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May 14, 2009
L-09-138

10 CFR 54

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

SUBJECT:

Beaver Valley Power Station, Unit Nos. 1 and 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
License Renewal Application (TAC Nos. MD6593 and MD6594) Amendment No. 36

Reference 1 provided the FirstEnergy Nuclear Operating Company (FENOC) License Renewal Application (LRA) for the Beaver Valley Power Station (BVPS). Reference 2 provided the U.S. Nuclear Regulatory Commission's (NRC) Safety Evaluation Report (SER) With Open Item Related to the License Renewal of Beaver Valley Power Station, Units 1 and 2. Reference 3 amended the LRA regarding the Inaccessible Medium-Voltage Cables and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program. Reference 4 amended the LRA regarding the SER open item. During a conference call between FENOC and the U.S. Nuclear Regulatory Commission (NRC) on May 5, 2009, the NRC staff requested that FENOC change the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program from a plant-specific program to a program consistent with NUREG-1801, and change the associated future license renewal commitments made in Reference 4.

The Enclosure provides Amendment No. 36 to the BVPS License Renewal Application.

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.

A108
NRR

I declare under penalty of perjury that the foregoing is true and correct. Executed on
May 17, 2009.

Sincerely,



Peter P. Sena III

References:

1. FENOC Letter L-07-113, "License Renewal Application," August 27, 2007.
2. NRC Letter, "Safety Evaluation Report with Open Item Related to the License Renewal of Beaver Valley Power Station, Units 1 and 2," January 9, 2009.
3. FENOC Letter L-08-262, "License Renewal Application Amendment No. 23 (TAC Nos. MD6593 and MD6594) and Revised License Renewal Boundary Drawings," September 8, 2008.
4. FENOC Letter L-09-057, "Reply to Request for Additional Information for the Review of the Beaver Valley Power Station. Units 1 and 2, License Renewal Application (TAC Nos. MD6593 and MD6594), and License Renewal Application Amendment No. 35," March 24, 2009.

Enclosures:

Amendment No. 36 to the BVPS License Renewal Application

cc: Mr. K. L. Howard, NRC DLR Project Manager
Mr. S. J. Collins, NRC Region I Administrator

cc: w/o Attachment or Enclosures
Mr. B. E. Holian, NRC DLR Director
Mr. D. L. Werkheiser, NRC Senior Resident Inspector
Ms. N. S. Morgan, NRC DORL Project Manager
Mr. D. J. Allard, PA BRP/DEP Director
Mr. L. E. Ryan, PA BRP/DEP

ENCLOSURE

Beaver Valley Power Station (BVPS), Unit Nos. 1 and 2

Letter L-09-138

Amendment No. 36 to the BVPS License Renewal Application

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License Renewal Application Sections Affected

Section 3.6.2.1

Table 3.6.1

Table 3.6.2.1

Section A.1.21

Table A.4-1

Table A.5-1

Table B.1-1

Table B.1-2

Table B.1-3

Section B.2.21

Appendix A Table of Contents

Appendix B Table of Contents

The Enclosure identifies the correction by Affected License Renewal Application (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.

<u>Affected LRA Section</u>	<u>LRA Page No.</u>	<u>Affected Paragraph and Sentence</u>
Section 3.6.2.1	Page 3.6-3	Aging Management Programs 5th Bullet

LRA Section 3.6.2.1, "Materials, Environment, Aging Effects Requiring Management and Aging Management Programs," subsection "Aging Management Programs," 5th bullet, requires revision of the title of the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program, which is being changed from a plant-specific program to a program consistent with NUREG-1801, "Generic Aging Lessons Learned (GALL)," Section XI.E3 (see the revision to LRA Section B.2.21 in this Enclosure). LRA Section 3.6.2.1, subsection "Aging Management Programs," 5th bullet, is revised to read:

- Inaccessible Medium-Voltage Cables ~~Suitable for Submergence and~~ Not Subject to 10 CFR 50.49 Environmental Qualification Requirements (Section B.2.21)

<u>Affected LRA Section</u>	<u>LRA Page No.</u>	<u>Affected Paragraph and Sentence</u>
Table 3.6.1	Page 3.6-10	Item No. 3.6.1-04 Discussion column

LRA Table 3.6.1, "Summary of Aging Management Evaluations in Chapter VI of NUREG-1801 for Electrical and Instrumentation and Controls Components," Item No. 3.6.1-04, "Discussion" column, requires revision of the title of the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program, which is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). LRA Table 3.6.1, Item No. 3.6.1-04, "Discussion" column, is revised to read:

