Table 3.3.2-24 rows 5, 8, 36, 37, 41, 42, 86, 90-92, 96, and 97 address the internal and external environments of the subject bolting, piping, and valve body.

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affects LRA Text? (Yes/No)	Discussion/Conclusion
LR-M040D	Reactor Coolant Vent and Drain	H/8	bolting, piping	No	LRA Table 3.3.2-24 rows 5, 8, 37, 41, and 42 address the internal and external environments of the subject bolting and piping.
LR-M041C	Service Water	B-C/3-4, C/7-8, C/10-12	E/H converter[1], tubing, valve body	Yes	**LRA Table 3.3.2-26 is revised to add rows for tubing and valve body**
LR-M900A	Instrument Air	C-G/1-6	piping, valve body	No	LRA Table 3.3.2-17 rows 19-21 and 34-36 address the internal and external environments of the subject piping and valve body.

1 – Flow gage, level indicator, pressure indicator, position controller, E/H converter, and pressure indicator are in a line that serves a structural integrity function and are within the scope of license renewal as indicated by the highlighting. These instruments and instruments in general are exempt from aging management review (AMR) because 10 CFR 54.21(a)(1)(i) specifically excludes, but is not limited to, pressure and water level indicators, which are similar to those instruments and indicators identified in the table.

See Enclosure A to this letter for the revision to the DBNPS LRA.

See Enclosure B to this letter for the revision to the LRA Boundary Drawings.

Question RAI 2.1-3

10 CFR 54.4(a)(2) states: (a) Plant systems, structures and components within the scope of this part are (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the [safety-related] functions identified in (a)(1)(i), (ii), or (iii) of this section.

During the scoping and screening methodology audit, performed on-site January 24-28, 2011, the staff reviewed the LRA, the 10 CFR 54.4(a)(2) implementing documents and license renewal drawings, and also performed plant walkdowns. The staff determined through a review of license renewal drawings and discussion with the applicant that equipment that was no longer required had been placed in an abandoned state.

The staff requests that the applicant provide details on the activities performed to confirm that all abandoned equipment that at any time contained fluids, and is in the proximity of safety-related SSCs, has been verified to be drained. If abandoned equipment has not been verified to be drained or is not included within the scope of license renewal, provide details of the analysis performed and any conclusions, related to the inclusion of abandoned equipment within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). During the review of this issue, consider extent of condition, and indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

RESPONSE RAI 2.1-3

FENOC provides the following new license renewal future commitment regarding abandoned equipment, which will be included in LRA Appendix A, "Updated Safety Analysis Report Supplement," Table A-1, "Davis-Besse License Renewal Commitments:"

> Prior to the period of extended operation, FENOC will review all License Renewal scoping drawings and Aging Management Review reports to ensure identification of components that would have been in scope under 10 CFR 54.4(a)(2), but were excluded from aging management because they are abandoned. For each such component or set of components,

FENOC will ensure administrative controls are in place to maintain the components isolated from fluid sources and drained.

If any additional components are determined to be within the scope of License Renewal as a result of this review, they will be addressed in an amendment to the LRA (if identified during the LRA review process), or during the periodic UFSAR update required by 10 CFR 50.71(e), as specified in 10 CFR 54.37(b).

See Enclosure A to this letter for the revision to the DBNPS LRA.

Question RAI 2.1-4

10 CFR 54.4(a)(2) states: (a) Plant systems, structures and components within the scope of this part are (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the [safety-related] functions identified in (a)(1)(i), (ii), or (iii) of this section.

During the scoping and screening methodology audit, performed on-site January 24-28, 2011, the staff reviewed the LRA, the 10 CFR 54.4(a)(2) implementing documents and license renewal drawings, and also performed plant walkdowns. The staff determined that the applicant did not include nonsafety-related relief valve drain lines, within the vicinity of safety-related SSCs, within the scope of license renewal. The staff's review determined that the function of a drain line is to pass fluid when required and therefore the pipe should be included within the scope of license renewal and subject to aging management review in accordance with 10 CFR 54.4 (a)(2) for spatial interaction. The staff further determined that following inclusion of the drain lines within the scope of license renewal, the applicant's aging management review will allow for the evaluation of material and environment combinations to identify aging effects and the suitability of aging management programs.

The staff requests that the applicant provide details of the analysis performed and any conclusions, related to the review of the potentially 'fluid filled, nonsafety-related relief valve drain lines, located within the vicinity of safety-related SSCs, for inclusion within the scope of license renewal in accordance with 10 CFR 54.4(a)(2) for spatial interaction. During the review of this issue, consider extent of condition, and indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging

management programs, as applicable, to be credited for managing the identified aging effects.

RESPONSE RAI 2.1-4

FENOC has performed a review of potentially fluid filled, nonsafety-related relief valve drain lines, located within the vicinity of safety-related SSCs, for inclusion within the scope of license renewal in accordance with 10 CFR 54.4(a)(2) for spatial interaction. The review resulted in identifying additional components for inclusion within the scope of license renewal. License renewal drawings were revised to highlight the additional components. A listing of the subject drawings and tables containing the AMR results along with any required additional rows are presented in the table below. The AMR tables (existing and revised) contain the component type, material/environment combinations, aging effects requiring management and credited aging management programs.

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affected LRA text? (Yes/No)	Discussion/Conclusion
LR-M007A	Main Steam	A-B/5-8; A-B/8-11; C/7; C/8	Bolting, Piping	No	Table 3.4.2-4 rows 10, 13, 14, 62, 69, 70 address the internal and external environments of subject bolting and piping.
LR-M031A	Makeup and Purification	G/5-6, H/7-8; C-G/5; C/5-9; B-C/9-10;	Bolting, Piping, Valve body, Flow gage[1]	No	Table 3.3.2-18 rows 12-15, 89, 97, 98, 169, 176, 177 address the internal and external environments of subject bolting, piping and valve body.
	Reactor Coolant Vent and Drain	F/7-11;	Bolting, Orifice, Piping	No	Table 3.3.2-24 rows 5-8, 24, 27, 28, 38, 41, 42 address the internal and external environments of subject bolting, orifice and piping.
		A-B/8	Bolting, Piping	No	Table 3.3.2-24 rows 5-8, 39-42 address the internal and external environments of subject bolting and piping.
LR-M031B	Reactor Coolant Vent and Drain	A/9-10	Bolting, Piping	No	Table 3.3.2-24 rows 5-8, 24, 27, 28, 38, 41, 42 address the internal and external environments of subject bolting and piping.
LR-M033B	Decay Heat Removal and Low Pressure Injection	D-E/1-2; H/5	Bolting, Piping	No	Table 3.2.2-4 rows 6, 7, 82, 89, 90 address the internal and external environments of subject bolting and piping.
LR-M034	Core Flooding	G/3; G/8	Bolting, Piping	No	Table 3.2.2-3 rows 1, 4, 23, 30, 31 address the internal and external environments of subject bolting and piping.

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affected LRA text? (Yes/No)	Discussion/Conclusion
LR-M035	Reactor Coolant Vent and Drain	H-J/4-5	Bolting, Orifice, Piping	No	Table 3.3.2-24 rows 5-8, 24, 27, 28, 38, 41, 42 address the internal and external environments of subject bolting, orifice and piping
LR-M036C	Component Cooling Water	A/9	Bolting, Piping	No	Table 3.3.2-7 rows 13, 16, 63, 68, 69 address the internal and external environments of subject bolting and piping.
LR-M037C (included in FENOC Letter L-11-114 dated April 15, 2011)	Reactor Coolant Vent and Drain	G/2-11;	Bolting, Orifice, Piping	No	Table 3.3.2-24 rows 5-8, 24, 27, 28, 38, 41, 42 address the internal and external environments of subject bolting, orifice and piping.
LR-M037E	Reactor Coolant Vent and Drain	A-B/2-7	Bolting, Orifice, Piping	No	Table 3.3.2-24 rows 5-8, 24, 27, 28, 38, 41, 42 address the internal and external environments of subject bolting, orifice and piping.

