



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

March 15, 2023

Mr. Barry N. Blair  
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, UNITS 1 AND 2 - AUDIT PLAN TO  
SUPPORT LICENSE AMENDMENT REQUEST TO ADD AN ANALYTICAL  
METHODOLOGY TO THE CORE OPERATING LIMITS REPORT FOR FULL  
SPECTRUM LOSS OF COOLANT ACCIDENT (EPID NO. L-2022-LLA-0129)

Dear Mr. Blair:

By letter dated August 31, 2022, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22249A256), Energy Harbor Nuclear Corporation (the licensee), requested an amendment to Facility Operating License Nos. DPR-66 and NPF-73 for the Beaver Valley Power Station, Units 1 and 2. The proposed amendment would add the Westinghouse Electric Company LLC (Westinghouse) Topical Report WCAP-16996-P-A, Rev. 1, Realistic LOCA [loss of coolant] Evaluation Methodology Applied to the Full Spectrum of Break Sizes (FULL SPECTRUM LOCA Methodology), to the list of approved analytical methods used to determine the core operating limits as listed in Technical Specification 5.6.3, "Core Operating Limits Report (COLR)."

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the license amendment request (LAR) and determined that a regulatory audit would assist in the timely completion of the review. The NRC staff will conduct a regulatory audit to support its review in accordance with the enclosed audit plan. A regulatory audit is a planned activity that includes the examination and evaluation of primarily non-docketed information.

The audit will be conducted to increase the NRC staff's understanding of the LAR and identify information that will require docketing to support the NRC staff's regulatory findings. The audit will be conducted from March 27, 2023, to April 7, 2023, through an online portal established by the licensee.

If you have any questions, please contact me by telephone at 301-415-8004 or email to [Sujata.Goetz@nrc.gov](mailto:Sujata.Goetz@nrc.gov).

Sincerely,

*/RA/*

Sujata Goetz, Project Manager  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos.: 50-334 and 50-412

Enclosure:  
Audit Plan

cc: Listserv



UNITED STATES  
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REGULATORY AUDIT PLAN  
TO SUPPORT REVIEW OF LICENSE AMENDMENT REQUEST  
TO ADD AN ANALYTICAL METHODOLOGY TO THE CORE OPERATING LIMITS REPORT  
FOR A FULL SPECTRUM LOSS OF COOLANT ACCIDENT  
BEAVER VALLEY POWER STATION, UNITS 1 AND 2  
DOCKET NOS. 50-334 AND 50-412

1.0 BACKGROUND

By letter dated August 31, 2022, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22249A256), Energy Harbor Nuclear Corporation (the licensee), requested an amendment to Facility Operating License Nos. DPR-66 and NPF-73 for the Beaver Valley Power Station (Beaver Valley), Units 1 and 2. The proposed amendment would add the Westinghouse Electric Company LLC (Westinghouse) Topical Report WCAP-16996-P-A, Rev.1, Realistic LOCA [loss of coolant] Evaluation Methodology Applied to the Full Spectrum of Break Sizes (full spectrum LOCA methodology), to the list of approved analytical methods used to determine the core operating limits as listed in Technical Specification 5.6.3, "Core Operating Limits Report (COLR)."

The U.S. Nuclear Regulatory Commission (NRC) staff has determined the need for a regulatory audit to be conducted in accordance with the Office of Nuclear Reactor Regulation, Office Instruction LIC-111, "Regulatory Audits" (ML082900195), for the NRC staff to examine the licensee's non-docketed information with the intent to gain a better understanding of the license amendment request (LAR), to verify information, and to identify information that would require docketing to support the basis of the NRC staff's licensing decision.

2.0 REGULATORY AUDIT BASIS

The NRC staff will perform the audit to support its evaluation of whether the licensee's request meets the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.90.

3.0 INFORMATION AND OTHER MATERIAL NECESSARY FOR THE REGULATORY AUDIT

The NRC staff will review the licensee's calculations related to its full spectrum LOCA (FSLOCA) methodology to determine if the licensee needs to submit any additional information contained in the analyses performed in support of the requested change to support or develop conclusions for the staff's safety evaluation.