Item Number	Discussion
3.6.1-04	<p><u>Consistent with NUREG-1801.</u></p> <p><u>BVPS will manage the aging effects with the Inaccessible Medium-Voltage Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements (B.2.21) Program.</u></p> <p>No aging effect requiring management has been identified. However, these components have been conservatively included in the BVPS plant specific Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10CFR50.49 Environmental Qualification Requirements (B.2.21) Program. This program includes testing and inspections of medium-voltage cables exposed to significant moisture and voltage.</p> <p>In Table 3.6.2-1, reduced insulation resistance is considered equivalent to the aging effect listed for this item (breakdown of insulation).</p>

<u>Affected LRA Section</u>	<u>LRA Page No.</u>	<u>Affected Paragraph and Sentence</u>
Table 3.6.2-1	Page 3.6-16 Page 3.6-20	Row No. 4 New Plant-specific Note (Note 602)

LRA Table 3.6.2-1, "Electrical and Instrumentation and Controls Components – Summary of Aging Management Evaluation," Row No. 4 and the "Plant-specific notes", require revision of the title of the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program, which is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). LRA Table 3.6.2.1, Row No. 4 is revised and "Plant-specific notes", Note 602 is removed:

Row No.	Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Volume 2 Item	Table 1 Item	Notes
4	Inaccessible medium-voltage (2kV to 35kV) cables (e.g., installed underground in conduit or direct buried) not subject to 10 CFR 50.49 EQ requirements	CE	Insulation material - various organic polymers	Adverse localized environment caused by exposure to moisture and voltage stress	<u>Reduced insulation resistance</u> <i>None</i>	Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements (B.2.21)	VI.A-4 (L-03)	3.6.1-04	<u>A</u> + 602

Plant-specific notes

~~602. — Based on a 2008 engineering evaluation, FENOC confirmed that all inaccessible medium-voltage cables within the scope of the Appendix B, Inaccessible Medium Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program (B.2.21) are suitable for operation in a submerged environment. Therefore, no aging effect requiring management was identified for these cables.~~

<u>Affected LRA Section</u>	<u>LRA Page No.</u>	<u>Affected Paragraph and Sentence</u>
Section A.1.21	Page A.1-9	Entire Section

LRA Section A.1.21, "Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program," requires revision of the entire section, because the program is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). LRA Section A.1.21 is revised to read:

A.1.21 Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program

~~The Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program is a new plant-specific program that BVPS will implement prior to the period of extended operation. demonstrates that inaccessible, non-EQ medium-voltage cables, susceptible to aging effects caused by moisture and voltage stress, are managed such that there is reasonable assurance that the cables will perform their intended function in accordance with the current licensing basis during the period of extended operation.~~

~~The inaccessible medium-voltage cables not subject to 10 CFR 50.49 environmental qualification requirements and within the scope of this program are suitable for submergence and therefore, no aging effect requiring management was identified for these cables.~~

~~The purpose of this aging management program will be to confirm that the aging effects caused by moisture and voltage stress are not occurring so that there is reasonable assurance that the cables will perform their intended function in accordance with the current licensing basis during the period of extended operation. In-scope medium-voltage cables will be tested to provide an indication of the condition of the conductor insulation. In this aging management program, periodic actions are taken, at least once every two (2) years, to minimize cable exposure to significant moisture, such as inspecting for water collection in cable manholes, and draining water, as needed. In-scope, medium-voltage cables exposed to significant moisture and significant voltage are tested to provide an indication of the condition of the conductor insulation.~~

The specific type of test performed will be determined prior to the initial test, and is to be a proven test for detecting deterioration of the insulation system due to wetting, such as power factor, partial discharge, or other testing that is state-of-the-art at the time the test is performed. Testing ~~will be~~ is conducted at least once every ten (10) years, with initial testing completed prior to the period of extended operation. Also, periodic visual inspections ~~will be~~ are performed on the accessible portions of cables (i.e., in manholes) for water induced damage. These inspections ~~will be~~ are performed at least once every two (2) years, with the first inspection ~~to be~~ completed prior to the period of extended operation.

