



Energy Harbor Nuclear Corp.  
Beaver Valley Power Station  
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**Rod L. Penfield**  
Site Vice President, Beaver Valley Nuclear

724-682-5234

April 3, 2020  
L-20-118

10 CFR 50.55a

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

SUBJECT:  
Beaver Valley Power Station, Unit No. 2  
Docket No. 50-412, License No. NPF-73  
10 CFR 50.55a Request Number SRR-1, Revision 0, Snubber Testing

In accordance with 10 CFR 50.55a(z)(2), Energy Harbor Nuclear Corp. hereby requests Nuclear Regulatory Commission (NRC) staff approval of request SSR-1, Revision 0, that proposes to cancel operational readiness testing of Beaver Valley Power Station, Unit No. 2 (BVPS-2) snubbers during the upcoming refueling outage.

Because of the hardship produced by the recent pandemic and the resulting national state of emergency, Energy Harbor Nuclear Corp. is requesting expedited NRC approval of this request. The proposed alternative would cancel the tests until the next refueling outage, which is within the current fourth 10-year inservice test interval.

Request SSR-1 was discussed at a public pre-submittal meeting between Energy Harbor Nuclear Corp. and the NRC staff on March 31, 2020. To support the critical generation and startup of BVPS-2 from its scheduled spring 2020 refueling outage, Energy Harbor Nuclear Corp. requests approval of the proposed alternative by April 4, 2020.

The enclosed request identifies the affected components, applicable code requirements, and a description and basis for the proposed alternative.

There are no regulatory commitments contained in this submittal. If there are any questions, or if additional information is required, please contact Mr. Phil H. Lashley, Acting Manager, Nuclear Licensing and Regulatory Affairs, at (330) 315-6808.

Sincerely,

A handwritten signature in black ink, appearing to read "Rod L. Penfield".

Rod L. Penfield

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Enclosure:

Beaver Valley Power Station, Unit No. 2, 10 CFR 50.55a Request Number SSR-1,  
Revision 0

cc: NRC Region I Administrator  
NRC Resident Inspector  
NRR Project Manager  
Director BRP/DEP  
Site BRP/DEP Representative

Enclosure  
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Beaver Valley Power Station, Unit No. 2  
10 CFR 50.55a Request Number SSR-1, Revision 0

(5 Pages Follow)

Proposed Alternative  
In Accordance with 10 CFR 50.55a(z)(2)

--Hardship Without a Compensating Increase in Quality and Safety--

**1. ASME Code Components Affected**

Dynamic restraints (snubbers) of the Beaver Valley Power Station Unit No. 2 (BVPS-2) Snubber Testing Program as listed below:

Snubber Component Number	Snubber Model	Defined Test Plan Group (DTPG)	Component Classification	Service Life Expiration
2CCP-PSSP301	PSA-10	AB	Safety-Related	10/5/2030
2EDG-PSSP042A	PSA-3	DG	Safety-Related	9/25/2030
2FWS-PSSP002A	30 72 56 RC1-SP	FW	Safety-Related	10/1/2038
2FWS-PSSP002B	30 72 56 RC1-SP	FW	Safety-Related	10/1/2038
2MSS-PSSP108A	30 72 16 RC1-S5	MS-H	Safety-Significant	9/28/2038
2MSS-PSSP108B	30 72 16 RC1-S5	MS-H	Safety-Significant	9/30/2038
2MSS-PSSP103	PSA-100	MS-P10Y	Safety-Significant	10/15/2022
2MSS-PSSP456	PSA-1	MS-P10Y	Safety-Related	10/28/2027
2MSS-PSSP151B	PSA-10	MS-P6Y	Safety-Significant	11/30/2021
2CHS-PSSP024	30 18 56 RF1	RBX-L	Safety-Related	3/22/2034
2CHS-PSSP025	30 18 56 RF1	RBX-L	Safety-Related	3/9/2034
2BDG-PSSP947	30 18 56 RF1	RBX-L	Safety-Related	3/19/2034
2RCS-PSSP012A	PSA-10	RBX-P	Safety-Significant	4/12/2022*
2RCS-PSSP019X	PSA-10	RBX-P	Safety-Significant	10/21/2024
2RCS-PSSP891A	PSA-3	RBX-P	Safety-Significant	10/21/2024
2RCS-PSSP892A	PSA-10	RBX-P	Safety-Significant	10/1/2024
2SIS-PSSP208X	PSA-1	RBX-P	Safety-Related	2/18/2023*
2SIS-PSSP209A	PSA-1	RBX-P	Safety-Related	2/18/2023*
2RCS-SN21C12	12 X 6.25	S/G	Safety-Related	8/14/2027
2RSS-PSSP579A	30 18 56 RF1	SFGD-H	Safety-Related	9/28/2035
2RSS-PSSP579B	30 18 56 RF1	SFGD-H	Safety-Related	9/28/2035
2SIS-PSSP449A	PSA-1	SFGD-M	Safety-Related	9/26/2027
2SIS-PSSP449B	PSA-1	SFGD-M	Safety-Related	9/26/2027
2SWS-PSSP754Y	PSA-10	SFGD-M	Safety-Related	10/11/2023*

