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MAY 11 2016

PSEG
Nuclear LLC

10 CFR 50.90

LR-N16-0002
LAR H16-01

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

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

Subject: **License Amendment Request to Amend Technical Specifications (TS) to Delete Action Statement 3.4.2.1.b Associated with Stuck Open Safety/Relief Valves (SRVs)**

In accordance with the provisions of 10 CFR 50.90, PSEG Nuclear LLC (PSEG) is submitting a request for an amendment to the Technical Specifications (TS) for Hope Creek Generating Station (Hope Creek).

The proposed amendment would modify TS requirements to delete action statement b associated with limiting condition for operation 3.4.2.1 concerning stuck open safety/relief valves.

Attachment 1 provides a description and assessment of the proposed changes. Attachment 2 provides the existing TS pages marked up to show the proposed changes.

PSEG requests approval of this LAR in accordance with standard NRC approval process and schedule. Once approved, the amendment will be implemented within 60 days from the date of issuance.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated State of New Jersey Official.

There are no regulatory commitments contained in this letter.

If you have any questions or require additional information, please contact Ms. Tanya Timberman at 856-339-1426.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 11, 2016
(Date)

Respectfully,

Paul Davison

Paul Davison
Site Vice President – Hope Creek Generating Station

Attachments:
1. Description and Assessment
2. Mark-up of Proposed Technical Specification Pages

cc: Mr. D. Dorman, Administrator, Region I, NRC
Mr. T. Wengert, Project Manager, NRC
NRC Senior Resident Inspector, Hope Creek
Mr. P. Mulligan, Chief, NJBNE
PSEG Corporate Commitment Tracking Coordinator
Hope Creek Commitment Tracking Coordinator

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Attachment 1

Description and Assessment

License Amendment Request to Delete Action Statement 3.4.2.1.b Associated with Stuck Open Safety/Relief Valves (SRVs)

Table of Contents

1.0 DESCRIPTION

The proposed change revises the Hope Creek Technical Specifications (TS) to delete action statement b associated with TS 3.4.2.1 concerning stuck open safety/relief valves.

2.0 PROPOSED CHANGE

This License Amendment Request deletes TS action statement 3.4.2.1.b concerning stuck open safety/relief valves. TS Action Statement 3.4.2.1.b currently states:

> With one or more safety/relief valves stuck open, provided that suppression pool average water temperature is less than 110°F, close the stuck open safety relief valve(s); if unable to close the stuck open valve(s) within 2 minutes or if suppression pool average water temperature is 110°F or greater, place the reactor mode switch in the Shutdown position.

TS Action 3.6.2.1.b.2, which also requires the reactor mode switch to be placed in the Shutdown position when the suppression chamber average water temperate exceeds 110°F, would not be changed.

3.0 BACKGROUND

Action statement 3.4.2.1.b requires that the stuck open safety/relief valve(s) be closed within two (2) minutes, or, if suppression pool average water temperature is 110°F or greater, the reactor mode switch to be placed in the Shutdown position. This requirement is not within the BWR Standard Technical Specifications (NUREG-1433, "Standard Technical Specifications General Electric Plants, BWR/4," Revision 4, dated April 2012).

The two (2) minute requirement represents detailed methods of responding to an event and not necessarily a compensatory action for failure to meet the limiting condition for operation (LCO) for safety/relief valves. The compensatory actions for failure to meet the LCO for suppression pool temperature are provided in TS 3.6.2.1, “Depressurization Systems – Suppression Chamber” and plant procedures.

As discussed in Section 15.1.4 "Inadvertent Main Steam Relief Valve Opening," of the Hope Creek Updated Final Safety Analysis Report (UFSAR), a main steam relief valve is postulated to inadvertently open. This transient is analyzed as an incident of moderate frequency. The plant operator must reclose the valve and check that reactor and turbine-generator output return to normal. If the valve cannot be closed, plant shutdown must be initiated.

As discussed in UFSAR Sections 15.1.4.4 and 15.1.4.5, the transient resulting from an inadvertent main steam safety/relief valve (SRV) opening is a mild depressurization that is within the range of normal load following, and, therefore, has no significant effect on reactor coolant pressure boundary (RCPB) and containment design pressure limits. While the consequence of this transient does not result in fuel failure, it does result in the discharge of normal coolant activity to the suppression pool via SRV operation. Because this activity is contained in the primary containment, there is no exposure to operating personnel. This transient does not result in an uncontrolled release to the environment. In addition, there is no

impact on the safety function of the SRVs to prevent the reactor coolant system from being pressurized above the Safety Limit of 1375 psig in accordance with the ASME Code or to provide Automatic Depressurization System (ADS) functions.