Affected LRA Section **LRA Page No.** **Affected Paragraph and Sentence**

Table A.4-1 **Page A.4-5** **Item No. 11**

LRA Table A.4-1, "Unit 1 License Renewal Commitments," Item No. 11 regarding inaccessible medium-voltage cables, requires revision. The program is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). Therefore, the license renewal future commitment is replaced with a commitment to the new program consistent with NUREG-1801. Item No. 11 in LRA Table A.4-1 is revised to read:

Item Number	Commitment	Implementation Schedule	Source	Related LRA Section No./ Comments
11	<p><i>Implement the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program as described in LRA Section B.2.21.</i></p> <p>BVPS commits to implement one of the following prior to entering the period of extended operation:</p> <ol style="list-style-type: none"> 1. Adopt an acceptable methodology that demonstrates that the in-scope, continuously submerged, inaccessible, medium-voltage cables will continue to perform their intended function during the period of extended operation, or; 2. <i>Implement measures to minimize cable exposure to significant moisture through dewatering manholes. Incorporate operating experience obtained from dewatering and adjust the dewatering frequency to</i> 	January 29, 2016	<p>LRA;</p> <p>FENOC Letter L-08-262;</p> <p>FENOC Letter L-09-057;</p> <p><u>FENOC Letter L-09-138</u></p>	A.1.21 B.2.21

	<p><i><u>minimize cable exposure to significant moisture long-term submergence, or;</u></i></p> <p>3. <i>Replace the in-scope, continuously submerged medium-voltage cables <u>with cables designed for submerged service.</u></i></p>			
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Affected LRA Section **LRA Page No.** **Affected Paragraph and Sentence**

Table A.5-1 **Page A.5-5** **Item No. 12**

LRA Table A.5-1, "Unit 2 License Renewal Commitments," Item No. 12 regarding inaccessible medium-voltage cables, requires revision. The program is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). Therefore, the license renewal future commitment is replaced with a commitment to the new program consistent with NUREG-1801. Item No. 12 in LRA Table A.5-1 is revised to read:

Item Number	Commitment	Implementation Schedule	Source	Related LRA Section No./ Comments
12	<p><i>Implement the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program as described in LRA Section B.2.21.</i></p> <p>BVPS commits to implement one of the following prior to entering the period of extended operation:</p> <ol style="list-style-type: none"> 1. Adopt an acceptable methodology that demonstrates that the in-scope, continuously submerged, inaccessible, medium-voltage cables will continue to perform their intended function during the period of extended operation, or; 2. <i>Implement measures to minimize cable exposure to significant moisture through dewatering manholes. Incorporate operating experience obtained from dewatering and adjust the dewatering frequency to</i> 	May 27, 2027	<p>LRA;</p> <p>FENOC Letter L-08-262;</p> <p>FENOC Letter L-09-057;</p> <p><u>FENOC Letter L-09-138</u></p>	A.1.21 B.2.21

	<p><i><u>minimize cable exposure to significant moisture long-term submergence, or;</u></i></p> <p>3. <i>Replace the in-scope, continuously submerged medium-voltage cables <u>with cables designed for submerged service.</u></i></p>			
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<u>Affected LRA Section</u>	<u>LRA Page No.</u>	<u>Affected Paragraph and Sentence</u>
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Table B.1-1	Page B.1-6	8th Row
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LRA Table B.1-1, "BVPS Aging Management Programs," 8th row on page B.1-6, requires revision of the title of the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program, which is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). LRA Table B.1-1, 8th row on page B.1-6, is revised to read:

Aging Management Program Title	LRA Section	Status
<i>Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements</i>	B.2.21	New

Affected LRA Section **LRA Page No.** **Affected Paragraph and Sentence**

Table B.1-2 **Page B.1-12** **NUREG-1801 No. XI.E3; and Plant-Specific Programs**

LRA Table B.1-2, "BVPS Aging Management Program Correlation to NUREG-1801 Aging Management Programs," requires revision because the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). LRA Table B.1-2 is revised to read:

NUREG-1801 Number	NUREG-1801 Program	BVPS Program	LRA Section
XI.E3	Inaccessible Medium-Voltage Cables Not Subject to 10CFR50.49 Environmental Qualification Requirements	<i>Not credited for aging management. See plant-specific Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program.</i>	<u>B.2.21</u> —
Plant-Specific Programs			
NA	<i>Plant-specific Program</i>	<i>Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements</i>	<u>B.2.21</u>

Affected LRA Section **LRA Page No.** **Affected Paragraph and Sentence**

Table B.1-3 **Page B.1-15** **2nd Row**

LRA Table B.1-3, "BVPS Aging Management Program Consistency with NUREG-1801 Aging Management Programs," 2nd row on page B.1-15, requires revision because the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). LRA Table B.1-3, 2nd row on page B.1-15, is revised to read:

Program Name	Plant-Specific	NUREG-1801 Comparison		
		Programs Consistent with NUREG-1801	Programs with Enhancement(s)	Programs with Exception(s) to NUREG-1801
<i>Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements</i>	== Yes	--- <u>Yes</u>	--	--

<u>Affected LRA Section</u>	<u>LRA Page No.</u>	<u>Affected Paragraph and Sentence</u>
Section B.2.21	Pages B.2-58 through B.2-61	Entire Section

LRA Section B.2.21, "Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements," requires revision of the entire section, because the program is being changed from a new plant-specific program to a new program consistent with NUREG-1801. LRA Section B.2.21 is revised to read:

B.2.21 Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program

Program Description

The Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program is a new plant-specific program that BVPS will implement prior to the period of extended operation.