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affected LRA text? (Yes/No)	Discussion/Conclusion
LR-M039B (included in FENOC Letter L-11-114 dated April 15, 2011)	Miscellaneous Liquid Radwaste	E/2-3;	Bolting, Piping	Yes	Table 3.3.2-21 rows 3, 4, 24, 25 address the external environments of subject bolting and piping. **LRA Table 3.3.2-21 is revised to add rows for piping/air-indoor uncontrolled (internal)**
	Reactor Coolant Vent and Drain	E/7-8;	Bolting, Orifice, Piping	No	Table 3.3.2-24 rows 5-8, 24, 27, 28, 38, 41, 42 address the internal and external environments of subject bolting, orifice and piping.
LR-M040A	Reactor Coolant Vent and Drain	C/10-11; D/7-8; E-F/8-9	Bolting, Piping, Valve body	No	Table 3.3.2-24 rows 5-8, 36, 38, 41, 42, 87, 90, 91, 93, 96, 97 address the internal and external environments of subject bolting, piping and valve body.
LR-M043	Auxiliary Building Chilled Water	B/5	Bolting, Piping	Yes	Table 3.3.2-2 rows 1, 2, 3, 35 address the external environments of subject bolting and piping. **LRA Table 3.3.2-2 is revised to add rows for piping/air-indoor uncontrolled (internal) and piping/air-indoor uncontrolled (External)**

LR Drawing	System	Location of New Highlighting	Component Types in the New Highlighting	Affected LRA text? (Yes/No)	Discussion/Conclusion
LR-M281N13	Miscellaneous Liquid Radwaste	Right drawing border downstream of WM2252	Bolting, Piping	Yes	Table 3.3.2-21 rows 3, 4, 24, 25 address the external environments of subject bolting and piping. **LRA Table 3.3.2-21 is revised to add rows for piping/air-indoor uncontrolled (internal)**
1 – Flow gage or flow indicator is in a line that serves a structural integrity function and within the scope of license renewal as indicated by the highlighting. These instruments and instruments in general are exempt from aging management review (AMR) because 10 CFR 54.21(a)(1)(i) specifically excludes, but is not limited to, water level indicators, which are similar to sight glasses and flow gages.					

See Enclosure A to this letter for the revision to the DBNPS LRA.

See Enclosure B to this letter for the revision to the LRA Boundary Drawings.

Question RAI 2.1-5

10 CFR 54.4(a)(2) states: (a) Plant systems, structures and components within the scope of this part are (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the [safety-related] functions identified in (a)(1)(i), (ii), or (iii) of this section.

During the scoping and screening methodology audit, performed on-site January 24-28, 2011, the staff reviewed the LRA, the 10 CFR 54.4(a)(2) implementing documents and license renewal drawings, and also performed plant walkdowns. The staff determined that the applicant did not include nonsafety-related drip pans and retention area drain lines, within the vicinity of safety-related SSCs, within the scope of license renewal. The staffs review determined that the function of the drip pans and retention area drain lines is to contain or pass fluid when required and therefore should be included within the scope of license renewal and subject to aging management review in accordance with 10 CFR 54.4 (a)(2) for spatial interaction and 10 CFR 54.21. The staff further determined that following inclusion of the drain lines within the scope of license renewal, the applicant's aging management review will allow for the evaluation of material and environment combinations to identify aging effects and the suitability of aging management programs.

The staff requests that the applicant provide details of the analysis performed and any conclusions, related to the review of the potentially fluid filled, non safety-related drip pan and retention area drain lines, located within the vicinity of safety-related SSCs, for inclusion within the scope of license renewal in accordance with 10 CFR 54.4(a)(2) for spatial interaction. During the review of this issue, consider extent of condition, and indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

RESPONSE RAI 2.1-5

FirstEnergy Nuclear Operating Company (FENOC) has performed a review of potentially fluid filled, nonsafety-related drip pan and retention area drain lines, located within the vicinity of safety-related SSCs, for inclusion within the scope of license renewal in accordance with 10 CFR 54.4(a)(2) for spatial interaction. The review has

considered extent of condition and identified additional SSCs for inclusion into the LRA. License renewal drawings were revised to highlight the additional components. For each affected drawing, the additional components including revised aging management review results are addressed below:

Drawing LR-M006D (H/2; C/14)

The drain pans and retention area drain lines associated with the Motor Driven Start-up Feed Pump P15 (H-2) and Aux Feed Pumps P14-1 and P14-2 (C-14) are in scope for (a)(2) considerations.

- Note: Changes to the LRA for the addition of the subject drip pans and retention area drain lines have been previously provided in the response to RAI 2.3.4.3-01 submitted by FENOC Letter dated 04/15/2011.

Drawing LR-M007A (J-K/4-7)

The drain pans and retention area drain lines associated with the main steam relief valves are in scope for (a)(2) considerations. LR-M007A was revised to highlight these components.

- This change affects LRA Tables 2.3.4-4 and 3.4.2-4. The component types within the added highlighting are included in the Main Steam System, and consist of "Drain Pan" and "Piping". Piping component types and materials are addressed in License Renewal Application Table 3.4.2-4 rows 62, 69 and 70. However, LRA Tables 2.3.4-4 and 3.4.2-4 were changed to include drain pans.

Drawing LR-M017C (J/10)

The drain line and valve associated with the Fire Pump Diesel Day Tank T47 is in scope for (a)(2) considerations. LR-M017C was revised to highlight these components. The curbs for oil spill confinement are structural components and are included with Bulk Commodities as concrete component type "Flood Curbs" in LRA Tables 2.4-13 and 3.5.2-13 as indicated in FENOC response to RAI 2.3.3.14-3 in Letter L-11-078 dated March 18, 2011.

- This change affects LRA Section 2.3.3.15 and Tables 2.3.3-15 and 3.3.2-15. The component types within the added highlighting are included in the System, and consist of "Bolting", "Piping" and "Valve body". LRA Section

2.3.3.15 and Tables 2.3.3-15 and 3.3.2 15 were changed or confirmed to include associated "Bolting", "Piping" and "Valve body".

Drawing LR-M033B (H/9)	The drain pans and retention area drain lines associated with the Decay Heat Pump P42-1 are in scope for (a)(2) considerations. LR-M033B was revised to highlight these components.

- This change affects LRA Tables 2.3.2-4 and 3.2.2-4. The component types within the added highlighting are included in the System, and consist of "Drain Pan" and "Piping". LRA Tables 2.3.2-4 and 3.2.2-4 were changed or confirmed to include drain pan and associated piping.

Drawing LR-M033C (F/8)	The drain pans and retention area drain lines associated with the Decay Heat Pump P42-2 are in scope for (a)(2) considerations. LR-M033C was revised to highlight these components.

- This change affects LRA Tables 2.3.2-4 and 3.2.2-4. The component types within the added highlighting are included in the System, and consist of "Drain Pan" and "Piping". LRA Tables 2.3.2-4 and 3.2.2-4 were changed or confirmed to include drain pan and associated piping.

Drawing LR-M034 (C/10; D/10)	The drain pans and retention area drain lines associated with the Containment Spray Pumps P56-1 and P56-2 are in scope for (a)(2) considerations. LR-M034 was revised to highlight these components.

- This change affects LRA Tables 2.3.2-2 and 3.2.2-2. The component types within the added highlighting are included in the System, and consist of "Drain Pan" and "Piping". Piping component types and materials are addressed in License Renewal Application Table 3.2.2-2 rows 36 and 37. However, LRA Tables 2.3.2-2 and 3.2.2-2 were changed or confirmed to include drain pans and associated piping.

Drawing LR-M035 (A/3; A/10)	The drain pans and retention area drain lines associated with the Refueling Canal Skimmer Pump P45 and Spent Fuel Pool Skimmer Pump

P134 are in scope for (a)(2) considerations. LR-M035 was revised to highlight these components.

