Energy Harbor Nuclear Corp.
Beaver Valley Power Station
P. O. Box 4
Shippingport, PA 15077

Rod L. Penfield
Site Vice President, Beaver Valley Nuclear
724-682-5234

April 1, 2020
L-20-114

10 CFR 50.55a

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

SUBJECT:
Beaver Valley Power Station, Units No. 2
Docket No. 50-412, License No. NPF-73
10 CFR 50.55a Request Number: VRR5, Revision 0, Relief Valve Test Frequency

In accordance with the provisions of 10 CFR 50.55a(z)(2), Energy Harbor Nuclear Corp. hereby requests Nuclear Regulatory Commission (NRC) staff approval of request VRR5, Revision 0, which proposes an alternative to relief valve testing frequency for the Beaver Valley Power Station, Unit 2 (BVPS-2).

As a result of the hardship produced by the recent pandemic and the resulting national state of emergency, Energy Harbor Nuclear Corp. is requesting exigent NRC approval of VRR5 for BVPS-2. The proposed alternative would be implemented during the twenty-second operating cycle of BVPS-2 while in the fourth 10-year in-service testing interval, which began on September 20, 2017 and ends on September 19, 2027. To support the startup and critical generation of BVPS-2 from its scheduled refuel outage, Energy Harbor Nuclear Corp. requests approval of the proposed alternative by April 8, 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 additional information is required, please contact Mr. Phil H. Lashley, Acting Manager – Nuclear Licensing and Regulatory Affairs, at (330) 315-6808.

Sincerely,

Rod L. Penfield

Enclosure:
Beaver Valley Power Station, Unit No. 2, 10 CFR 50.55a Request Number VRR5, Revision 0

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

Enclosure
L-20-114

Beaver Valley Power Station, Unit No. 2
10 CFR 50.55a Request Number VRR5, Revision 0

(4 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

2RHS*RV721B,	Residual heat removal system (RHS) Train B Supply Relief (Class 2)
2CHS*RV160,	Chemical and volume control system (CHS) Loop Fill Header Relief (Class 2)
2SIS*RV175,	Safety injection system, (SIS) Relief On Back Leakage Line Outside Rx CNMT (Class 2)
2RSS*RV156B,	Recirculation Spray Pump (RSS) 21B Discharge Valve Relief (Class 2)
2CCP*RV109,	Component cooling water system (CCP) Seal Water Heat Exchanger Relief (Class 3)
2CCP*RV119B,	Component cooling water RHS Heat Exchanger Cooling Water Return Relief (Class 3)
2CCP*RV139E,	Component cooling water Containment Penetration Cooling Coil No.40 Relief (Class 3)

2. Applicable Code Edition and Addenda

American Society of Mechanical Engineers (ASME), Code for Operations and Maintenance (OM Code), 2004 Edition with Addenda through OMb-2006.

3. Applicable Code Requirements

Mandatory Appendix I, 1-1350, “Test Frequency, Classes 2 and 3 Pressure Relief Valves”.
(a) 10-year Test Interval. Classes 2 and 3 pressure relief valves, with the exception of PWR main steam safety valves, shall be tested every 10 years, starting with initial electric power generation. No maximum limit is specified for the number of valves to be tested during any single plant operating cycle; however, a minimum of 20% of the valves from each valve group shall be tested within any 48-month interval. This 20% shall consist of valves that have not been tested during the current 10-year test interval, if they exist. The test interval for any individual valve shall not exceed 10 years. PWR main steam safety valves shall be tested in accordance with 1-1320.

Mandatory Appendix I, I-1390, "Test Frequency, Classes 2 and 3 Pressure Relief Devices That Are Used for Thermal Relief Application." Tests shall be performed on all Classes 2 and 3 relief devices used in thermal relief application every 10 years, unless performance data indicate more frequent testing is necessary. In lieu of tests the Owner may replace the relief devices at a frequency of every 10 years, unless performance data indicate more frequent replacements are necessary.