The purpose of this aging management program will be to demonstrate that inaccessible, non-EQ medium-voltage cables, susceptible to aging effects caused by moisture and voltage stress, will be managed such that there is reasonable assurance that the cables will perform their intended function in accordance with the current licensing basis during the period of extended operation.

~~*The inaccessible medium-voltage cables not subject to 10 CFR 50.49 environmental qualification requirements and within the scope of this program are suitable for submergence and therefore, no aging effect requiring management was identified for these cables.*~~

~~*The purpose of this aging management program will be to confirm that the aging effects caused by moisture and voltage stress are not occurring so that there is reasonable assurance that the cables will perform their intended function in accordance with the current licensing basis during the period of extended operation. In-scope medium-voltage cables will be tested to provide an indication of the condition of the conductor insulation. In this aging management program, periodic actions are taken, at least once every two (2) years, to minimize cable exposure to significant moisture, such as inspecting for water collection in cable manholes, and draining water, as needed. In-scope, medium-voltage cables exposed to significant moisture and significant voltage are tested to provide an indication of the condition of the conductor insulation.*~~

The specific type of test performed will be determined prior to the initial test, and is to be a proven test for detecting deterioration of the insulation system due to wetting, such as power factor, partial discharge, or other testing that is state-of-the-art at the time the test is performed. Testing will be conducted at least once every ten (10) years, with initial testing completed prior to the period of extended operation. Also, periodic visual inspections will be performed on the

accessible portions of cables (i.e., in manholes) for water induced damage. These inspections will be performed at least once every two (2) years, with the first inspection to be completed prior to the period of extended operation.

NUREG-1801 Consistency

The Inaccessible Medium-Voltage Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program is a new program that is consistent with NUREG-1801, Section XI.E3, Inaccessible Medium-Voltage Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements.

Exceptions to NUREG-1801

None

Enhancements

None

Aging Management Program Elements

The results of an evaluation of each of the 10 aging management program elements described in NUREG-1800 [Reference 1.3-4], Appendix A, NUREG-1801, Section XI.E3, are provided as follows:

• Scope of Program

The program is applicable to inaccessible, non- EQ medium-voltage cables ~~suitable for submergence~~ that support a license renewal intended function and are exposed to significant moisture simultaneously with significant voltage.

The program defines "significant moisture" as periodic exposure to moisture that lasts more than a few days (e.g., cable in standing water). Periodic exposure to moisture, which lasts less than a few days (i.e., normal rain and drain) is not significant.

The program defines "significant voltage" as being subject to system voltage for more than twenty-five percent (25%) of the time.

The moisture and voltage exposures described as significant in these definitions, which are based on operating experience and engineering judgment, are not significant for medium-voltage cables that are suitable designed for these conditions (i.e., submarine cables). ~~The BVPS in-scope medium voltage cables have been determined to be suitable for submergence; therefore, no aging effect requiring management was identified for these cables.~~

• **Preventive Actions**

This program includes periodic actions to minimize cable exposure to significant moisture. The program identifies the applicable manholes and will require inspection of these manholes at least once every two (2) years to inspect for water collection in cable manholes, and draining of water as needed. is a condition monitoring program which will confirm by inspecting and testing that aging effects are not occurring; therefore, no actions are taken as part of this program to prevent or mitigate aging degradation.

• **Parameters Monitored/Inspected**

The cables will be tested to provide indications of localized damage and breakdown of insulation leading to electrical failure due to moisture intrusion, water trees. an indication of the condition of the conductor insulation. The program allows that the specific type of test performed will be determined prior to the initial test, and is to be a proven test for detecting deterioration of the insulation system due to wetting, such as power factor, partial discharge, as described in EPRI guidance documents, or other testing that is state-of-the-art at the time the test is performed. Through manhole inspections, accessible portions of cables will be inspected for visual indications of water induced damage.