- This change affects LRA Tables 2.3.3-27 and 3.3.2-27. The component types within the added highlighting are included in the System, and consist of "Drain Pan" and "Piping". LRA Tables 2.3.3-27 and 3.3.2-27 were changed or confirmed to include drain pans and associated piping.

Drawing LR-M036C (G/11; G/14) The drain pans and retention area drain lines associated with the Control Rod Drive Cooling (CRDC) Booster Pumps P170-1 and P170-2 are in scope for (a)(2) considerations. LR-M036C was revised to highlight these components.

- This change affects LRA Tables 2.3.3-7 and 3.3.2-7, and Appendix B.2.9. The component types within the added highlighting are included in the System, and consist of "Drain Pan" and "Piping". Piping component types and materials are addressed in License Renewal Application Table 3.3.2-7 rows 63, 68 and 69. However, LRA Tables 2.3.3-7, 3.3.2-7, and Appendix B.2.9 were changed or confirmed to include drain pans and associated piping.

See Enclosure A to this letter for the revision to the DBNPS LRA.

See Enclosure B to this letter for the revision to the LRA Boundary Drawings.

Question RAI 2.1-6

10 CFR 54.4(a)(2) states: (a) Plant systems, structures and components within the scope of this part are (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the [safety-related] functions identified in (a)(1)(i), (ii), or (iii) of this section.

During the scoping and screening methodology audit, performed on-site January 24-28, 2011, the staff reviewed the LRA, the 10 CFR 54.4(a)(2) implementing documents and license renewal drawings, and also performed plant walkdowns. During a plant walkdown, the staff observed a nonsafety-related domestic water valve and other nonsafety-related fluid filled SSCs located in the service water tunnel and in the vicinity of safety-related SSCs.

The staff requests that the applicant provide a basis for not including the non-safety related components, within the vicinity of safety-related SSCs within the scope of license renewal in accordance with 10 CFR 54.4(a)(2) for spatial interaction. During the review of this issue, consider extent of condition, and

indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

RESPONSE RAI 2.1-6

Following the scoping and screening methodology audit walkdown, the license renewal boundary drawings were reviewed and walkdowns performed to identify nonsafety-related fluid filled SSCs located in the vicinity of safety-related systems, structures and components (SSCs) in areas of the station where the drawings did not clearly identify building boundaries. This extent-of-condition review identified additional piping and components located in the safety-related Service Water Tunnel that should have been included within the scope of license renewal. The piping and components identified are associated with the Demineralized Water Storage (DWS) System, the Fire Protection (FP) System, the Fuel Oil System (specifically, fire pump diesel fuel oil piping), and the Makeup Water Treatment (MWT) System. License renewal boundary drawings LR-M006E, LR-M010A, LR-M010D, LR-M012E, LR-M016A, and LR-M017C are revised to highlight the added components. Based on the revised highlighting, no new component types are introduced to the scope of license renewal. However, additional material-environment combinations were evaluated as a result of the revised highlighting.

The component types within the added highlighting for the DWS System are already included in the LRA. For the DWS System, the component types consist of "Bolting," "Piping," and "Valve Body." These component types are addressed in LRA Table 3.3.2-11, "Aging Management Review Results – Demineralized Water Storage System," rows 5-8, 13-17, and 41-44. LRA Section 2.3.3.11 is revised to add license renewal boundary drawing LR-M006E to the list of license renewal boundary drawings that depict the evaluation boundaries of the DWS System.

The component types within the added highlighting for the FP System are already included in the LRA. For the FP System, the component types consist of "Bolting," "Piping," "Tubing," and "Valve Body." These components are addressed in LRA Table 3.3.2-14 "Aging Management Review Results – Fire Protection System," rows 15-18, 57, 58, 116, 117, 121, 122, 148, 149, and 151-153.

The component type within the added highlighting for the Fuel Oil System is "Piping", which is already addressed in the LRA. However, LRA Section 2.3.3.15, "Fuel Oil

System," is revised to identify that the system now contains components that meet the scoping criterion of 10 CFR 54.4(a)(2), for nonsafety-related components located near safety-related components. LRA Table 2.3.3.15, "Fuel Oil System Components Subject to Aging Management Review," is revised to include a new intended function for piping, "structural integrity". LRA Table 3.3.2-15 "Aging Management Review Results – Fuel Oil System," is revised to address aging management of the newly-identified (a)(2) piping.

For the MWT System, LRA Section 2.3.3.19, "Makeup Water Treatment System," is revised to add license renewal boundary drawing LR-M012E to the list of license renewal boundary drawings that depict the evaluation boundaries of the MWT System. The existing component types consist of "Bolting" and "Piping," which are addressed in LRA Table 3.3.2-19, "Aging Management Review Results – Makeup Water Treatment System," rows 1-4 and 8-10. The newly identified valve bodies are carbon steel (steel), with a raw water internal environment. LRA Table 3.3.2-19 is revised to add the new material-environment combination for the component type "Valve Body" to the MWT System.

See Enclosure A to this letter for the revision to the DBNPS LRA.

See Enclosure B to this letter for the revision to the LRA Boundary Drawings.

Question RAI 2.1-7

10 CFR 54.4(a)(2) states: (a) Plant systems, structures and components within the scope of this part are (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the [safety-related] functions identified in (a)(1)(i), (ii), or (iii) of this section.

During the scoping and screening methodology audit, performed on-site January 24-28, 2011, the staff reviewed the LRA, the 10 CFR 54.4(a)(2) implementing documents and license renewal drawings, and also performed plant walkdowns. During a plant walkdown, the staff observed the nonsafety-related condensate line located in the turbine building that exited through the deck to the space below that contained the auxiliary feedwater pumps. The applicant indicated that the condensate line nonsafety-related to safety-related interface was located at a point below the turbine building deck.

The staff requests that the applicant identify the specific location of the nonsafety to safetyrelated interface and all mitigative features installed to protect the integrity of the nonsafety to safety-related interface. The staff requests that the applicant provide the evaluation of all components and structures relied upon to protect the safety/nonsafety interface for inclusion within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). During the review of this issue, consider extent of condition, and indicate if the review concludes that use of the

scoping methodology precluded the identification of SSCs which should have included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

RESPONSE RAI 2.1-7

The specific location of the nonsafety-related (NSR)-to-safety-related interface (i.e., Q boundary) for the auxiliary feedwater pump suction from the Condensate System is at a pipe anchor encased in grout located six inches below the Turbine Building floor surface in the safety-related Auxiliary Building ceiling. Mitigative features were recently installed to protect the integrity of the Q boundary. The mitigative features are a missile shield, pipe supports and a stainless steel pipe segment. Missile shields and pipe supports are within the scope of license renewal and evaluated as Structural Bulk Commodities in LRA Table 3.5.2-13, "Aging Management Review Results – Bulk Commodities," rows 85 and 93. The supported piping is within the scope of license renewal as part of the in-scope suction piping for the Auxiliary Feedwater (AFW) Pumps. License renewal boundary drawing LR-M006D (grid E-F/5-6) is revised to highlight the added piping. No additional systems, structures and components (SSCs) were added to scope as a result of the extent of condition review of this issue.

During preparation of this response, however, it was identified that a newly installed portion of the AFW suction line at this location is fabricated of stainless steel, which is a new material and environment combination for the AFW System piping. Therefore, stainless steel piping with an "Air-indoor uncontrolled" external environment and a "Treated water" internal environment are added as material and environment combinations. FENOC conducted an aging management review for the added stainless steel piping material and environment combinations.

As a result of the aging management review, two aging management programs are credited to manage the "Loss of Material" aging effect. The aging management programs credited for the stainless steel piping are the PWR Water Chemistry Program supplemented by the One-Time Inspection for the internal aging effect of "Loss of Material." LRA Table 3.4.2-1, "Aging Management Review Results – Auxiliary Feedwater System," is revised to include the new material-environment combination.

See Enclosure A to this letter for the revision to the DBNPS LRA.

