



Energy Harbor Nuclear Corp.
Perry Nuclear Power Plant
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January 15, 2021
L-21-028

10 CFR 50.55a

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

Subject:
Perry Nuclear Power Plant
Docket No. 50-440, License No. NPF-58
10 CFR 50.55a Request Number SR-2, Revision 0, Snubber Testing Extension

In accordance with 10 CFR 50.55a(z)(2), Energy Harbor Nuclear Corp. hereby requests Nuclear Regulatory Commission (NRC) staff approval of request SR-2, Revision 0, that proposes a one-time extension of operational readiness testing for certain Perry Nuclear Power Plant snubbers scheduled for the upcoming spring 2021 refueling outage. The enclosed request identifies the affected components, applicable code requirements, and a description and basis for the proposed alternative.

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. To support the critical generation and startup of Perry Nuclear Power Plant from its scheduled spring 2021 refueling outage, Energy Harbor Nuclear Corp. requests approval of the proposed alternative by February 12, 2021.

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, Manager, Fleet Licensing, at (330) 696-7208.

Sincerely,

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

Rod L. Penfield

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Enclosure:

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cc: NRC Region III Administrator
NRC Resident Inspector
NRR Project Manager

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(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 Perry Nuclear Power Plant Unit 1 (PNPP) Snubber Testing Program as listed below:

PSA Mechanical Snubbers:
Safety Significant Snubbers - Subject to the 37 Plan

Snubber Component Number	Snubber Model
1B21-H0013	PSA-35
1B21-H0119 (NE)	PSA-35
1B21-H0410	PSA-35
1C11-H0693	PSA-1/4
1C41-H5020	PSA-1/4
1E12-H0345	PSA-3
1E12-H0383	PSA-1
1E12-H0410	PSA-35
1E12-H0422	PSA-3
1E12-H0542	PSA-1/2
1E12-H0730	PSA-35
1E12-H0760	PSA-1
1E12-H0762	PSA-1
1E12-H2299	PSA-1/2
1E21-H0008	PSA-10
1E22-H0053	PSA-3
1E22-H0060	PSA-10
1G33-H0219	PSA-10
1G41-H0070	PSA-1
1G41-H0151 (Bot)	PSA-3
1G41-H5001 (Top)	PSA-3
1N11-H0284	PSA-35L
1N27-H0224	PSA-35
1P42-H0051	PSA-3
1P42-H0388	PSA-1
1P45-H0132 (N)	PSA-3
1P45-H0183	PSA-10
1P45-H0353 (TOP)	PSA-3

Lisega Hydraulic Snubbers:
Safety Significant Snubbers Subject to the 10% Plan

Snubber Component Number	Snubber Model
1E12-H0109	304256RE1
1E12-H0790	304256RE1
1E21-H0039	304256RE1
1E21-H0050 (W)	306256RE2
1E51-H0072	305253RF3

E-Systems Hydraulic Snubbers:
Safety Significant Snubbers - Subject to the 10% Plan

Snubber Component Number	Snubber Model
1B21-G7080-S104A	50 KIP
1B33-G7068B-S373B	100 KIP
1E12-H0316	20 KIP
1N27-H0001	50 KIP
1N27-H0018	70 KIP
1N27-H0019	70 KIP

2. Applicable Code Edition and Addenda

American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code, Subsection ISTD, 2012 Edition.

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 PNPP spring 2021 refueling outage, Energy Harbor Nuclear Corp. utilizes both the 37 testing sample plan and the 10% plan. Energy Harbor Nuclear Corp. groups their PNPP program snubbers into three Defined Test Plan Groups (DTPGs), PSA mechanical snubbers (37 plan), Lisega hydraulic snubbers (10% plan), and E-systems hydraulic snubbers (10% plan). The 37 plan requires 37 randomly selected snubbers from the DTPG, while 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 spring 2021 refueling outage, excluding snubbers that will still be monitored for or changed in support of service life monitoring. There are 909 PSA mechanical snubbers subject to the 37 plan. Of the 37 randomly selected PSA mechanical snubbers, 28 are listed in Section 1 and the remaining nine snubbers were excluded. There are 82 Lisega hydraulic snubbers subject to the 10% plan. Of the nine selected Lisega hydraulic snubbers, five are listed in Section 1 and the remaining four snubbers were excluded. There are 53 E-Systems hydraulic snubbers subject to the 10% plan, and the six selected snubbers are listed in Section 1.

To prevent the spread of COVID-19 at Perry Nuclear Power Plant, 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 during the spring 2021 refueling outage, including a reduction of seven in the number of contractor personnel who come to the site to perform snubber examination and testing. This personnel reduction will pose a hardship for completing the currently planned spring 2021 refueling outage work scope.

Because of the hardships caused by the COVID-19, Energy Harbor Nuclear Corp. is requesting a one-time extension of operational readiness testing of snubbers scheduled for the spring 2021 refueling outage.

5. Proposed Alternative and Basis for Use

As an alternative to Subsection ISTD-5200 of the ASME OM Code, Energy Harbor Nuclear Corp. proposes a one-time extension of operational readiness testing of snubbers scheduled for the spring 2021 refueling outage. Snubber testing to meet Subsection ISTD-5200 will resume during the next scheduled refueling outage in the spring of 2023 with sampling performed in accordance with the applicable 10% or 37 testing sample plan. The testing of snubbers in accordance with Subsection ISTD of the ASME OM Code is a sampling test program that tests 37 of the PSA DTPG snubbers and 10% of the Lisega and E-Systems DTPG snubbers each refueling outage. To implement the spring 2021 refueling outage test sample plan under the current conditions will result in undue hardship without providing a compensating increase to safety.

Based on the PNPP snubber test history, the elimination of spring 2021 refueling outage snubber testing will not impact the ability of the untested snubbers to perform their

intended safety function until the 2023 refueling outage when testing will resume. Since 2011, there have been approximately 260 tests of program snubbers with only four snubber test failures related to operational readiness testing. These test failures occurred in the PSA DTPG and were captured in the PNPP corrective action program. These snubbers were replaced at the time and functionally tested the following refuel outage to ensure there was not a repeat failed condition. The snubber population at PNPP 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 2021 and 2023 refueling outages is unlikely.

There have been no dynamic events or transients during operation since spring 2019 refueling outage that might affect snubber performance or place a need for added emphasis on a specific snubber or group of snubbers.

As evidenced by the PNPP 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 within 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.

The visual examination interval specified in ASME OM Code Table ISTD-4252-1, "Visual Examination Table," has been extended for applicable PNPP snubbers to at least once every 10 years in accordance with ASME Code Case OMN-13. Since the ten-year visual examination interval began in May 2019, visual examinations can be performed at any time during the next ten years to meet the visual examination requirement. No periodic snubber visual examinations will be performed during the spring 2021 refueling outage, and no alternatives to visual examination requirements are proposed.

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 spring 2021 refueling outage will still be performed to meet operational requirements until the next refueling outage. 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 PNPP is reliable, and there have been no dynamic events or transients at PNPP or recent operating experience that might affect snubber performance. Therefore, the proposed Subsection ISTD-5200 alternative for a one-time extension of snubber operational readiness testing for the spring 2021 refueling outage with testing resuming in the 2023 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 PNPP fourth 10-year in-service test interval. The proposed alternative would be a one-time extension of operational readiness testing of the affected snubbers (listed in Section 1 above) during the spring 2021 refueling outage. Operational readiness testing of snubbers in accordance with Subsection ISTD-5200 would resume in the 2023 refueling outage.