Enclosure

The NRC staff requests the licensee to have the following information readily available and accessible for the staff's review via an online portal as discussed in section 6.0. Plant-specific calculations associated with the FSLOCA analysis used in support of this amendment request, specifically:

- a. The large and small break LOCA scenarios that were analyzed, peak cladding temperature versus break area and maximum local oxidation calculations,
- b. Plant-specific uncertainty analysis for Beaver Valley,
- c. YDRAG and KCOS uncertainty parameters evaluation for determination of limiting break size, and
- d. Plant-specific analysis of the most severe uncover within Region I.

Based on the review of the documents provided, the NRC staff will determine whether it needs to request any additional documents to be made available on the portal or additional information needs to be submitted on docket for the staff to complete the review of the LAR.

#### 4.0 TEAM ASSIGNMENTS

The audit team will consist of the following NRC staff:

Fred Forsaty	Nuclear Engineer Team Leader	Fred.Forsaty@nrc.gov
Ravinder Grover	Safety and Plant System Engineer	Ravinder.Grover@nrc.gov
Sujata Goetz	Project Manager	Sujata.Goetz@nrc.gov

#### 5.0 LOGISTICS

The audit will be held from March 27 to March 31, 2023, via telephone and through an online portal established by the licensee. The online portal is discussed in section 6.0 of the audit plan.

The audit team will conduct a telephone conference with the licensee for the purposes of introducing the team, discussing the scope of the audit, and describing the information to be made available on the online portal. The audit team will also confirm with the licensee if the information made available on the online portal contains any sensitive or proprietary information. The audit team may request that representatives of the licensee answer any audit team questions during the audit related to information provided on the portal at a mutually agreeable day and time by telephone conference.

The NRC staff will not conduct formal entrance or exit meetings; however, the NRC's project manager will inform the licensee via routine communications when the staff no longer needs access to the portal information. The NRC staff does not foresee the need for an onsite visit or in-person discussions between the NRC and licensee staff at this time. However, if the need for a such a meeting is identified in the future, the audit plan will be revised, and the schedule for the audit will be adjusted accordingly. The NRC project manager will coordinate any changes to the audit schedule and location with the licensee.

#### 6.0 ONLINE PORTAL

The audit team will access the documents listed in section 3.0 above through an online portal established by the licensee that allows the audit team to access documents via the internet. The

following conditions associated with the online portal must be maintained throughout the duration that the audit team has access to the online portal:

- The online portal must be password-protected, and separate passwords will be assigned to the NRC staff and contractors who are participating in the audit.
- The online portal must be sufficiently secure to prevent the NRC staff and contractors from printing, saving, downloading, or collecting any information on the online portal.
- Conditions of use of the online portal must be displayed on the login screen and will require acknowledgement by each user.

Username and password information should be provided directly to the NRC staff. The NRC project manager will provide the licensee the names and contact information of the NRC staff who will be participating in the audit (see section 4.0). All other communications should be coordinated through the NRC project manager.

## 7.0 DELIVERABLES

An audit summary, which may be public, will be prepared within 60 days of the completion of the audit. If the NRC staff identifies information during the audit that is needed to support its regulatory decision, the NRC staff will issue requests for additional information to the licensee.

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DATED MARCH 15, 2023

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FForsaty, NRR  
RGrover, NRR

**ADAMS Accession No.: ML23072A384**

\*by email

OFFICE	NRR/DORL/LPL1/PM	NRR/DORL/LPL1/LA	NRR/DSS/SNSB/BC*
NAME	SGoetz	KZelevnock (KEntz for)	DWoodyatt
DATE	03/13/2023	03/14/2023	03/14/2023
OFFICE	NRR/DORL/LPL1/BC	NRR/DORL/LPL1/PM	
NAME	HGonzalez	SGoetz	
DATE	03/15/2023	03/15/2023	

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