See Enclosure B to this letter for the revision to the LRA Boundary Drawings.

Question RAI 2.1-8

10 CFR 54.21, "Contents of application--technical information," states, in part: (1) For those systems, structures, and components within the scope of this part, as delineated in 10 CFR 54.4, identify and list those structures and components subject to an aging management review. Structures and components subject to an aging management review shall encompass those structures and components:

- **(i) That perform an intended function, as described in 10 CFR 54.4, without moving parts or without a change in configuration or properties.**
- **(ii) That are not subject to replacement based on a qualified life or specified time period.**

During the scoping and screening methodology audit, performed on-site January 24-28, 2011, the staff reviewed the LRA, selected aging management review documents and license renewal drawings, and also performed plant walkdowns. The staff determined through a review of the service water aging management review documentation that the service water pump bolts were excluded from the scope of license renewal based on periodic replacement. However, the aging management review documentation indicated that a visual inspection was also used to determine whether bolt replacement would be required. The staff determined that the use of inspection activities to determine the need to replace a component did not meet the requirements of 10 CFR 54.21 (a)(1)(ii), replacement based on a qualified life or specified time period.

The staff requests that the applicant provide details of the analysis performed and any conclusions, related to the review of service water pump bolts, for inclusion within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). The staff requests that the applicant perform a review of the issue, consider extent of condition, and indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

RESPONSE RAI 2.1-8

Analysis and conclusions related to inclusion of the service water pump bolts with the scope of license renewal:

LRA Section 2.3.3.26, page 2.3-129, provided the following:

"The bolting in the service water pumps and dilution pump (DB-P3-1 through 3 and DB-P180) is within the scope of license renewal. However, in the process of rebuilding the pumps, the bolting is inspected and repaired or replaced as necessary. As such the pump bolting is evaluated as short-lived, subject to replacement based on a qualified life or specified time period, and is not subject to AMR."

The bolts associated with the service water pumps and dilution pump (DB-P3-1 through 3 and DB-P180) are replaced as necessary but not on a qualified life basis or a specified time period. Therefore, the subject bolts are within the scope of license renewal in accordance with 10 CFR 54.4(a) and are subject to aging management review (AMR) in accordance with 10 CFR 54.21(a) on the basis that they perform a license renewal intended function and are not replaced on a qualified life basis or a specified time period.

The aging management review (AMR) for the bolts associated with the service water pumps (DB-P3-1, 2, and 3) and dilution pump (DB-P180) has been revised and the steel bolting was evaluated for a raw water external environment since the pumps are submerged in water supplied by Lake Erie. The AMR results are provided in revised LRA Table 3.3.2-26.

Extent of condition:

An extent of condition was conducted relative to components within the scope of license renewal and determined as "not subject to an AMR" based upon replacement. AMR reports were reviewed to identify components that were "not subject to AMR" based upon replacement. There were no other components that were determined as "not subject to AMR" due to replacement, where the replacement was based upon an inspection versus a specified time period.

In addition, the license renewal AMR project instruction provides that components subject to refurbishment or replacement solely on the basis of condition (e.g., the component is replaced only if significant degradation is observed during a periodic inspection), are still considered long-lived and require an AMR.

No additional scoping evaluations were required to address the 10 CFR 54.4(a) or 10 CFR 54.21(a) criteria. Also, no changes were required to the Davis-Besse license renewal scoping and screening methodology.

See Enclosure A to this letter for the revision to the DBNPS LRA.

Enclosure A

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

Letter L-11-131

Amendment No. 5 to the DBNPS License Renewal Application

License Renewal Application Sections Affected

Table 2.3.2-2	Section 3.3.2.1.8
Table 2.3.2-4	Table 3.2.2-2
Table 2.3.3-7	Table 3.2.2-4
Table 2.3.3-8	Table 3.3.1
Section 2.3.3.11	Table 3.3.2-2
Section 2.3.3.15	Table 3.3.2-7
Table 2.3.3-15	Table 3.3.2-8
Table 2.3.3-16	Table 3.3.2-15
Section 2.3.3.17	Table 3.3.2-16
Section 2.3.3.19	Table 3.3.2-18
Section 2.3.3.22	Table 3.3.2-19
Table 2.3.3-22	Table 3.3.2-21
Table 2.3.3-23	Table 3.3.2-22
Section 2.3.3.24	Table 3.3.2-23
Section 2.3.3.26	Table 3.3.2-26
Table 2.3.3-27	Table 3.3.2-27
Section 2.3.3.29	Table 3.4.2-1
Table 2.3.4-4	Table 3.4.2-4
Table A-1	Section B.2.9

The Enclosure identifies the change to the License Renewal Application (LRA) by Affected LRA Section, LRA Page No., and Affected Paragraph and Sentence. The count for the affected paragraph, sentence, bullet, etc. starts at the beginning of the affected Section or at the top of the affected page, as appropriate. Below each section the reason for the change is identified, and the sentence affected is printed in *italics* with deleted text ~~*lined-out*~~ and added text *underlined*.

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.2-2	**Page 2.3-29**	**New row**

New intended function added due to changes from the response to RAI 2.1-5. LRA Table 2.3.2-2, "Containment Spray System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Drain Pan	*Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.2-4	**Page 2.3-36**	**New row**

New intended function added due to changes from the response to RAI 2.1-5. LRA Table 2.3.2-4, "Decay Heat Removal and Low Pressure Injection System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Drain Pan	*Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.3-7	**Page 2.3-70**	**New row**

New intended function added due to changes from the response to RAI 2.1-5. LRA Table 2.3.3-7, "Component Cooling Water System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Drain Pan	*Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.3-8	**Page 2.3-73**	**New row**

New row added due to changes from the response to RAI 2.1-2. LRA Table 2.3.3-8, "Containment Hydrogen Control System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Pump Casing – Post accident gas sample pump (DB-P218)	*Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Section 2.3.3.11	**Page 2.3-79**	**New drawing number**

New drawing number added due to changes from the response to RAI 2.1-6. LRA Section 2.3.3.11, "Demineralized Water Storage System," is revised to read:

License Renewal Drawings

The following license renewal drawings depict the evaluation boundaries for the system components within the scope of license renewal:

LR-M006E, LR-M010C, LR-M010D, LR-M020B, LR-M021, LR-M031A, LR-M035, LR-M036A, LR-M037C, LR-M037D, LR-M037E, LR-M039A, LR-M040A, LR-M045

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Section 2.3.3.15	**Page 2.3-97**	**4th paragraph**

Revised text due to changes from the response to RAI 2.1-5 and plant walkdowns in response to RAI 2.1-6. LRA Section 2.3.3.15, "Fuel Oil System," is revised to read:

Reason for Scope Determination

The Fuel Oil System does not perform any safety-related system intended functions that satisfy the scoping criteria of 10 CFR 54.4(a)(1).

The Fuel Oil System does not contain any NSR components that are identified in the CLB as having the potential to prevent the satisfactory accomplishment of a function identified in 10 CFR 54.4(a)(1). ~~*The Fuel Oil System does not contain NSR components that are attached or located near safety-related SSCs, whose failure creates a potential for spatial interaction that could prevent the satisfactory accomplishment of a function identified in 10 CFR 54.4(a)(1). Therefore, the Fuel Oil System does not satisfy the scoping criteria of 10 CFR 54.4(a)(2).*~~ *The Fuel Oil System does, however, contain NSR components that are attached to or located near safety-related SSCs, whose failure creates a potential for spatial interaction that could prevent the satisfactory accomplishment of a function identified in 10 CFR 54.4(a)(1). Therefore, the Fuel Oil System satisfies the scoping criteria of 10 CFR 54.4(a)(2) and performs the following system intended function:*

- *Maintain structural integrity*

The Fuel Oil System is relied upon to demonstrate compliance with, and satisfies the 10 CFR 54.4(a)(3) scoping criteria for, the Fire Protection (10 CFR 50.48) regulated event.

