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Director, Performance Improvement

724-682-5206

February 9, 2005
L-05-025

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
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
Submittal of License Renewal Application**

Pursuant to the requirements of 10 CFR Parts 50, 51 and 54, FirstEnergy Nuclear Operating Company (FENOC) is submitting a License Renewal Application (LRA) for the Beaver Valley Power Station (BVPS) Unit Nos. 1 and 2 (BVPS Unit 1 and BVPS Unit 2) operating licenses. The current facility operating licenses for BVPS Unit 1 (DPR-66) and BVPS Unit 2 (NPF-73) expire at midnight on January 29, 2016, and May 27, 2027, respectively. This application seeks to extend the current term of each license by 20 years beyond the current expiration dates.¹

The LRA contains the information required by the Commission's regulations that are set forth in 10 CFR 54.19, 54.21, 54.22, and 54.23. The application meets the timeliness requirements of 10 CFR 54.17(c)² and 2.109(b) and provides the required information to support the 10 CFR 54.29 findings necessary to issue the renewed licenses sought by this application. In addition, it satisfies the environmental regulations set forth in 10 CFR Part 51.

The technical information relating to plant design contained in this application is current as of October 15, 2004. Pursuant to 10 CFR 54.21(b), current licensing basis changes [since October 15, 2004] that have a material effect on the content of this application will be identified in annual updates to this application. Annual updates will be submitted while the application is under NRC review, and at least three months prior to the scheduled completion of the NRC review.

¹ FENOC realizes that the new expiration date for Unit No. 2 may need to be adjusted, based on the provision in 10 CFR 54.31(b) that "The term of any renewed license may not exceed 40 years."

² By letter dated May 10, 2002, the NRC approved a FENOC request for exemption from the schedular requirements of 10 CFR 54.17(c), since FENOC is submitting this application prior to 20 years before the expiration of the operating license for BVPS-2.

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The LRA has been prepared in a format and content compatible with: NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," published July 2001; NUREG-1801, "Generic Aging Lessons Learned (GALL) Report," published July 2001; NEI 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR 54 – The License Renewal Rule," Revision 3, issued March 2001; and Regulatory Guide 4.2S1, "Supplement 1 to Regulatory Guide 4.2, Preparation of Supplemental Environmental Reports for Applications to Renew Nuclear Power Plant Operating Licenses," issued September 2000.

Enclosure 1 to this letter provides a summary list of the regulatory commitments associated with this submittal. Enclosure 2 contains a compact disc (CD) copy of the entire LRA, including the Environmental Report (ER), and license renewal boundary drawings, which are included as an aid in the review of the LRA, but are not part of the formal application. Enclosure 3 contains a CD copy of the entire LRA, including the ER, to facilitate entry into the NRC's Agency Document Access and Management System (ADAMS). Enclosure 4 contains a CD containing the entire LRA, including the ER, suitable for posting on the NRC website.

To facilitate NRC review of the application, FENOC is providing separately 80 additional "Information Only" CD copies of the entire LRA, including the ER. These CDs are formatted in a manner that is consistent with guidance provided in NRC Regulatory Information Summary (RIS) 2001-05, "Guidance on Submitting Documents to the NRC by Electronic Information Exchange or on CD-ROM." The CDs contain hyperlinks within the application and between the application and the BVPS Unit 1 Updated Final Safety Analysis Report and the BVPS Unit 2 Updated Final Safety Analysis Report. Hyperlinks are also provided to the license renewal boundary drawings. These boundary drawings are included as an aid in the review of the LRA, and are not part of the application. Separate from this submittal, "Information only" copies of the license renewal drawings will be provided to the NRC.

Pursuant to discussions with the NRC license renewal staff, FENOC is in agreement that the NRC review process for the LRA will be approximately 28 months (resulting in anticipated renewed licenses for Units 1 and 2 in June 2007) versus the standard review schedule of 22 months. This extended review schedule allows additional time to address two BVPS schedule concerns. First, BVPS requests that the first site LRA audits or inspections begin no earlier than May 16, 2005. Performing the LRA audits or inspections on or after this date ensures that BVPS staff personnel will be available to fully support the NRC LRA audits or inspections following the Unit 2 refueling outage 2R11 (April 4 - May 6, 2005). Second, the extended schedule allows time for the BVPS Extended Power Uprate (EPU) License Amendment Requests (LAR) 302 (Unit 1) and 173 (Unit 2), submitted by FENOC Letter L-04-125, dated October 4, 2004, and related LARs previously submitted to the NRC, to be approved prior to "freezing" the current licensing basis as part of the NRC review process for the LRA. While the LRA was

written to bound the EPU analyses, but not rely upon approval of the EPU submittal for approval of the LRA, there are overlap issues related to changes in the current licensing basis between these two submittals that the extra review time will resolve.

The NRC has questioned whether piping and structural insulation should be included within the scope of license renewal during reviews of recent license renewal applications. During discussions between NRC license renewal staff and FENOC on January 13, 2005, FENOC informed the NRC that FENOC would perform additional research into the issue of piping and structural insulation, and provide the NRC with any changes to the LRA identified from that research. The insulation research will be completed and associated LRA changes will be identified and provided to the NRC by May 16, 2005.