4.0 TECHNICAL ANALYSIS

Hope Creek requests deleting action statement b associated with limiting condition for operation 3.4.2.1 which requires the reactor mode switch to be placed in the Shutdown position when stuck open safety/relief valve(s) are not closed within two (2) minutes, or when suppression pool average water temperature is 110°F or greater.

TS Action 3.4.2.1.b is redundant to TS 3.6.2.1, "Depressurization Systems - Suppression Chamber," limiting condition for operation, action b.2 which also directs the operator to place the reactor mode switch in SHUTDOWN to scram the reactor if the suppression pool average water temperature reaches 110 °F, except for the requirement for operators to shut down the reactor within 2 minutes of the SRV opening. Actions for TS 3.6.2.1 already provide operators with appropriate direction for response to a suppression pool high temperature caused by a stuck open relief valve.

The proposed change removes the two minute requirement from TS 3.4.2.1.b. Eliminating the requirement to scram the reactor after two (2) minutes can allow operators to devote more time to addressing problems with the stuck open valve and preparing for post-scram actions and depressurization.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

PSEG has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No

   The proposed TS change deletes Action Statement 3.4.2.1.b concerning safety/relief valves. The two (2) minute action represents detailed methods of responding to an event, and therefore, if eliminated, would not result in increasing the probability of the event, nor act as an initiator of an event. Limiting condition for operation 3.6.2.1, “Depressurization Systems – Suppression Chamber,” and plant procedures provide operators with appropriate direction for response to a suppression pool high temperature (which could be caused by a stuck open relief valve). Providing specific direction to close the valve within two (2) minutes does not provide additional plant protection beyond what is provided for in plant procedures and TS 3.6.2.1.

Therefore, this action can be eliminated, and will not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No

   The proposed TS change deletes Action Statement 3.4.2.1.b concerning safety/relief valves. This change does not change the design or configuration of the plant. No new operation or failure modes are created, nor is a system-level failure mode created that is different than those that already exist.

   Therefore, it is concluded that this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

   Response: No

   The proposed change does not involve a significant reduction in a margin of safety, nor does it affect any analytical limits. There are no changes to accident or transient core thermal hydraulic conditions, or fuel or reactor coolant boundary design limits, as a result of the proposed change. The proposed change will not alter the assumptions or results of the analysis contained in the Updated Final Safety Analysis Report (UFSAR).

   Therefore, it is concluded that the proposed change does not involve a significant reduction in a margin of safety.

Based upon the above, PSEG concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

10 CFR 50.36(c)(2), *Limiting conditions for operation*, states: (i) Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met.

Action statement 3.4.2.1.b requires that the stuck open safety/relief valve(s) be closed within two (2) minutes, or if suppression pool average water temperature is 110°F or greater, the reactor mode switch to be placed in the Shutdown position. The requirement to place the reactor mode switch in the Shutdown position if stuck open safety/relief valve(s) are not closed within two (2) minutes represents detailed methods of responding to an event and not necessarily a compensatory action for failure to meet the limiting condition for operation (LCO) for safety/relief valves.

TS 3.6.2.1, Depressurization Systems - Suppression Chamber, limiting condition for operation, action b.2 directs the operator to place the reactor mode switch in Shutdown to scram the reactor if the suppression pool average water temperature reaches 110 °F. This action will remain unchanged and provides appropriate remedial action permitted by the technical specifications until the limiting condition for operation can be met.

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

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Attachment 2

Mark-up of Proposed Technical Specification Pages

Mark-up of Proposed Technical Specification Pages

The following Technical Specifications pages for Renewed Facility Operating License NPF-57 are affected by this change request:

Technical Specification	Page
3.4.2.1, Safety/Relief Valves	3/4 4-7

REACTOR COOLANT SYSTEM

3/4.4.2 SAFETY/RELIEF VALVES

SAFETY/RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.4.2.1 The safety valve function of at least 13 of the following reactor coolant system safety/relief valves shall be OPERABLE*# with the specified code safety valve function lift settings:**

4	safety-relief valves @ 1108 psig ±3%
5	safety-relief valves @ 1120 psig ±3%
5	safety-relief valves @ 1130 psig ±3%

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

a. With the safety valve function of two or more of the above listed fourteen safety/relief valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

b. ~~With one or more safety/relief valves stuck open, provided that suppression pool average water temperature is less than 110°F, close the stuck open safety relief valve(s); if unable to close the stuck open valve(s) within 2 minutes or if suppression pool average water temperature is 110°F or greater, place the reactor mode switch in the Shutdown position.~~

c. Deleted

Deleted

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* SRVs which perform as ADS function must also satisfy the OPERABILITY requirements of Specification 3.5.1, ECCS-Operating.

** The lift setting pressure shall correspond to ambient conditions of the valves at nominal operating temperatures and pressures.

SRVs which perform a low-low set function must also satisfy the OPERABILITY requirements of Specification 3.4.2.2, Safety/Relief Valves Low-Low Set Function.