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.3-15	**Page 2.3-98**	**New intended functions**

New intended functions added due to changes from the response to RAI 2.1-5. LRA Table 2.3.3-15, "Fuel Oil System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Bolting	Pressure boundary *Structural integrity*
Piping	Pressure boundary *Structural integrity*
Valve Body	Pressure boundary *Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.3-16	**Page 2.3-101**	**New rows**

New rows added due to changes from the response to RAI 2.1-2. LRA Table 2.3.3-16, "Gaseous Radwaste System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Moisture separator body	*Structural integrity*
Trap body	*Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Section 2.3.3.17	**Page 2.3-102**	**New drawing number**

New drawing number added due to changes from the response to RAI 2.1-2. LRA Section 2.3.3.17, "Instrument Air System," is revised to read:

License Renewal Drawings

The following license renewal drawings depict the evaluation boundaries for the system components within the scope of license renewal:

LR-M015A, LR-M029C, *LR-M900A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Section 2.3.3.19	**Page 2.3-108**	**New drawing number**

New drawing number added due to changes from the response to RAI 2.1-6. LRA Section 2.3.3.19, "Makeup Water Treatment System," is revised to read:

License Renewal Drawings

The following license renewal drawings depict the evaluation boundaries for the system components within the scope of license renewal:

LR-M011, *LR-M012E*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Section 2.3.3.22	**Page 2.3-115**	**New drawing number**

New drawing number added due to changes from the response to RAI 2.1-2. LRA Section 2.3.3.22, "Nitrogen Gas System," is revised to read:

License Renewal Drawings

The following license renewal drawings depict the evaluation boundaries for the system components within the scope of license renewal:

LR-M019, LR-M030A, *LR-M007A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.3-22	**Page 2.3-116**	**New intended function**

New intended function added due to changes from the response to RAI 2.1-2. LRA Table 2.3.3-22, "Nitrogen Gas System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Tubing	Pressure boundary *Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.3-23	**Page 2.3-119**	**New intended functions**

New intended functions added due to changes from the response to RAI 2.1-2. LRA Table 2.3.3-23, "Process and Area Radiation Monitoring System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Bolting	Pressure boundary *Structural integrity*
Piping	Pressure boundary *Structural integrity*
Tubing	Pressure boundary *Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Section 2.3.3.24	**Page 2.3-121**	**New drawing numbers**

New drawing numbers added due to changes from the response to RAI 2.1-2. LRA Section 2.3.3.24, "Reactor Coolant Vent and Drain System," is revised to read:

License Renewal Drawings

The following license renewal drawings depict the evaluation boundaries for the system components within the scope of license renewal:

LR-M010C, LR-M030A, LR-M031C, LR-M033A, LR-M033B, LR-M033C, LR-M037D, LR-M040A, LR-M040D, *LR-M007A, LR-M031B*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Section 2.3.3.26	**Page 2.3-129**	**2nd bullet**

Deleted text due to changes from the response to RAI 2.1-8. LRA Section 2.3.3.26, "Service Water System," is revised to read:

Components Subject to AMR

In addition to those components specifically excluded in 10 CFR 54.21(a)(1)(i), such as instruments, the following components are within the scope of license renewal, but not subject to AMR:

- The radiation element (DB-RE8432), as a radiation monitor, does not meet the requirements of 10 CFR 54.21(a)(1)(i).
- ~~*The bolting in the service water pumps and dilution pump (DB-P3-1 through 3 and DB-P180) is within the scope of license renewal. However, in the process of rebuilding the pumps, the bolting is inspected and repaired or replaced as necessary. As such the pump bolting is evaluated as short-lived, subject to replacement based on a qualified life or specified time period, and is not subject to AMR.*~~

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.3-27	**Page 2.3-133**	**New row**

New intended function added due to changes from the response to RAI 2.1-5. LRA Table 2.3.3-27, "Spent Fuel Pool Cooling and Cleanup System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Drain Pan	*Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Section 2.3.3.29	**Page 2.3-136**	**New drawing number**

New drawing number added due to changes from the response to RAI 2.1-2. LRA Section 2.3.3.29, "Station Air System," is revised to read:

License Renewal Drawings

The following license renewal drawings depict the evaluation boundaries for the system components within the scope of license renewal:

LR-M015D, *LR-M015F*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 2.3.4-4	**Page 2.3-162**	**New row**

New intended function added due to changes from the response to RAI 2.1-5. LRA Table 2.3.4-4, "Main Steam System Components Subject to Aging Management Review," is revised to read:

Component Type	Intended Function (as defined in Table 2.0-1)
Drain Pan	*Structural integrity*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Section 3.3.2.1.8	**Page 3.3-12**	**New material**

New material added due to changes from the response to RAI 2.1-2. LRA Section 3.3.2.1.8, "Containment Hydrogen Control System," is revised to read:

Materials

The materials of construction for subject mechanical components of the Containment Hydrogen Control System are:

- *Aluminum*
- Stainless steel
- Steel

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.2.2-2	**Page 3.2-51**	**5 New Rows**

New rows added due to changes from the response to RAI 2.1-5. LRA Table 3.2.2-2, "Aging Management Review Results – Containment Spray System," is revised to read:

Table 3.2.2-2 Aging Management Review Results – Containment Spray System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Drain Pan	*Structural integrity*	*Steel*	*Air with borated water leakage (Internal)*	*Loss of material*	*Boric Acid Corrosion*	*V.A-4*	*3.2.1-45*	*C 0201*
Drain Pan	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (Internal)*	*Loss of material*	*External Surfaces Monitoring*	*V.E-7*	*3.2.1-31*	*C 0201*
Drain Pan	*Structural integrity*	*Steel*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*V.A-4*	*3.2.1-45*	*A*
Drain Pan	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*V.A-1*	*3.2.1-31*	*A*
Piping	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (Internal)*	*Loss of material*	*External Surfaces Monitoring*	*V.E-7*	*3.4.1-28*	*C 0201*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.2.2-4	**Page 3.2-68**	**7 New Rows**

New rows added due to changes from the response to RAI 2.1-5. LRA Table 3.2.2-4, "Aging Management Review Results – Decay Heat Removal and Low Pressure Injection System," is revised to read:

Table 3.2.2-4 Aging Management Review Results – Decay Heat Removal and Low Pressure Injection System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Drain Pan	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (Internal)*	*Loss of material*	*External Surfaces Monitoring*	*V.E-7*	*3.2.1-31*	*C 0201*
Drain Pan	*Structural integrity*	*Steel*	*Air with borated water leakage (Internal)*	*Loss of material*	*Boric Acid Corrosion*	*V.D1-1*	*3.2.1-45*	*C*
Drain Pan	*Structural integrity*	*Steel*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*V.D1-1*	*3.2.1-45*	*A*
Drain Pan	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*V.E-7*	*3.2.1-31*	*A*
Piping	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (Internal)*	*Loss of material*	*External Surfaces Monitoring*	*V.E-7*	*3.2.1-31*	*C 0201*
Piping	*Structural integrity*	*Steel*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*V.D1-1*	*3.2.1-45*	*A*

Table 3.2.2-4 Aging Management Review Results – Decay Heat Removal and Low Pressure Injection System								
Component Type	**Intended Function(s)**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Program**	**NUREG-1801, Volume 2 Item**	**Table 1 Item**	**Notes**
Piping	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*V.E-7*	*3.2.1-31*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.1	**Page 3.3-99**	**Row 3.3.1-76**

Text in Discussion column revised based on the response to RAI 2.1-8. LRA Table 3.3.1, "Summary of Aging Management Programs for Auxiliary Systems Evaluated in Chapter VII of NUREG-1801," is revised to read:

Table 3.3.1 Summary of Aging Management Programs for Auxiliary Systems Evaluated in Chapter VII of NUREG-1801

Item Number	Component/Commodity	Aging Effect/Mechanism	Aging Management Programs	Further Evaluation Recommended	Discussion
3.3.1-76	Steel piping, piping components, and piping elements (without lining/coating or with degraded lining/coating) exposed to raw water	Loss of material due to general, pitting, crevice, and microbiologically influenced corrosion, fouling, and lining/coating degradation	Open-Cycle Cooling Water System	No	Consistent with NUREG-1801, with exceptions. *Except as noted below, loss of material in steel (including gray cast iron) piping, piping components, ~~and~~ piping elements, and bolting that are exposed to raw water is managed by the Open-Cycle Cooling Water Program.* For steel (including gray cast iron) piping, piping components, piping elements, and bolting that are exposed to raw water that is not from an open-cycle cooling water system, loss of material will be detected and characterized by the Collection, Drainage, and Treatment Components Inspection Program.

