



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 6, 2022

Mr. John J. Grabnar  
Site Vice President  
Energy Harbor Nuclear Corp.  
Beaver Valley Power Station  
Mail Stop P-BV-SSB  
P.O. Box 4, Route 168  
Shippingport, PA 15077-0004

SUBJECT: BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 - SUPPLEMENTAL  
INFORMATION NEEDED FOR ACCEPTANCE OF REQUESTED LICENSING  
ACTION RE: AMENDMENT REQUEST FOR FIRE PROTECTION PROGRAM  
CHANGES (EPID L-2022-LLA-0135)

Dear Mr. Grabnar:

By letter L-22-137 dated September 6, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22249A366), Energy Harbor Nuclear Corp. submitted a license amendment request for Beaver Valley Power Station, Units 1 and 2. The proposed amendment would modify the bases for two licensing actions that were credited during the transition to the risk-informed, performance-based fire protection program in license amendments 301 and 190 (ML17291A081). The purpose of this letter is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this amendment request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an application for an amendment to a license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed your application and concluded that the information delineated in the enclosure to this letter is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment in terms of regulatory requirements for the protection of public health and safety and the environment.

In order to make the application complete, the NRC staff requests that Energy Harbor Nuclear Corp. supplement the application to address the information requested in the enclosure by October 26, 2022. This will enable the NRC staff to begin its detailed technical review. If the information responsive to the NRC staff's request is not received by the above date, the

application will not be accepted for review pursuant to 10 CFR 2.101, and the NRC will cease its activities associated with the application. If the application is subsequently accepted for review, you will be advised of any further information needed to support the staff's detailed technical review by separate correspondence.

The information requested and associated time frame in this letter were discussed with your staff on October 5, 2022.

If you have any questions, please contact me at 301-415-0680 or [Brent.Ballard@nrc.gov](mailto:Brent.Ballard@nrc.gov).

Sincerely,

*/RA/*

Brent T. Ballard, Project Manager  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosure:  
Supplemental Information Needed

cc: Listserv



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ENERGY HARBOR NUCLEAR CORPORATION

BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2

LICENSE AMENDMENT REQUEST FOR FIRE PROTECTION PROGRAM CHANGES

DOCKET NOS. 50-334 AND 50-412

LICENSE NOS. DPR-66 AND NPF-73

EPID L-2022-LLA-0135

On September 6, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22249A366), Energy Harbor Nuclear Corporation (the licensee) submitted a License Amendment Request (LAR) for the Beaver Valley Power Station, Units Nos. 1 and 2 to make changes to the fire protection program (FPP). Specifically, the licensee requested a change to licensing action 11.05 to modify the halon system protecting Cable Tunnel 1-CV-3 from automatic and manual operation to manual operation only, and a change to licensing action 30, to allow the use of non-fire retardant treated lumber 6 in. X 6 in. or larger in the Intake Structure where currently only fire-retardant treated lumber is allowed to be used.

The Nuclear Regulatory Commission (NRC) staff reviewed the LAR for completeness of scope and sufficiency of information in accordance with its acceptance review procedures identified in NRC Office Instruction LIC-109, "Acceptance Review Procedures for Licensing Basis Changes" (ML20036C829). In regard to completeness of scope the NRC staff determined that there are significant evaluations missing from the LAR. In regard to sufficiency of information, the NRC staff determined that there are insufficiencies with the information and analyses provided in the LAR. Based on the above, the NRC staff determined that the LAR does not contain sufficient technical information, both in scope and depth, for the NRC staff to complete its detailed technical review and render, in an appropriate timeframe, an independent assessment of the LAR with regard to applicable regulatory requirements and the protection of public health, safety, and security. Therefore, the NRC staff requests the licensee provide the following information:

**Information Request 1**

On January 22, 2018 (ML17291A081), the NRC issued Amendment No. 301 to Renewed Facility Operating License (RFOL) No. DPR-66 for Beaver Valley, Unit No. 1, and Amendment No. 190 to RFOL No. NPF-73 for Beaver Valley, Unit No. 2. The Amendments revised the RFOLs for Beaver Valley, Unit Nos. 1 and 2, to establish and maintain a risk-informed, performance-based fire protection program in accordance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.48(c).

The Safety Evaluation for the above referenced Amendments stated that the applicability of licensing actions 11.05 and 30 to transition to a risk-informed, performance based FPP is based

Enclosure

on the previous NRC staff approvals and the licensee's statements that the bases remain valid. Nuclear Energy Institute (NEI) 04-02, "Guidance for Implementing a Risk-Informed, Performance Based Fire Protection Program Under 10 CFR 50.48(c)," indicates that the continued validity of licensing actions should be verified with the term "valid" meaning that the technical basis for approval of the original exemption or deviation still applies (e.g., plant modifications or other changes have not invalidated the assumptions or analysis that formed the basis for the exemption or deviation; new information has not surfaced that would invalidate the original finding).