\* Section 5 contains additional detail regarding service life.

## **2. Applicable Code Edition and Addenda**

American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code, 2004 Edition through the 2006 Addenda.

## **3. Applicable Code Requirements**

ASME OM Code, Subsection ISTD 5200, "Inservice Operational Readiness Testing," states in part that:

Snubbers shall be tested for operational readiness during each fuel cycle. Tests are required to be in accordance with a specified sampling plan.

## **4. Reason for Request**

Subsection ISTD 5200 requires snubbers to be tested for operational readiness during each fuel cycle. The number of snubbers to be tested is based on a sample test plan defined by article ISTD-5260, "Testing Sample Plans." Within paragraph ISTD-5261, "Sample Plans," there are two sample plans offered, the 10 percent (%) testing sample plan or the 37 testing sample plan. For the upcoming BVPS-2 refueling outage (2R21), Energy Harbor Nuclear Corp. previously elected the 10% testing sample plan.

Energy Harbor Nuclear Corp. groups their BVPS-2 program snubbers into 11 DTPGs. The 10% test plan requires 10% of each DTPG to be tested for operational readiness during each fuel cycle. The table in Section 1 of this request represents the population of snubbers scheduled to be tested under the snubber test plan for the 2R21 refueling outage.

On March 13, 2020, the President of the United States declared a national emergency due to the spread and infectious nature of the Coronavirus-2019 (COVID-19) and resulting pandemic. The most recent guidance from the Centers for Disease Control and Prevention (CDC) includes recommendations for social distancing by maintaining approximately six feet from other personnel to limit the spread of the virus. On March 28, 2020, the Governor of Pennsylvania issued a Stay at Home order for Beaver County and the surrounding counties of Allegheny and Butler. Furthermore, on March 28, 2020, the Department of Homeland Security identified workers in the nuclear energy sector as essential critical infrastructure workers.

To prevent the spread of COVID-19 at BVPS, and to protect the health and safety of plant personnel while maintaining responsibilities to support critical infrastructure, Energy Harbor Nuclear Corp. intends to reduce the amount of personnel on-site, which will pose a hardship for completing the currently planned 2R21 refueling outage work scope. Energy Harbor Nuclear Corp. is also contingency planning in case some of its workforce becomes unavailable due to the COVID-19 outbreak. With the current work scope and potential loss of personnel, there is the potential that the company may not be able to complete the refueling outage in a timely manner, which could negatively impact critical infrastructure that is needed during this time.

Because of the hardships caused by the COVID-19, Energy Harbor Nuclear Corp. is requesting that operational readiness testing of snubbers scheduled for the 2R21 refueling outage be canceled. The hardship caused by the current national emergency is twofold:

1. Implementation of the test plan described in this request requires the support of contract personnel assembled from various locations. These individuals are supplied from companies with unique experience and qualifications in the testing and assessing of dynamic restraints including the operation of contractor provided test equipment. Contract individuals previously scheduled for support of the 2R21 refueling outage are cancelling their scheduled outage support. Since replacement personnel are not readily available this is considered an emergent condition with less than two weeks before the start of the 2R21 refueling outage. Staffing of the outage with qualified individuals is a hardship without a known resolution.
2. The staff of BVPS-2 contains critical personnel who are necessary to complete 2R21 refueling outage activities, return the unit safely to service, and to maintain the unit operational to meet its power demands. Bringing contract personnel on site with unknown medical history and their potential exposure to COVID-19 increases the risks of infecting the BVPS-2 personnel with COVID-19. It is an extreme hardship for BVPS-2 to quarantine incoming contractors for sufficient durations to ensure they are free of COVID-19 symptoms or to conduct testing of contractors for COVID-19. Without these safeguards, the BVPS-2 staff and surrounding community is at increased risk of contracting COVID-19 which has the potential of affecting the outage and future operation of the station.