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-2	**Page 3.3-145**	**2 New Rows**

New rows added due to changes from the response to RAI 2.1-4. LRA Table 3.3.2-2, "Aging Aging Management Review Results – Auxiliary Building Chilled Water System," is revised to read:

Table 3.3.2-2 Aging Management Review Results – Auxiliary Building Chilled Water System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Piping	*Structural integrity*	*Copper Alloy*	*Air-indoor uncontrolled (Internal)*	*None*	*None*	*V.F-3*	*3.2.1-53*	*A 0307*
Piping	*Structural integrity*	*Copper Alloy*	*Air-indoor uncontrolled (External)*	*None*	*None*	*V.F-3*	*3.2.1-53*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-7	**Page 3.3-233**	**2 New Rows**

New rows added due to changes from the response to RAI 2.1-2. LRA Table 3.3.2-7, "Aging Management Review Results – Component Cooling Water System," is revised to read:

Table 3.3.2-7 Aging Management Review Results – Component Cooling Water System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Bolting	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*Bolting Integrity*	*VII.I-4*	*3.3.1-43*	*B*
Piping	*Structural integrity*	*Steel*	*Gas (Internal)*	*None*	*None*	*VII.J-23*	*3.3.1-97*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-7	**Page 3.3-233**	**5 New Rows**

New rows added due to changes from the response to RAI 2.1-5. LRA Table 3.3.2-7, "Aging Management Review Results – Component Cooling Water System," is revised to read:

Table 3.3.2-7 Aging Management Review Results – Component Cooling Water System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Drain Pan	*Structural integrity*	*Steel*	*Air with borated water leakage (Internal)*	*Loss of material*	*Boric Acid Corrosion*	*VII.I-10*	*3.3.1-89*	*C 0307*
Drain Pan	*Structural integrity*	*Steel*	*Raw water (Internal)*	*Loss of material*	*Collection, Drainage, and Treatment Components Inspection*	*VII.C1-19*	*3.3.1-76*	*E 0328*
Drain Pan	*Structural integrity*	*Steel*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*VII.I-10*	*3.3.1-89*	*A*
Drain Pan	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*A*
Piping	*Structural integrity*	*Steel*	*Raw water (Internal)*	*Loss of material*	*Collection, Drainage, and Treatment Components Inspection*	*VII.C1-19*	*3.3.1-76*	*E 0328*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-8	**Page 3.3-251**	**6 New Rows**

New rows added due to changes from the response to RAI 2.1-2. LRA Table 3.3.2-8, "Aging Management Review Results – Containment Hydrogen Control System," is revised to read:

Table 3.3.2-8 Aging Management Review Results – Containment Hydrogen Control System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Pump Casing – Post accident gas sample pump (DB-P218)	*Structural integrity*	*Aluminum*	*Air-indoor uncontrolled (Internal)*	*None*	*None*	*V.F-2*	*3.2.1-50*	*A*
Pump Casing – Post accident gas sample pump (DB-P218)	*Structural integrity*	*Aluminum*	*Air-indoor uncontrolled (External)*	*None*	*None*	*V.F-2*	*3.2.1-50*	*A*
Pump Casing – Post accident gas sample pump (DB-P218)	*Structural integrity*	*Aluminum*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*VII.A3-4*	*3.3.1-88*	*A*
Pump Casing – Post accident gas sample pump (DB-P218)	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (Internal)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*A 0307*
Pump Casing – Post accident gas sample pump (DB-P218)	*Structural integrity*	*Stainless Steel*	*Air with borated water leakage (External)*	*None*	*None*	*VII.J-16*	*3.3.1-99*	*A*

Table 3.3.2-8 Aging Management Review Results – Containment Hydrogen Control System								
Component Type	**Intended Function(s)**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Program**	**NUREG-1801, Volume 2 Item**	**Table 1 Item**	**Notes**
Pump Casing – Post accident gas sample pump (DB-P218)	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-15	**Page 3.3-343**	**6 New Rows**

New rows added due to changes from the response to RAI 2.1-5. LRA Table 3.3.2-15, "Aging Management Review Results – Fuel Oil System," is revised to read:

Table 3.3.2-15 Aging Management Review Results – Fuel Oil System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Bolting	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*Bolting Integrity*	*VII.I-4*	*3.3.1-43*	*B*
Bolting	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of preload*	*Bolting Integrity*	*VII.I-5*	*3.3.1-45*	*B*
Piping	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (Internal)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*C 0301*
Piping	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*A*
Valve Body	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (Internal)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*C 0301*
Valve Body	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-15	**Page 3.3-343**	**4 New Rows**

New rows added due to changes from the response to RAI 2.1-6. LRA Table 3.3.2-15, "Aging Management Review Results – Fuel Oil System," is revised to read:

Table 3.3.2-15 Aging Management Review Results – Fuel Oil System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Piping	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (Internal)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*C 1701*
Piping	*Structural integrity*	*Steel*	*Fuel oil (Internal)*	*Loss of material*	*Fuel Oil Chemistry*	*VII.H1-10*	*3.3.1-20*	*B*
Piping	*Structural integrity*	*Steel*	*Fuel oil (Internal)*	*Loss of material*	*One-Time Inspection*	*VII.H1-10*	*3.3.1-20*	*A*
Piping	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-16	**Page 3.3-350**	**7 New Rows**

New rows added due to changes from the response to RAI 2.1-2. LRA Table 3.3.2-16, "Aging Management Review Results – Gaseous Radwaste System," is revised to read:

Table 3.3.2-16 Aging Management Review Results – Gaseous Radwaste System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Moisture Separator Body – Waste Gas Compressor (DB-C10-1 & 2)	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*C*
Moisture Separator Body – Waste Gas Compressor (DB-C10-1 & 2)	*Structural integrity*	*Stainless Steel*	*Air with borated water leakage (External)*	*None*	*None*	*VII.J-16*	*3.3.1-99*	*C*
Moisture Separator Body – Waste Gas Compressor (DB-C10-1 & 2)	*Structural integrity*	*Stainless Steel*	*Condensation (Internal)*	*Loss of material*	*Collection, Drainage, and Treatment Components Inspection*	*VII.D-4*	*3.3.1-54*	*E*
Orifice	*Structural integrity*	*Stainless Steel*	*Condensation (Internal)*	*Loss of material*	*Collection, Drainage, and Treatment Components Inspection*	*VII.D-4*	*3.3.1-54*	*E*

Table 3.3.2-16 Aging Management Review Results – Gaseous Radwaste System								
Component Type	**Intended Function(s)**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Program**	**NUREG-1801, Volume 2 Item**	**Table 1 Item**	**Notes**
Trap Body	*Structural integrity*	*Stainless Steel*	*Condensation (Internal)*	*Loss of material*	*Collection, Drainage, and Treatment Components Inspection*	*VII.D-4*	*3.3.1-54*	*E*
Trap Body	*Structural integrity*	*Stainless Steel*	*Air with borated water leakage (External)*	*None*	*None*	*VII.J-16*	*3.3.1-99*	*A*
Trap Body	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-18	**Page 3.3-365**	**2 New Rows**

New rows added due to changes from the response to RAI 2.1-2. LRA Table 3.3.2-18, "Aging Management Review Results – Makeup and Purification System," is revised to read:

