



**FEB 05 2010**

LR-N10-0032

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

Hope Creek Nuclear Generating Station  
Facility Operating License No. NPF-57  
NRC Docket No. 50-354

Subject: **Request for Relief from ASME OM Code Test Intervals for Pressure Relief Valves**

In accordance with 10 CFR 50.55a, "Codes and Standards," PSEG Nuclear LLC (PSEG), hereby requests NRC approval of proposed Relief Request V-05 to extend the test intervals for certain Class 2 pressure relief valves on a one-time basis until restart after refueling outage R16, which is currently scheduled to begin in October 2010.

PSEG requests approval of the proposed request by April 28, 2010 to permit continued plant operation until R16. The Code of Record for the current third interval is American Society of Mechanical Engineers (ASME) / American National Standards Institute, "Code for Operation and Maintenance of Nuclear Power Plants" (ASME OM Code), 2001 Edition through 2003 Addenda.

The proposed relief request is provided in the attachment to this letter.


There are no commitments contained in this letter.

A047  
NRC

FEB 05 2010

If you have any questions or require additional information, please contact Mrs. Erin West at 856-339-5411.

Sincerely,



Jeffrie Keenan  
Manager- Licensing  
PSEG Nuclear, LLC

Attachment:

1. Relief Request V-05

cc: S. Collins, Administrator, Region I, NRC  
R. Ennis, Project Manager - USNRC  
NRC Senior Resident Inspector Hope Creek  
P. Mulligan, Manager IV, NJBNE  
T. Devik – Hope Creek Commitment Tracking Coordinator  
L. Marabella - Corporate Commitment Tracking Coordinator

**ATTACHMENT 1**

**Hope Creek Generating Station**

**Facility Operating License No. NPF-57  
NRC Docket No. 50-354**

**Request for Relief from ASME OM Code Test Intervals for Pressure Relief Valves**

|      |   |
|------|---|
| V-05 | Low Pressure Coolant Injection (LPCI) System Relief Valve Test Interval |
|------|---|

Hope Creek Generating Station Inservice Test Program  
10 CFR 50.55a Request V-05

Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(ii)  
Hardship or Unusual Difficulty without Compensating  
Increase in Level of Quality or Safety

**1. ASME Code Component(s) Affected**

Hope Creek Generating Station (HCGS) Low Pressure Coolant Injection (LPCI) System Relief Valves in Table 1 below.

**Table 1**

| Component No. | Description                     | Code Class |
|---------------|---------------------------------|------------|
| 1BCPSV-F025B  | LPCI Loop B Header Relief Valve | 2          |
| 1BCPSV-F025D  | LPCI Loop D Header Relief Valve | 2          |

**2. Applicable Code Edition and Addenda**

For the current third 10-year inservice testing (IST) interval, American Society of Mechanical Engineers (ASME) / American National Standards Institute, "Code for Operation and Maintenance of Nuclear Power Plants" (ASME OM Code), 2001 Edition through 2003 Addenda. The third interval began on December 21<sup>st</sup>, 2006 and will end on December 20<sup>th</sup>, 2016.

**3. Applicable Code Requirement**

ASME OM Code, 2001 Edition through 2003 Addenda, ISTC-5240, "Safety and Relief Valves," requires safety and relief valves to meet the inservice test requirements of Mandatory Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants." Section I-1350(a) requires Class 2 and 3 pressure relief valves, with the exception of pressurized water reactor main steam safety valves, to be tested every 10 years, with a minimum of 20% of the valves from each valve group 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. Section 4.3.5 of NUREG-1482, Rev. 1 states in determining the minimum acceptable sample size, fractions of valve numbers resulting from calculating the numbers of valves to be tested are to be rounded to the next higher whole number. Additionally, I-1390 requires Class 2 and 3 thermal relief valves to be tested every 10 years.

Hope Creek Unit 1 Inservice Test Program  
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**4. Reason for Request**

During a review of the HCGS Relief Valve section of the IST program in July-2009, PSEG identified discrepancies in the scheduling of periodic relief valve testing. In January 2010, PSEG discovered that two of the previously identified relief valves were improperly categorized as being able to be tested while the station is online. As a result, the 10 year applicable ASME OM Code requirements for testing will be exceeded after April 28, 2010, six months short of R16. PSEG documented the scheduling discrepancies in the corrective action program and performed a review to confirm the extent of condition for relief valve testing issues for Hope Creek Generating Station.

