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10 CFR 50.552

LR-N09-0204
September 1, 2009

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-06 to extend the test intervals for certain Class 2 and 3 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 May 01, 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.

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

A047
NRR

Sincerely,

Paul R Duke for

Jeffrie Keenan
Manager- Licensing
PSEG Nuclear, LLC

Attachment:
1. Relief Request V-06

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-06	Safety Auxiliary Cooling and Chilled Water Systems Relief Valve Test Intervals

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) Safety Auxiliary Cooling System (SACS) and Chilled Water Relief Valves are in Table 1.

Table 1

Component No.	Description	Code Class
1EGPSV-2519	SACS Return Side Accumulator Relief Valve	3
1GBPSV-9522B	Drywell Chilled Water Supply Thermal Relief Valve	2
1GBPSV-9523B	Drywell Chilled Water Return Thermal Relief Valve	2

2. Applicable Code Edition and Addenda

For the current third 10-year inservice testing (1ST) 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 21st, 2006 and will end on December 20th, 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.

Mandatory Appendix I, Section I-1390 requires Class 2 and 3 thermal relief valves to be tested every 10 years.

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. For the SACS valve sample group, the OM Code requirement to test at least 20% of the pressure relief devices of each type and manufacture within any 48 month period was not correctly incorporated into the schedule for relief valve testing. For the Chilled Water valve sample group, the OM Code requirement for Class 2 and 3 pressure relief valves to be tested every 10 years was not correctly incorporated into the schedule for relief valve testing. The schedule for testing 1EGPSV-2519 incorrectly applied a 25% extension resulting in exceeding the 48 month requirement and will result in an exceedance of the ten year test interval in May 2010. 1GBPSV-9522B and 1GBPSV-9523B incorrectly applied a 25% extension to the ten year test interval. As a result, 1EGPSV-2519, 1GBPSV-9522B and 1GBPSV-9523B were not tested during 1R15. 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 Unit 1. To meet the 10 year applicable ASME OM Code requirements, 1EGPSV-2519, 1GBPSV-9522B and 1GBPSV-9523B are required to be tested no later than May 05, 2010.

In accordance with 10 CFR 50.55a(a)(3)(ii), PSEG requests relief from the applicable ASME OM Code requirements for 1EGPSV-2519, 1GBPSV-9522B and 1GBPSV-9523B and for the SACS and Chilled Water system relief valve sample groups 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 5 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

1EGPSV-2519 provides overpressure protection for the SACS Return Side Accumulator and relieves to the atmosphere. Removal and testing of 1EGPSV-2519 is performed when the unit is in a refueling outage because it is inaccessible as it cannot be isolated and removed with the station online. The accumulator is part of the Turbine Auxiliary Cooling System (TACS) and 1EGPSV-2519 can only be removed when TACS is not in service, which is during a refueling outage.

The accumulator is designed to protect the safety related SACS piping from being overpressurized due to a pressure transient resulting from a pipe break in the TACS loop. The TACS system is not safety related, but it is designed to provide cooling water to the turbine auxiliary equipment during normal plant operation and normal plant shutdown. The TACS system water supply originates and terminates from the safety related SACS system. Loss of TACS would result in a trip of the main turbine and a scram of the reactor.

1GBPSV-9522B and 1GBPSV-9523B are also inaccessible during normal plant operation because they are located in the drywell. These valves provide thermal relief for the supply and return containment isolation valve penetrations for the Turbine Building Chilled Water System. The drywell penetrations, and associated containment isolation valves, are the only safety-related portions of the system. As stated, the relief valves are thermal relief devices designed to "burp" if the trapped fluid in the containment penetration piping section, with closed isolation valves, should thermally expand and challenge the integrity of the pipe. 1GBPSV-9522B and 1GBPSV-9523B are both in the inerted drywell.

Testing 1EGPSV-2519, 1GBPSV-9522B and 1GBPSV-9523B before refueling outage R16 would constitute a hardship due to the inaccessibility of the components during normal plant operation. In addition, testing 1EGPSV-2519, 1GBPSV-9522B and 1GBPSV-9523B before refueling outage R16 can only be accomplished with unusual difficulty, specifically, the unusual difficulty consists in performing a plant shutdown.

5. <u>Proposed Alternative and Basis for Use</u>

PSEG proposes to extend the 10-year test interval for 1EGPSV-2519, 1GBPSV-9522B and 1GBPSV-9523B by approximately 5 months.

A review of the test history was performed to understand the history of these valves. The valves in the applicable relief valve sample groups are listed below in Table 2. The SACS valve group consists of two valves manufactured by Crosby Valve Company. The Chilled Water system valve group consists of four 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 2nd and 3rd IST test interval.

Table 2

Valve No.	Description	Safety Class		Setpoint (psig)	Last Tested
1EGPSV-2519	SACS Return Side Accumulator Relief Valve	3	Crosby JO-25	220	5/16/2000
1EGPSV-2266	SACS Supply Side Accumulator Relief Valve	3	Crosby JO-25	220	12/10/2004
GBPSV-9522A	Drywell Chilled Water Supply Thermal Relief Valve	2	Crosby JRAK	150	10/22/2007
GBPSV-9522B	Drywell Chilled Water Supply Thermal Relief Valve	2	Crosby JRAK	150	5/5/2000
GBPSV-9523A	Drywell Chilled Water Return Thermal Relief Valve	2	Crosby JRAK	150	10/21/2007
GBPSV-9523B	Drywell Chilled Water Return Thermal Relief Valve	2	Crosby JRAK	150	5/5/2000

The review of the test history of the two SACS system relief valves showed the valves within this grouping were successfully as-found lift set surveillance tested during the IST 2nd Test Interval with no signs of external leakage. The review of the test history of the four Chilled Water system relief valves showed that all of the valves within this grouping, with the exception of the 1GBPSV-9522A, were successfully as-found lift set surveillance tested during the IST 2nd and 3rd Test Interval with no signs of external leakage.

The history of testing on the 1GBHV-9522A was reviewed back to the 2nd IST Test Interval to verify how this valve had tested previously. This valve was last tested satisfactorily on 12/13/04 with no evidence of leakage. 1GBHV-9522A was also tested on 5/16/00 with no evidence of leakage. The test on 10/22/07 was slightly higher (4.5 psi above the cold set pressure) 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 SACS and Chilled Water system relief valve groups. Therefore, in accordance with 10 CFR 50.55(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.

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 5 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.