Table 3.3.2-18 Aging Management Review Results – Makeup and Purification System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Tubing	*Structural integrity*	*Stainless Steel*	*Dried air (Internal)*	*None*	*None*	*VII.J-18*	*3.3.1-98*	*A*
Valve Body	*Structural integrity*	*Stainless Steel*	*Dried air (Internal)*	*None*	*None*	*VII.J-18*	*3.3.1-98*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-19	**Page 3.3-398**	**2 New Rows**

New rows added due to changes from the response to RAI 2.1-6. LRA Table 3.3.2-19, "Aging Management Review Results – Makeup Water Treatment System," is revised to read:

Table 3.3.2-19 Aging Management Review Results – Makeup Water Treatment System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Valve Body	*Structural integrity*	*Steel*	*Raw water (Internal)*	*Loss of material*	*Collection, Drainage, and Treatment Components Inspection*	*VII.C1-19*	*3.3.1-76*	*E*
Valve Body	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-21	**Page 3.3-403**	**1 New Row**

New row added due to changes from the response to RAI 2.1-4. LRA Table 3.3.2-21, "Aging Management Review Results – Miscellaneous Liquid Radwaste System," is revised to read:

Table 3.3.2-21 Aging Management Review Results – Miscellaneous Liquid Radwaste System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Piping	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (Internal)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*A 0307*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-22	**Page 3.3-418**	**6 New Rows**

New rows added due to changes from the response to RAI 2.1-2. LRA Table 3.3.2-22, "Aging Management Review Results – Nitrogen Gas System," is revised to read:

Table 3.3.2-22 Aging Management Review Results – Nitrogen Gas System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Tubing	*Structural integrity*	*Stainless Steel*	*Gas (Internal)*	*None*	*None*	*VII.J-19*	*3.3.1-97*	*A*
Tubing	*Structural integrity*	*Stainless Steel*	*Air with borated water leakage (External)*	*None*	*None*	*VII.J-16*	*3.3.1-99*	*A*
Tubing	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*A*
Valve Body	*Structural Integrity*	*Steel*	*Gas (Internal)*	*None*	*None*	*VII.J-23*	*3.3.1-97*	*A*
Valve Body	*Structural Integrity*	*Steel*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*VII.I-10*	*3.3.1-89*	*A*
Valve Body	*Structural Integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*VII.D-3*	*3.3.1-57*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-23	**Page 3.3-423**	**8 New Rows**

New rows added due to changes from the response to RAI 2.1-2. LRA Table 3.3.2-23, "Aging Management Review Results – Process and Area Radiation Monitoring System," is revised to read:

Table 3.3.2-23 Aging Management Review Results – Process and Area Radiation Monitoring System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Bolting	*Structural integrity*	*Stainless Steel*	*Air with borated water leakage (External)*	*None*	*None*	*VII.J-16*	*3.3.1-99*	*C*
Bolting	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (External)*	*Loss of preload*	*Bolting Integrity*	*N/A*	*N/A*	*F*
Piping	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (Internal)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*A 0307*
Piping	*Structural integrity*	*Stainless Steel*	*Air with borated water leakage (External)*	*None*	*None*	*VII.J-16*	*3.3.1-99*	*A*
Piping	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*A*
Tubing	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (Internal)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*A 0307*

Table 3.3.2-23 Aging Management Review Results – Process and Area Radiation Monitoring System								
Component Type	**Intended Function(s)**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Program**	**NUREG-1801, Volume 2 Item**	**Table 1 Item**	**Notes**
Tubing	*Structural integrity*	*Stainless Steel*	*Air with borated water leakage (External)*	*None*	*None*	*VII.J-16*	*3.3.1-99*	*A*
Tubing	*Structural integrity*	*Stainless Steel*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VII.J-15*	*3.3.1-94*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-26	**Page 3.3-465**	**9 New Rows**

New rows added due to changes from the response to RAI 2.1-2. LRA Table 3.3.2-26, "Aging Management Review Results – Service Water System," is revised to read:

Table 3.3.2-26 Aging Management Review Results – Service Water System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Tubing	*Structural integrity*	*Copper Alloy*	*Dried air (Internal)*	*None*	*None*	*VII.J-3*	*3.3.1-98*	*A*
Tubing	*Structural integrity*	*Copper Alloy*	*Air with borated water leakage (External)*	*None*	*None*	*VII.J-5*	*3.3.1-99*	*A*
Tubing	*Structural integrity*	*Copper Alloy*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VIII.I-2*	*3.4.1-41*	*A*
Tubing	*Structural integrity*	*Copper Alloy > 15% Zn*	*Dried air (Internal)*	*None*	*None*	*VII.J-3*	*3.3.1-98*	*A*
Tubing	*Structural integrity*	*Copper Alloy > 15% Zn*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*VII.I-12*	*3.3.1-88*	*A*
Tubing	*Structural integrity*	*Copper Alloy > 15% Zn*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VIII.I-2*	*3.4.1-41*	*A*

Table 3.3.2-26 Aging Management Review Results – Service Water System								
Component Type	**Intended Function(s)**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Program**	**NUREG-1801, Volume 2 Item**	**Table 1 Item**	**Notes**
Valve Body	*Structural integrity*	*Copper Alloy > 15% Zn*	*Dried air (Internal)*	*None*	*None*	*VII.J-3*	*3.3.1-98*	*A*
Valve Body	*Structural integrity*	*Copper Alloy > 15% Zn*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*VII.I-12*	*3.3.1-88*	*A*
Valve Body	*Structural integrity*	*Copper Alloy > 15% Zn*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VIII.I-2*	*3.4.1-41*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-26	**Page 3.3-465**	**1 New Row**

New row added based on the response to RAI 2.1-8. LRA Table 3.3.2-26, "Aging Management Review Results – Service Water System," is revised to read:

Table 3.3.2-26 Aging Management Review Results – Service Water System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Bolting	*Pressure boundary*	*Steel*	*Raw Water (External)*	*Loss of material*	*Open-Cycle Cooling Water*	*VII.C1-19*	*3.3.1-76*	*B 0334*

Also, a new plant-specific note is added to the Plant-Specific Notes Table on LRA page 3.3-547. LRA Section 3.3, "Plant-Specific Notes" Table is revised to read:

Plant-Specific Notes:	
0334	The subject bolting is associated with the service water pumps (DB-P3-1, 2, and 3) and dilution pump (DB-P180) that are submerged in water supplied by Lake Erie.

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.3.2-27	**Page 3.3-483**	**7 New Rows**

New rows added due to changes from the response to RAI 2.1-5. LRA Table 3.3.2-27, "Aging Management Review Results – Spent Fuel Pool Cooling and Cleanup System," is revised to read:

Table 3.3.2-27 Aging Management Review Results – Spent Fuel Pool Cooling and Cleanup System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Drain Pan	*Structural integrity*	*Steel*	*Air with borated water leakage (Internal)*	*Loss of material*	*Boric Acid Corrosion*	*VII.E1-1*	*3.3.1-89*	*C 0307*
Drain Pan	*Structural integrity*	*Steel*	*Raw water (Internal)*	*Loss of material*	*Collection, Drainage, and Treatment Components Inspection*	*VII.C3-10*	*3.3.1-76*	*E 0328*
Drain Pan	*Structural integrity*	*Steel*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*VII.E1-1*	*3.3.1-89*	*A*
Drain Pan	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*A*
Piping	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (Internal)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*C 0307*

Table 3.3.2-27 Aging Management Review Results – Spent Fuel Pool Cooling and Cleanup System								
Component Type	**Intended Function(s)**	**Material**	**Environment**	**Aging Effect Requiring Management**	**Aging Management Program**	**NUREG-1801, Volume 2 Item**	**Table 1 Item**	**Notes**
Piping	*Structural integrity*	*Steel*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*VII.E1-1*	*3.3.1-89*	*A*
Piping	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*VII.I-8*	*3.3.1-58*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.4.2-1	**Page 3.4-41**	**3 New Rows**