In its LAR dated September 6, 2022 (ML22249A366), the licensee proposed changes that may result in the bases for both licensing actions to no longer remain valid.

Licensing action 11.05 is for the lack of 20 foot separation of cables and equipment and associated non-safety circuits of redundant trains in Cable Tunnel 1-CV-3. One of the bases to allow this lack of 20 foot separation was the installation of an automatically actuated total flooding halon fire protection system. The NRC safety evaluation report (SER) dated March 14, 1983, stated:

... Because of the restricted access, low in-situ combustibles and automatic suppression, there is reasonable assurance that one train of cables will remain free of fire damage.

Because the licensee is proposing to change the halon system actuation from automatic and manual, to manual only, the basis for prior approval may no longer remain valid.

Licensing action 30 is for the use of a fire detection system and 3 hour rated fire barriers in lieu of a fire protection sprinkler system in the Intake Structure. One of the bases to allow this substitution was that fire retardant treated wood would be the only wood allowed in the intake structure. The NRC SER dated June 6, 1979, stated:

The licensee will remove all unnecessary combustibles from the intake structure and will allow only fire retardant treated lumber to be used within the building.

Because the licensee is proposing to allow lumber larger than 6 in. X 6 in. in the Intake Structure to be non-fire retardant treated, the basis for prior approval may no longer remain valid.

The NRC staff requests that the licensee provide its evaluations of both licensing actions that discusses the continued validity of each considering the proposed changes. The evaluations should discuss the impact the proposed changes have on the assumptions or analysis that formed the basis for the previous approvals and why not having 20 foot separation in Cable Tunnel 1-CV-3 and why fire detection and 3 hours barriers in lieu of a sprinkler system in the Intake Structure are still acceptable in light of the proposed changes.

## **Information Request 2**

The amendment dated January 28, 2018, included a revised fire protection license condition in accordance with Regulatory Position 3.1 of Regulatory Guide 1.205, "Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants." The revised license condition states, in part:

Energy Harbor Nuclear Corp. shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the license amendment request dated December 23, 2013 (as supplemented by letters dated February 14, 2014; April 27, May 27, June 26, November 6, and December 21, 2015; February 24 and May 12, 2016; and January 30, April 21, June 23, August 22, October 25, and November 29, 2017), and as approved in the safety evaluation dated January 22, 2018.

Because the license condition includes the dates of the LAR, LAR supplements, and the NRC safety evaluation, any subsequent LAR submitted to revise the fire protection program must include a revised license condition to account for the subsequent LAR and the subsequent NRC safety evaluation (if approved). In its LAR dated September 6, 2022, the licensee did not include a revised license condition to account for its LAR and the resulting NRC safety evaluation (if approved).

The NRC staff requests that the licensee provide a revised license condition that accounts for its September 6, 2022, LAR and the resulting NRC safety evaluation (if approved).

### **Information Request 3**

In its LAR dated December 23, 2013 (ML14002A086), for its transition to a risk-informed, performance-based FPP, the licensee included LAR Attachment K, "Existing Licensing Action Transition" which discussed numerous licensing actions and their transition to the risk-informed, performance-based FPP. The licensee updated its LAR Attachment K in a letter dated April 21, 2017 (ML17111A882). In the discussion for licensing action 11.05 the licensee stated in part, that:

Conformance with the Appendix R exemption bases reached with the NRC regarding the Cable Tunnel (1-CV-3) lack of 20 foot separation (III.G.2 criteria) as stated in the NRC SERs dated March 14, 1983 was verified.

In the discussion for licensing action 30 the licensee stated in part, that:

The bases for previous acceptance remain valid as described in the applicable sections above.

Based on the licensee's proposed changes in its September 6, 2022, LAR, the above statements may need to be revised/clarified because the proposed changes may result in the bases for the licensing actions no longer remaining valid. In its LAR, the licensee did not indicate whether any changes were needed to LAR Attachment K.

The NRC staff requests that the licensee identify whether any changes are needed to LAR Attachment K and communicate the results of their review to the NRC staff. The licensee should also determine if any changes are needed to any other documents related to its risk-informed, performance based FPP because of the proposed changes and communicate those results to the NRC staff.

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**ADAMS Accession No.: ML22278A097**

<b>OFFICE</b>	NRR/DORL/LPL1/PM	NRR/DORL/LPL1-1/LA	NRR/DRA/APLB/BC
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<b>DATE</b>	10/04/2022	10/05/2022	10/04/2022
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<b>DATE</b>	10/05/2022	10/05/2022	10/06/2022

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