• **Detection of Aging Effects**

Testing of the cables will be performed at least once every ten (10) years, with the first test to be completed prior to the period of extended operation. *This is an adequate period to preclude failures of the conductor insulation since experience has shown that aging degradation is a slow process. A ten (10) year testing interval will provide two data points during a twenty (20) year period, which can be used to characterize the degradation rate. This testing will provide an indication of the condition of the conductor insulation. The specific type of test to be performed will be determined prior to the initial test, and is to be a proven test for detecting deterioration of the insulation system due to wetting, such as power factor, partial discharge, as described in EPRI guidance documents, or other testing that is state-of-the-art at the time the test is performed.*

Through manhole inspections, accessible portions of the cables will be visually inspected at least once every two (2) years, with the first inspection to be completed prior to the period of extended operation. This inspection will identify visual indications of water induced damage. Water identified in the applicable manholes will be drained at the time of inspection to facilitate visual inspection of the cables.

The program identifies the applicable manholes and will require inspection of these manholes at least once every two (2) years. The inspection frequency will be based on actual plant experience with water accumulation in the manhole, with the first inspection to be completed prior to the period of extended operation.

- **Monitoring and Trending**

Trending actions are not included as part of this program because the ability to trend results is dependent on the specific type of test chosen. However, all test and inspection results will be maintained as part of plant records. Therefore, these results are available for review and/or trending during subsequent tests and inspections as needed.

- **Acceptance Criteria**

Testing acceptance criteria will be defined by the specific type of test performed and the specific cable tested.

Visual inspection acceptance criteria will provide that the accessible portions of the cables are to be free from visual indications of surface anomalies.

- **Corrective Actions**

The program will require that unacceptable cable test/inspection results are to be documented in the BVPS Corrective Action Program. Any subsequent engineering evaluations and extent-of-condition determinations are conducted according to the Corrective Action Program.

This element is discussed further in Section B.1.3.

- **Confirmation Process**

This element is discussed further in Section B.1.3.

- **Administrative Controls**

This element is discussed further in Section B.1.3.

- **Operating Experience**

The Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program is a new plant-specific Beaver Valley Power Station aging management program for which there is no plant-specific operating experience for program effectiveness.

Industry operating experience that forms the basis for the program, as described in the operating experience element of the NUREG-1801, Section XI.E3 program description, BVPS plant-specific operating experience is consistent with the operating experience element of the NUREG-1801, Section XI.E3 program description. Industry and plant-specific operating experience will be considered in the development and implementation of this program. As additional operating experience is obtained, lessons learned will be appropriately incorporated into the program.

BVPS currently has a manhole inspection procedure, which provides for the identification of water induced damage to cables and cable supports contained in manholes. The BVPS manhole inspection procedure was performed in 2008. The results of the procedure are documented in the Corrective Action Program. The findings included missing seals, cracked walls, corroded supports, and water intrusion. No cable damage was found. The associated work order identifies varying amounts of water in in-scope manholes, with some in-scope manholes having water levels above the cable level.

~~A 2008 engineering evaluation has confirmed that in-scope medium voltage cables are suitable for operation in submerged environments. The inspection frequency of at least once every two (2) years will provide reasonable assurance that the cables will perform their intended function in accordance with the current licensing basis during the period of extended operation.~~

In the response to NRC Generic Letter 2007-01, "Inaccessible or Underground Power Cable Failures That Disable Accident Mitigation Systems or Cause Plant Transients," FENOC reported that BVPS has not experienced failure of inaccessible or underground power cables within the scope of 10 CFR 50.65.

The lack of cable failures and the lack of cable degradation support the cable testing frequency of at least once every ten (10) years.

Conclusion

~~The implementation of the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program will provide reasonable assurance that the aging effects will be managed so that the systems and components within the scope of this program will continue to perform their intended functions consistent with the current licensing basis for the period of extended operation.~~

<u>Affected LRA Section</u>	<u>LRA Page No.</u>	<u>Affected Paragraph and Sentence</u>
Appendix A	Page A-ii	Table of Contents, Item A.1.21
<p>LRA Appendix A, "Updated Final Safety Analysis Supplement," Table of Contents item A.1.21, requires revision of the title of the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program, which is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). LRA Appendix A, Table of Contents item A.1.21, is revised to read:</p>		
A.1.21		<i>Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements</i>A.1-9

<u>Affected LRA Section</u>	<u>LRA Page No.</u>	<u>Affected Paragraph and Sentence</u>
Appendix B	Page B-iv	Table of Contents, Item B.2.21
<p>LRA Appendix B, "Aging Management Programs and Activities," Table of Contents item B.2.21, requires revision of the title of the Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program, which is being changed from a plant-specific program to a program consistent with NUREG-1801 (see the revision to LRA Section B.2.21 in this Enclosure). LRA Appendix B, Table of Contents item B.2.21, is revised to read:</p>		
B.2.21		<i>Inaccessible Medium-Voltage Cables Suitable for Submergence and Not Subject to 10 CFR 50.49 Environmental Qualification RequirementsB.2-58</i>