New rows added due to changes from the response to RAI 2.1-7. LRA Table 3.4.2-1, "Aging Management Review Results – Auxiliary Feedwater System," is revised to read:

Table 3.4.2-1 Aging Management Review Results – Auxiliary Feedwater System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Piping	*Pressure boundary*	*Stainless Steel*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VIII.I-10*	*3.3.1-41*	*A*
Piping	*Pressure boundary*	*Stainless Steel*	*Treated water (Internal)*	*Loss of material*	*One-Time Inspection*	*VIII.G-32*	*3.3.1-16*	*A*
Piping	*Pressure boundary*	*Stainless Steel*	*Treated water (Internal)*	*Loss of material*	*PWR Water Chemistry*	*VIII.G-32*	*3.3.1-16*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.4.2-4	**Page 3.4-81**	**6 New Rows**

New rows added due to changes from the response to RAI 2.1-2. LRA Table 3.4.2-4, "Aging Management Review Results – Main Steam System," is revised to read:

Table 3.4.2-4 Aging Management Review Results – Main Steam System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Tubing	*Structural integrity*	*Copper Alloy*	*Dried air (Internal)*	*None*	*None*	*VII.J-3*	*3.3.1-98*	*A 0318*
Tubing	*Structural integrity*	*Copper Alloy*	*Air with borated water leakage (External)*	*None*	*None*	*VII.J-5*	*3.3.1-99*	*A*
Tubing	*Structural integrity*	*Copper Alloy*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VIII.I-2*	*3.4.1-41*	*A*
Tubing	*Structural integrity*	*Copper Alloy > 15% Zn*	*Dried air (Internal)*	*None*	*None*	*VII.J-3*	*3.3.1-98*	*A 0318*
Tubing	*Structural integrity*	*Copper Alloy > 15% Zn*	*Air with borated water leakage (External)*	*Loss of material*	*Boric Acid Corrosion*	*VII.I-12*	*3.3.1-88*	*A*
Tubing	*Structural integrity*	*Copper Alloy > 15% Zn*	*Air-indoor uncontrolled (External)*	*None*	*None*	*VIII.I-2*	*3.4.1-41*	*A*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table 3.4.2-4	**Page 3.4-81**	**2 New Rows**

New rows added due to changes from the response to RAI 2.1-5. LRA Table 3.4.2-4, "Aging Management Review Results – Main Steam System," is revised to read:

Table 3.4.2-4 Aging Management Review Results – Main Steam System

Component Type	Intended Function(s)	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801, Volume 2 Item	Table 1 Item	Notes
Drain Pan	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (Internal)*	*Loss of material*	*External Surfaces Monitoring*	*VIII.H-7*	*3.4.1-28*	*C 0405 0409*
Drain Pan	*Structural integrity*	*Steel*	*Air-indoor uncontrolled (External)*	*Loss of material*	*External Surfaces Monitoring*	*VIII.H-7*	*3.4.1-28*	*A 0409*

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Table A-1	**Page A-55**	**New Row**

A new license renewal future commitment is added to the table based on the response to RAI 2.1-3. LRA Table A-1, "Davis-Besse License Renewal Commitments," is revised to read:

Table A-1

Davis-Besse License Renewal Commitments

Item Number	Commitment	Implementation Schedule	Source	Related LRA Section No./ Comments
26	FENOC will review all License Renewal scoping drawings and Aging Management Review reports to ensure identification of components that would have been in scope under 10 CFR 54.4(a)(2), but were excluded from aging management because they are abandoned. For each such component or set of components, FENOC will ensure administrative controls are in place to maintain the components isolated from fluid sources and drained.	Prior to April 22, 2017	FENOC Letter L-11-131	Response to NRC RAI 2.1-3 in NRC Letter dated March 30, 2011

Affected LRA Section	LRA Page No.	Affected Paragraph and Sentence
Appendix B, Section B.2.9	**Page B-48**	**New "Aging Management Program Elements – Scope" Sub-bullet**

The Component Cooling Water System now includes the Collection, Drainage, and Treatment Components Inspection Program to manage aging effects due to changes from the response to RAI 2.1-5 The Component Cooling Water System, however, is not addressed in LRA Appendix B, Section B.2.9, "Collection, Drainage, and Treatment Components Inspection Program," and is added to the subheading "Aging Management Program Elements," under the subheading "Scope." LRA Section B.2.9 is revised to read:

The piping and components (filter bodies, flexible connections, heat exchanger shell and tubes, humidifier tubing, orifices, pump casings (including bolting), rupture discs, strainer bodies, tanks, tubing, and valve bodies) in the scope of this program are in the following systems:

- Auxiliary Building HVAC – Control Room Normal Ventilation System
- *Component Cooling Water System*
- Fire Protection System (including Diesel Fire Pump)
- Gaseous Radwaste System
- Makeup and Purification System
- Makeup Water Treatment System
- Miscellaneous Liquid Radwaste System
- Reactor Coolant Vent and Drain System
- Sampling System
- Spent Fuel Cooling and Cleanup System
- Station Plumbing, Drains, and Sumps System

Enclosure B

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

Letter L-11-131

Revised License Renewal Application Boundary Drawings

The following License Renewal Application Boundary Drawings are revised and are enclosed (69 drawings):

LR-M003A	**Revision 1**
LR-M003B	**Revision 1**
LR-M003C	**Revision 2**
LR-M006D	**Revision 2**
LR-M006E	**Revision 1**
LR-M007A	**Revision 1**
LR-M007B	**Revision 2**
LR-M009B	**Revision 1**
LR-M010A	**Revision 1**
LR-M010C	**Revision 1**
LR-M010D	**Revision 2**
LR-M012E	**Revision 1**
LR-M015A	**Revision 1**
LR-M015D	**Revision 1**
LR-M015F	**Revision 0**
LR-M016A	**Revision 1**
LR-M016B	**Revision 1**
LR-M017B	**Revision 1**
LR-M017C	**Revision 2**

LR-M017D	**Revision 1**
LR-M019	**Revision 1**
LR-M020A	**Revision 1**
LR-M020B	**Revision 2**
LR-M020D	**Revision 1**
LR-M021	**Revision 2**
LR-M022A	**Revision 1**
LR-M024G	**Revision 1**
LR-M024H	**Revision 1**
LR-M027A	**Revision 1**
LR-M027B	**Revision 1**
LR-M029B	**Revision 1**
LR-M029C	**Revision 2**
LR-M029D	**Revision 1**
LR-M029E	**Revision 1**
LR-M030A	**Revision 1**
LR-M030B	**Revision 1**
LR-M031A	**Revision 2**
LR-M031B	**Revision 1**
LR-M031C	**Revision 1**
LR-M033A	**Revision 1**
LR-M033B	**Revision 1**
LR-M033C	**Revision 1**
LR-M034	**Revision 1**
LR-M035	**Revision 1**
LR-M036A	**Revision 2**
LR-M036B	**Revision 1**
LR-M036C	**Revision 2**
LR-M037D	**Revision 3**
LR-M037E	**Revision 2**
LR-M037F	**Revision 1**

LR-M037G	**Revision 2**
LR-M037H	**Revision 1**
LR-M038B	**Revision 1**
LR-M038C	**Revision 2**
LR-M039A	**Revision 3**
LR-M040A	**Revision 3**
LR-M040D	**Revision 2**
LR-M041A	**Revision 1**
LR-M041B	**Revision 1**
LR-M041C	**Revision 1**
LR-M043	**Revision 1**
LR-M046	**Revision 1**
LR-M047	**Revision 1**
LR-M090	**Revision 2**
LR-M281N13	**Revision 2**
LR-M900A	**Revision 0**
LR-OS002	**Revision 1**
LR-OS041A1	**Revision 1**
LR-OS041A2	**Revision 1**

The 69 Drawings specifically referenced in Enclosure B have been processed into ADAMS.

These drawings can be accessed within the ADAMS package or by performing a search on the Document/Report Number.