December 24, 2008

MEMORANDUM TO: Harold K. Chernoff, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

FROM: Robert B. Elliott, Chief***/RA/***
Technical Specifications Branch
Division of Inspections and Regional Support
Office of Nuclear Reactor Regulation

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION – HOPE CREEK GENERATING STATION TECHNICAL SPECIFICATION CHANGES TO ADD LCO 3.0.8 ON THE INOPERABILITY OF SNUBBERS (TAC NO. MD9337)

By application dated July 30, 2008, PSEG Nuclear LLC requested changes to the Technical Specifications (TSs) for the Hope Creek Generating Station. The proposed changes would add Limiting Condition for Operation 3.0.8 and associated Bases, allowing a delay time for entering a supported system TSs, when the inoperability is due solely to an inoperable snubber, if risk is assessed and managed. .

The Technical Specifications Branch ITSB) of the Division of Inspections and Regional Support (DIRS) has identified the need for additional information to complete its review of the LAR. The staff RAI is enclosed.

Docket Nos.: 50-354

Enclosure:
Staff Safety Evaluation

CONTACT: Carl Schulten, NRR/DIRS
301-415-1192

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Hope Creek Generating Station
Docket No. 50-354

REQUEST FOR ADDITIONAL INFORMATION

The NRC staff requests additional information to clarify the Hope Creek technical specification change application (MD9337) for the addition of LCO 3.0.8 on the impact of inoperable snubbers.

Consistent with the staff's approval and inherent in the implementation of TSTF-372 Revision 4, licensees interested in implementing LCO 3.0.8 must, as applicable, operate in accordance with stipulations. Section 3.0, Regulatory Analysis, Subsection 3.2, Verification and Commitments, discusses the two Conditions for application of TSTF-372 specified in the model Safety Evaluation.

1. For BWR plants, one of the following two means of heat removal must be available when LCO 3.0.8a is used:

    - At least one high pressure makeup path (e.g., using high pressure coolant injection (HPCI) or reactor core isolation cooling (RCIC) or equivalent) and heat removal capability (e.g.,suppression pool cooling), including a minimum set of supporting equipment required for success, not associated with the inoperable snubber(s), or

    - At least one low pressure makeup path (e.g., low pressure coolant injection (LPCI) or containment spray (CS)) and heat removal capability(e.g., suppression pool cooling or shutdown cooling), including a minimum set of supporting equipment required for success, not associated with the inoperable snubber(s).

2. When LCO 3.0.8b is used at BWR plants, it must be verified that at least one success path exists, using equipment not associated with the inoperable snubber(s), to provide makeup and core cooling needed to mitigate LOOP accident sequences.

Regarding these conditions PSEG Nuclear wrote:

> <u>Addition of TS LCO 3.0.8 - Applicability of Published Safety Evaluation</u>
> PSEG has reviewed the safety evaluation dated May.4, 2005 as part of the CLIIP. This review included a review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-372. PSEG has concluded that the justifications presented in the TSTF:proposal and the safety evaluation prepared by the NRC staff are applicable to HCGS and justify this amendment for the incorporation of the changes to the HCGS TS.

It is not clear to the staff what these application statements mean in terms of taking actions to implement Tier 2 restrictions. Conclusions made by the licensee that would result in exceptions to or deviations from TSTF-372 model SE requirements to establish plant procedures and administrative controls to implement Tier 2 Restrictions need to include an analysis basis for the

conclusion. The license application regulatory analysis and the Attachment 5 list of commitments need to address this issue for both conditions described in the safety analysis.

REGULATORY ANALYSIS BASIS FOR RAI

Regulations

10 CFR 50.36(d)(2)(i),states:

> *Limiting conditions for operation*. (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.

LCO 3.0.8 modifies TS requirements on the impact of inoperable snubbers. Under LCO 3.0.8 TS systems would remain operable when required snubbers are not capable of providing their related support function. The licensee stated that the proposed amendment is consistent with staff approved TSTF-372, Rev 4, "Addition of LCO 3.0.8, Inoperability of Snubbers"

TSTF-372, Revision 4, documents a risk-informed analysis of the proposed TS change. The risk assessment associated with the proposed delay times for entering the TS actions for the supported equipment was performed following the three-tiered approach recommended in RG 1.177 for evaluating proposed extensions in currently allowed CTs:

The second tier involves the identification of potentially high-risk configurations that could exist if equipment in addition to that associated with the change were to be taken out of service simultaneously, or other risk-significant operational factors such as concurrent equipment testing were also involved. The objective is to ensure that appropriate restrictions are in place to avoid any potential high-risk configurations.

CONTACT: Carl Schulten, DIRS/NRR

Dated: November 21, 2008

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