In accordance with 10 CFR 50.55a(a)(3)(ii), PSEG requests relief from the applicable ASME OM Code requirements for 1BCPSV-F025 B and D and for the LPCI system relief valve sample group until restart from the HCGS refueling outage R16, which is currently scheduled to begin in October 2010. The 10-year test intervals would be extended by approximately 6 months. NUREG-1482, Rev. 1, Section 2.5, "Relief Requests and Proposed Alternatives," states that nuclear power plant licensees may also propose alternatives to ASME Code requirements if compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. The NRC staff has interpreted "hardship" to mean a high degree of difficulty or an adverse impact on plant operation, as illustrated by examples, including:

- having to enter multiple TS limiting conditions for operation
- inaccessibility
- replacing equipment or in-line components

1BCPSV-F025 "B" and "D" provide overpressure protection for the LPCI "B" and "D" injection lines respectively. Removal and testing of the valves is performed when the unit is in a refueling outage because the discharge of these relief valves is connected to the torus and cannot be isolated from containment. Removal of these valves would result in a breach of containment.

Testing 1BCPSV-F025 "B" and "D" before refueling outage R16 would constitute a hardship, due to the inability to isolate the valve discharge piping from the containment during normal plant operation. In addition, testing 1BCPSV-F025 "B" and "D" before refueling outage R16 can only be accomplished with unusual difficulty. Specifically, the unusual difficulty consists in performing a plant shutdown.

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

PSEG proposes to extend the 10-year test interval for the LPCI system relief valve sample group, listed in Table 2 below for 1BCPSV-F025 "B" and "D", by approximately 6 months.

**Table 2**

| Valve No.    | Description                     | Safety Class |                   | Setpoint (psig) | Last Tested |
|--------------|---------------------------------|--------------|-------------------|-----------------|-------------|
| 1BCPSV-F025B | LPCI Loop B Header Relief Valve | 2            | Crosby JMB-WR 1x1 | 410             | 5/01/00     |
| 1BCPSV-F025D | LPCI Loop D Header Relief Valve | 2            | Crosby JMB-WR 1x1 | 410             | 4/28/00     |

A review of the test history was performed to understand the history of these valves. The LPCI valve group consists of five valves manufactured by Crosby Valve Company. The test history search consisted of reviewing the test data for the valves within this group over parts of the 2<sup>nd</sup> and 3<sup>rd</sup> IST test interval.

The review of the test history of the five LPCI system relief valves showed that all of the valves within this grouping, with the exception of the 1BCPSV-F025C, were successfully as-found lift set surveillance tested during the IST 2<sup>nd</sup> and 3<sup>rd</sup> Test Interval with no signs of external leakage.

The history of testing on 1BCPSV-F025C was reviewed back to the 2<sup>nd</sup> IST Test Interval. The test on 04/20/03 was higher (17.7 psi) than the setpoint tolerance of +3%. A minor adjustment was made and the valve was successfully as-left tested.

Based on the review of plant specific experience described above, PSEG has concluded that the proposed alternative provides reasonable assurance of operational readiness for the LPCI system relief valve group. Therefore, in accordance with 10 CFR 50.55a(a)(3)(ii), this interval inspection extension until HCGS R16 is requested on the basis that compliance with the specified requirements would result in hardship or unusual difficult without a compensating increase in the level of quality and safety.

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**6. Duration of Proposed Alternative**

This proposed alternative is requested until the restart after R16, currently scheduled to begin in October 2010. The duration of this extension is approximately 6 months.

**7. Precedents**

In Reference 1, the NRC authorized a one-time extension of the 48-month test interval to 52 months for seven relief valve sample groups for Donald C. Cook Nuclear Plant Unit 2.

In Reference 2, the NRC authorized a one-time extension of the 10-year test interval for a Class 2 relief valve by approximately 7 months for Point Beach Nuclear Plant, Unit 1.

In Reference 3, the NRC authorized a one-time extension for Class 2 and 3 pressure relief valves by approximately 7 months for Salem Unit 2.

**8. References**

1. NRC Safety Evaluation dated October 29, 2001 (TAC No. MB2979), Donald C. Cook Nuclear Plant, Unit 2, Docket No. 50-316.
2. NRC Safety Evaluation dated April 1, 2004 (TAC No. MC2046), Point Beach Nuclear Plant, Unit 1, Docket No. 50-266.
3. NRC Safety Evaluation dated March 5, 2009 (TAC No. ME0784), Salem Generating Station, Unit 2, Docket No. 50-311.