4. Reason for Request

Beaver Valley Power Station Unit 2 (BVPS-2) is scheduled to start its 21st refueling outage (2R21) on April 12, 2020. Seven (7) relief valves that are at the end of their required test intervals as specified by the ASME, OM Code, Appendix I, Paragraphs I-1350(a) and I-1390 are required to be tested during this 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) virus 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.

Therefore, BVPS is requesting relief to extend the testing of the above BVPS-2 relief valves to the next Unit 2 refueling outage (2R22) set to begin on October 10, 2021. This is being requested in order to reduce exposure of maintenance and testing personnel and personnel necessary for critical operations, to the COVID-19 virus.

5. Proposed Alternative and Basis for Use

RHS Train B Supply Relief [2RHS*RV721B] was last tested on February 17, 2011. There are two other valves in this grouping with the latest valve tested on November 13, 2018. This valve is required to be tested every 10 years, and 1 of 3 valves in the group must also be tested every 48 months to meet the 20% requirement. Based on the above, the limit date for testing this relief valve would be February 17, 2021. To extend the interval to 2R22, approximately 8 months of grace will be needed. This relief valve has passed its setpoint test acceptably six times over the past 31 years, showing good performance.

The remaining relief valves below are all thermal relief valves. Each of these relief valves was last tested during 2R15 in the spring of 2011 between February 22, 2011 and April 3, 2011. Each of these valves is required to be tested every 10 years. Based on this, the limit date for testing each of these relief valves would be in the spring of 2021. In order to extend each of their intervals to 2R22, an additional 6 ½ to 8 ½ months of grace would be needed.

[2CHS*RV160] failed its setpoint test high in 2011. It was refurbished, retested and re-installed on April 4, 2011. Prior to that it had passed its setpoint test acceptably five times over the past 31 years, showing good performance. Its next due date is April 4, 2021, and it needs approximately 6½ months of grace until 2R22.

[2SIS*RV175] has passed its setpoint test acceptably five times over the past 28 years, showing good performance. It was last tested on March 15, 2011. Its next due date is March 15, 2021, and it needs approximately 7 months of grace until 2R22.

[2RSS*RV156B] failed its setpoint test high in 1995 and was refurbished, retested, and re-installed. It has passed its setpoint test acceptably two additional times since then showing good performance. It was replaced by a new valve tested on February 24, 2011. Its next due date is February 24, 2021, and it needs approximately 8 months of grace until 2R22.

[2CCP*RV109] failed its setpoint test high in 2005 and was replaced with a new valve. The new valve has passed its setpoint test acceptably one additional time since then, showing good performance. It was last tested on March 21, 2011. Its next due date is March 21, 2021, and it needs approximately 7 months of grace until 2R22.

[2CCP*RV119B] failed its last setpoint test high in 2011 and was replaced with a new valve tested on February 14, 2011. Its next due date is February 14, 2021, and it needs approximately 8 months of grace until 2R22.

[2CCP*RV139E] failed its last setpoint test high in 2011 and was replaced with a new valve, which was tested on February 2, 2011. Its next due date is February 2, 2021, and it needs approximately 8½ months of grace until 2R22.

ASME OM Code Case OMN-20, "Inservice Test Frequency" was approved by the NRC for use in the latest revision of Regulatory Guide 1.192, "Operation and Maintenance Code Case acceptability, ASME OM Code" (Rev. 2 dated March 2017), as an acceptable OM Code Case to comply with 10 CFR 50.55a(f) requirements as incorporated by reference into 10 CFR 50.55a.

The OM Code Case code case allows up to 6 months of grace for testing periods of greater than or equal to two years. However, BVPS-2 requires up to an additional 2½ months of grace beyond what OMN-20 provides to defer testing of these relief valves from 2R21 to 2R22. This presents a hardship due to the COVID-19 virus.

In addition, the test results for each of the relief valves shows limited time-related degradation or set point drift and demonstrates that it is acceptable to extend the test interval to align with 2R22.

6. Duration of Proposed Alternative

The proposed alternative is requested for use during the twenty-second operating cycle of BVPS-2 while in the fourth 10-year IST interval.