##### **5. Proposed Alternative and Basis for Use**

As an alternative to Subsection ISTD-5200 of the OM Code, Energy Harbor Nuclear Corp. proposes to cancel the operational readiness testing of snubbers during the 2R21 refueling outage. Snubber testing to meet Subsection ISTD-5200 will resume during the next scheduled refueling outage 2R22.

The testing of snubbers in accordance with Subsection ISTD of the OM Code is a sampling test program that tests 10% of the snubbers in each of the DTPGs each refueling outage. To implement the 2R21 refueling outage test sample plan under the current conditions will result in undue hardship without providing a compensating increase to safety.

Based on the BVPS-2 snubber test history, the elimination of refueling outage 2R21 snubber testing will not impact the ability of the untested snubbers to perform their intended safety function until refueling outage 2R22 when testing will resume. Since 2009, there have been approximately 211 tests of program snubbers with only one snubber test failure that occurred in 2014. That test failure occurred in the feedwater DPTG and was captured in the BVPS-2 corrective action program. The evaluation of that failure concluded that the snubber, even though not meeting the as-found test acceptance criteria, did activate during testing and was fully functional in the as-found

condition. The snubber population at BVPS-2 has been operating at a high level of performance for the past ten years and this performance provides reasonable assurance that a significant decline of performance between the 2R21 and 2R22 refueling outages is unlikely.

There have been no dynamic events or transients during operation since 2R20 that might affect snubber performance or place a need for added emphasis on a specific snubber or group of snubbers.

There is one recent internal operating experience that applies to a snubber included in Section 1 (2RCS-SN21C12). IRIS OE 475511 provide operating experience regarding the large bore snubbers at Beaver Valley Power Station, Unit No. 1, and BVPS-2. The piston seal integrity testing delinquency is being tracked via the corrective action process. An earlier Information Notice (IN 2015- 09) that described the impact of grease degradation due to inadequate service life monitoring has not been an issue at BVPS-2 as grease is regularly monitored and replaced in accordance with service life milestones.

There is one Title 10 Code of Federal Regulations, Part 21 notification with the potential of affecting snubbers within the 2R21 refueling outage sample test plan. This is in relation to a batch of hydraulic fluid that was supplied to several nuclear stations. The evaluation of the related notification for BVPS-2 determined the hydraulic fluid anomaly would not present a safety hazard as the hydraulic fluid was only used in a test machine and does not impact any installed snubbers at BVPS-2.

As evidenced by the BVPS-2 operational readiness test history during the past 10-years, the snubber population is well maintained within the examination, testing and service life monitoring program and is performing well in their environment and operating conditions. There are no planned changes to the snubber environments or operating conditions that would affect the snubbers differently than represented in past surveillance testing.

This request has no impact to the visual examination program (ISTD-4250) because implementation of Code Case OMN-13 provides for a ten-year visual examination interval. The ten-year visual examination interval includes the 2R22 refueling outage; therefore, visual examinations not performed in the 2R21 refueling outage may be completed in the 2R22 refueling outage.

This request does not impact the service life monitoring program. Within the provisions of ASME OM Code Subsection ISTD-6200, "Service Life Evaluation," service life is evaluated each fuel cycle and may be increased or decreased, if warranted. Activities associated with service life monitoring scheduled for the 2R21 refueling outage may be evaluated by Energy Harbor Nuclear Corp. and where warranted and supported by technical data rescheduled for the 2R22 refueling outage. Snubbers denoted by an asterisk (\*) in Section 1 are snubbers that require Service Life Maintenance to be performed during 2R21 to extend service life to the date listed. If maintenance is

unsuccessful, corrective actions will be performed as appropriate to ensure service life is not exceeded.

Based on the information provided above, snubber testing has demonstrated that the snubber population at BVPS-2 is reliable, and there have been no dynamic events or transients at BVPS-2 or recent operating experience that might affect snubber performance. Therefore, the proposed Subsection ISTD-5200 alternative to cancel snubber operational readiness testing during the 1R21 refueling outage and resume this testing during the 2R22 refueling outage provides reasonable assurance that the snubbers are operationally ready.

#### **6. Duration of Proposed Alternative**

The proposed alternative is requested for use during the BVPS-2 fourth 10-year inservice test interval. The proposed alternative would cancel operational readiness testing of the affected snubbers during refueling outage 2R21. Operational readiness testing of snubbers in accordance with Subsection ISTD-5200 would resume in the refueling outage 2R22.