September 17, 2008

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

FROM: Richard B. Ennis, Senior Project Manager ***/RA/***
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: HOPE CREEK GENERATING STATION, DRAFT REQUEST FOR ADDITIONAL INFORMATION (TAC NO. MD9355)

The attached draft request for information (RAI) was transmitted on September 17, 2008, to Mr. Jeff Keenan of PSEG Nuclear LLC (the licensee). This information was transmitted to facilitate an upcoming conference call in order to clarify the licensee's amendment request dated July 30, 2008, for Hope Creek Generating Station. The proposed amendment would revise Technical Specification (TS) 3.8.3, "Onsite Power Distribution Systems," to establish a separate TS Action statement for inoperable inverters associated with the 120 volt alternating current distribution panels. The intent of the proposed amendment is to extend the allowed outage time for inoperable inverters from 8 hours to 24 hours.

This memorandum and the attachment do not convey or represent an NRC staff position regarding the licensee's request.

Docket No. 50-354

Attachment: Draft RAI

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RidsNrrDorlLpl1-2 Resource
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ACCESSION NO.: ML082660402

OFFICE	LPLI-2/PM
NAME	REnnis
DATE	9/17/08

OFFICIAL RECORD COPY

DRAFT REQUEST FOR ADDITIONAL INFORMATION

REGARDING PROPOSED LICENSE AMENDMENT

TECHNICAL SPECIFICATION REQUIREMENTS FOR INOPERABLE INVERTERS

HOPE CREEK GENERATING STATION

DOCKET NO. 50-354

By letter dated July 30, 2008, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML082200314), PSEG Nuclear LLC (PSEG or the licensee) submitted a license amendment request for Hope Creek Generating Station. The proposed amendment would revise Technical Specification (TS) 3.8.3, "Onsite Power Distribution Systems," to establish a separate TS Action statement for inoperable inverters associated with the 120 volt alternating current (VAC) distribution panels. The intent of the proposed amendment is to extend the allowed outage time for inoperable inverters from 8 hours to 24 hours.

The Nuclear Regulatory Commission (NRC) staff has reviewed the information the licensee provided that supports the proposed amendment and would like to discuss the following issues to clarify the submittal.

1. As stated in Regulatory Guide 1.177, a TS change may be requested to reduce unnecessary burdens in complying with current TS requirements, based on the operating history of the plant or the industry in general. Provide justification for the extended outage time of 24 hours, including maintenance and operating data (i.e., power supply and inverter failure rates).

2. When an inverter is taken out of service, and upon a loss-of-offsite power (LOOP) or LOOP/loss-of-coolant-accident (LOCA) event, the 120 VAC instrument bus that is being powered by its maintenance power supply will lose its power for ten seconds until the associated emergency diesel generator (EDG) re-energizes the bus. Describe the impacts of the extended outage time if a short-term loss of power occurs, in terms of inadvertent equipment operation and required contingency operator actions. As a result of the extended outage time, explain the effects, if any, of a short-term loss of power caused by a LOOP or LOOP/LOCA and a subsequent restoration of power to the motor control centers by the EDG.

3. Describe in detail why there is minimal safety consequence and very small risk changes associated with increasing the allowed outage time to 24 hours. In addition, describe any compensatory measures that would be taken before and during the time the instrument bus inverter is removed for an extended outage.

4. Discuss any impacts of the increased allowed outage time to load sequencers, EDGs, radiation monitoring, and vital buses.

Attachment

5. The Note in NUREG-1433, "Standard Technical Specifications General Electric Plants, BWR/4" Limiting Condition for Operation (LCO) 3.8.7, "Inverters - Operating," and the associated Standard Technical Specification (STS) Bases indicate that the outage time of 24 hours for the Class 1E inverters is limited only to those inverters associated with the single battery undergoing an equalizing charge provided that: (a) the associated AC vital bus[es] [is/are] energized and (b) all other AC vital buses are energized from their associated OPERABLE inverters. The amendment request states that the proposed changes are consistent with NUREG-1433, however, the request does not reflect this limitation. The proposed changes do not appear to meet the intent of the Note in the STS LCO 3.8.7 for the inverter outages. Provide justification for the deviation from STS.

6. Discuss in detail any impacts of the increased allowed outage time on 10 CFR Part 50 Appendix R requirements and post-accident monitoring instrumentation.

7. Describe the impacts of the extended outage time if a voltage transient (due to delayed fault clearing in the switchyard or overvoltage due to a sudden loss of load, etc.) occurs on the plant electrical system including the load sequencers when the instrument bus is fed by the maintenance power supply.