

From: Wall, Scott
Sent: Thursday, March 4, 2021 9:37 AM
To: Lashley, Phil H (EH); Morgan, Jeffrey D.
Cc: Dickson, Billy; Ospino, Ty; Ruiz, Robert
Subject: Perry Nuclear Power Plant - Verbal Authorization of Request VR-8, Revision 0 (EPID No. L-2021-LLR-0012)

Dear Mr. Lashley:

By telephone conversation on March 3, 2021, the U.S. Nuclear Regulatory Commission (NRC) staff provided a verbal authorization to Energy Harbor Nuclear Corp (the licensee) for the alternative **VR-8, Revision 0**, for Perry Nuclear Power Plant (Perry) proposing one-time extensions of testing for certain Perry valves scheduled for the upcoming spring 2021 refueling outage. The NRC staff's evaluation and verbal authorization is repeated at the end of this e-mail.

The following NRC and licensee personnel participated in the conference call:

NRC

Nancy Salgado – Chief, Plant Licensing Branch III
Angela Buford – Chief, Mechanical Engineering and Inservice Testing Branch
Bob Wolfgang – Senior Mechanical Engineer
Yuken Wong – Senior Mechanical Engineer
Gurjendra Bedi – Mechanical Engineer
Ian Tseng – Mechanical Engineer
Jason Huang – Mechanical Engineer
Michael Farnan – Mechanical Engineer
Nicholas Hansing – Mechanical Engineer
Scott Wall – Senior Project Manager

Energy Harbor Nuclear Corp

Rod Penfield – Site Vice President
Darin Benyak – Senior Vice President, Fleet Nuclear Support
Alexandra Zelaski – Manager, Nuclear Work Control
Dave Olderman – Supervisor, Nuclear Engineering Programs
Justin Truxall – Nuclear Engineer
Jacob Zbiegien – Nuclear Engineer
Jeff Morgan – Licensing Engineer
Dave McCreary – Licensing Engineer
Ken McMullen – Licensing Engineer
Phil Lashley – Fleet Licensing Manager

Please contact me if you have any questions.

Scott P. Wall, LSS BB, BSP

Senior Project Manager
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
301.415.2855
Scott.Wall@nrc.gov

VERBAL AUTHORIZATION BY THE NRC OFFICE OF NUCLEAR REACTOR REGULATION
FOR 10 CFR 50.55a REQUEST VR-8, REVISION 0
VALVE TEST FREQUENCY EXTENSION
ENERGY HARBOR NUCLEAR CORP.
PERRY NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-440
EPID NO. L-2021-LLR-0012
MARCH 3, 2021

Technical Evaluation read by Angela Buford, Branch Chief, Mechanical Engineering and Inservice Testing Branch, Division of Engineering and External Hazards, NRC Office of Nuclear Reactor Regulation

By letter dated on February 8, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21039A409), [Energy Harbor Nuclear Corp.] the licensee proposed to the [U.S. Nuclear Regulatory Commission] NRC, an alternative to specific inservice testing requirements in the [American Society of Mechanical Engineers] ASME [*Operation and Maintenance of Nuclear Power Plants, Division 1, OM Code: Section IST*] OM Code, 2012 Edition, for [Perry Nuclear Power Plant, Unit No. 1] Perry, pursuant to [Title 10 of the *Code of Federal Regulations*, Part 50, Section 55a] 10 CFR 50.55a.

In particular, the licensee submitted 10 CFR 50.55a Request VR-8, Revision 0, requesting NRC authorization to extend the performance of diagnostic testing for two specific relief valves at Perry listed in the request from the upcoming refueling outage 1RF18, scheduled to begin on March 7, 2021, to the next refueling outage 1RF19, scheduled to occur in the spring of 2023. The NRC staff's evaluation described in this Verbal Authorization applies only to the two specific relief valves at Perry listed in the submittal dated February 8, 2021.

In that submittal, the licensee provided justification that compliance with the provisions in ASME OM Code, Mandatory Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants," paragraph I-1390, "Test Frequency, Classes 2 and 3 Pressure Relief Devices That Are Used for Thermal Relief Application" as incorporated by reference in 10 CFR 50.55a, to conduct diagnostic testing of the relief valves would result in a hardship without a compensating increase in the level of quality and safety in accordance with 10 CFR 50.55a(z)(2), if performed at this time. For example, the licensee indicated that the performance of diagnostic testing of relief valves at this time would represent a hardship during [Coronavirus Disease 2019] COVID-19 outbreak, because the licensee intends to reduce the amount of personnel on site to prevent the spread of COVID-19 at Perry. Additionally, due to the COVID-19 pandemic and personnel working remotely, the production schedule of the vendor providing the valves to be used as pre-tested replacements has been negatively affected. This impact will challenge the acquisition of qualified replacement relief valves has been challenged and these valves may not be available for the spring 2021 refueling outage.