If you have questions or require additional information, please contact Mr. Henry L. Hegrat, Supervisor - Licensing, at 330-315-6944.

I declare under penalty of perjury that the foregoing is true and correct. Executed on February 9, 2005.

Sincerely,



Richard G. Mende

Enclosures:

1. List of Regulatory Commitments
 2. Compact Disc (CD) Copy of BVPS License Renewal Application
 3. Compact Disc (CD) Copy of the BVPS License Renewal Application for ADAMS
 4. Compact Disc (CD) Copy of the BVPS License Renewal Application for Posting on the NRC Website
- c: Mr. T. G. Colburn, NRR Senior Project Manager
Mr. P. C. Cataldo, NRC Senior Resident Inspector
Mr. S. J. Collins, NRC Region I Administrator
Mr. D. A. Allard, Director BRP/DEP
Mr. L. E. Ryan (BRP/DEP)

ENCLOSURE 1

List of Regulatory Commitments

The following list identifies those actions committed to by FirstEnergy Nuclear Operating Company (FENOC) for Beaver Valley Power Station (BVPS) Unit Nos. 1 and 2 in this document. Any other actions discussed in the submittal represent intended or planned actions by FENOC. They are described only as information and are not regulatory commitments. Please notify Mr. Henry L. Hegrat, Supervisor - Licensing at 330-315-6944 of any questions regarding this document or associated regulatory commitments.

REGULATORY COMMITMENT	DUE DATE
1. Provide NRC with the results of the insulation research and the identified changes to the License Renewal Application.	BVPS-1: May 16, 2005 BVPS-2: May 16, 2005
2. Provide NRC with a detailed Reactor Vessel Lower Shell Plate (Unit 1 only) neutron fluence management description	BVPS-1: December 31, 2007 BVPS-2: N/A
3. Project the motor operated valve fatigue calculations (Unit 1 only) to the end of the period of extended operation, or manage the aging of the critical components	BVPS-1: January 29, 2016 BVPS-2: N/A
4. Provide NRC with inspection details for managing the aging of locations with environmentally assisted fatigue projected to result in a cumulative usage factor >1.0	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
5. Implement a 10 CFR 50, Appendix J Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
6. Implement an ASME Section XI, Subsection IWB, IWC, IWD Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
7. Implement an enhanced ASME Section XI, Subsection IWE Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
8. Implement an enhanced ASME Section XI, Subsection IWL Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027

REGULATORY COMMITMENT	DUE DATE
9. Develop and implement a Bolting Integrity Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
10. Implement an enhanced Boric Acid Corrosion Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
11. Develop and implement a Buried Piping and Tanks Inspection Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
12. Implement an enhanced Closed-Cycle Cooling Water Systems Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
13. Develop and implement an Electrical Cables and Connections not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
14. Implement an enhanced Electrical Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements used in Instrumentation Circuits Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
15. Develop and implement an Electrical Transmission Tower Inspection Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
16. Implement an enhanced Environmental Qualification (EQ) of Electric Components Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
17. Implement an enhanced Fire Protection Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
18. Implement an enhanced Fire Water System Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
19. Implement an enhanced Flow-Accelerated Corrosion Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027

REGULATORY COMMITMENT	DUE DATE
20. Implement an enhanced Flux Thimble Tube Examination Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
21. Implement an enhanced Fuel Oil Chemistry Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
22. Develop and implement an Inaccessible Medium-Voltage Cables not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
23. Implement an enhanced Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
24. Implement an enhanced Metal Fatigue of Reactor Coolant Pressure Boundary Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
25. Develop and implement a Nickel-Alloy Nozzles and Penetrations Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
26. Develop and implement a One-Time Inspection Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
27. Implement an enhanced Open-Cycle Cooling Water Systems Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
28. Implement an enhanced Periodic Surveillance and Preventive Maintenance Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
29. Develop and implement a Reactor Vessel Internals Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
30. Implement an enhanced Reactor Head Closure Studs Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027

REGULATORY COMMITMENT	DUE DATE
31. Implement an enhanced Reactor Vessel Surveillance Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
32. Implement an enhanced Settlement Monitoring (Unit 2 Only) Program as detailed in Appendix B of the License Renewal Application	BVPS-1: N/A BVPS-2: May 27, 2027
33. Implement an enhanced Steam Generator Tube Integrity Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
34. Implement an enhanced Structures Monitoring Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
35. Develop and implement a System Monitoring Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
36. Develop and implement a Thermal Aging Embrittlement of Cast Austenitic Stainless Steel Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027
37. Implement an enhanced Water Chemistry Program as detailed in Appendix B of the License Renewal Application	BVPS-1: January 29, 2016 BVPS-2: May 27, 2027

ENCLOSURE 2

Compact Disc (CD) Copy of BVPS License Renewal Application

ENCLOSURE 3

Compact Disc (CD) Copy of the BVPS License Renewal Application for ADAMS

ENCLOSURE 4

**Compact Disc (CD) Copy of the BVPS License Renewal Application
for Posting on the NRC Website**