In its request, the licensee indicated that two of the relief valves 1E12-F025B and 1P45-F571A listed in its submittal are tested in accordance with ASME OM Code, Mandatory Appendix I, paragraph I-1390, which requires all Class 2 and 3 relief devices used in thermal relief application shall be tested every 10 year, unless performance data indicate more frequent testing is necessary. With regards to relief valve 1E12-F025B, the licensee reported that this relief valve and identical valves in similar service conditions, in all but one test over the last

20 years, the valves opened within 110 percent of the 485 pounds per square inch gauge (psig) pressure setpoint. Further, the licensee stated that the as-found inspection reports provided by the refurbishment vendor over the last 20 years and prepared prior to performing valve maintenance do not show corrosion or bonding to be an issue in the valve internals.

With respect to relief valve 1P45-F571A, the licensee stated that this relief valve is not expected to be called upon for thermal relief or overpressure protection functions due to normal system operating conditions. In the last 20 years, valve 1P45-F571A was tested three times and had acceptable performance with each test.

Based on the information described above for the two specific relief valves at PNPP, identified in the licensee's request, the NRC staff finds that (1) previous testing of these relief valves indicate their acceptable historical performance; (2) no current concerns with the performance of these relief valves have been identified; (3) periodic maintenance activities are not modified by this request; and (4) a hardship exists for the performance of team-oriented testing of these relief valves at this time that would be contrary to the health and safety of plant personnel.

Therefore, the NRC finds that the licensee's proposed alternative for a one-time extension of the diagnostic testing interval for the two specified relief valves, submitted in accordance with 10 CFR 50.55a(z)(2), will provide reasonable assurance that these relief valves will be operationally ready to perform their safety functions until the next refueling outage, scheduled for the spring of 2023. All other ASME OM Code requirements as incorporated by reference in 10 CFR 50.55a for which relief or an alternative was not specifically requested and approved as part of this request on February 8, 2021, remain applicable. If the licensee identifies a performance issue with any of these relief valves, the licensee will be expected to take action to implement the requirements of its Technical Specifications. This authorization will remain in effect until restart from the next refueling outage for Perry, scheduled for the spring of 2023. The licensee's examination and testing plans for these relief valves may be adjusted as appropriate by any subsequent NRC-authorized alternative requests.

Authorization read by Nancy Salgado, Chief of the Plant Licensing Branch III, Office of Nuclear Reactor Regulation

As Chief of the Plant Licensing Branch III, Office of Nuclear Reactor Regulation, I agree with the conclusions of the Mechanical Engineering and Inservice Testing Branch.

The NRC staff concludes that the licensee's proposed alternative, under Request Number VR-8, Rev. 0, for Perry will provide reasonable assurance of adequate safety until the next refueling outage, scheduled for the spring of 2023, when diagnostic testing for the two specified relief valves will be performed.

The NRC staff finds that complying with the diagnostic testing requirements of the ASME OM Code, Mandatory Appendix I, paragraph I-1390, as required by 10 CFR 50.55a, for the valves within the scope of this alternative request would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2).

Therefore, effective March 3, 2021, the NRC authorizes the use of Request Number VR-8, Rev. 0, until completion of the next refueling outage, scheduled for the spring of 2023. All other

requirements in ASME OM Code for which relief or an alternative was not specifically requested and approved in this alternative request remain applicable.

This verbal authorization does not preclude the NRC staff from asking additional clarification questions regarding Request Number VR-8, Rev. 0, while subsequently preparing the written safety evaluation.

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Recipients:

"Dickson, Billy" <Billy.Dickson@nrc.gov>
Tracking Status: None
"Ospino, Ty" <Tyrone.Ospino@nrc.gov>
Tracking Status: None
"Ruiz, Robert" <Robert.Ruiz@nrc.gov>
Tracking Status: None
"Lashley, Phil H (EH)" <phlashley@energyharbor.com>
Tracking Status: None
"Morgan, Jeffrey D." <jdmorgan@energyharbor.com>
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