

OCT 23 2003



**LR-N03-0340
LCR H03-07**

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

**REQUEST FOR CHANGE TO TECHNICAL SPECIFICATIONS
EMERGENCY DIESEL GENERATOR (EDG) SURVEILLANCE TESTING
HOPE CREEK NUCLEAR GENERATING STATION UNIT 1
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354**

Pursuant to 10 CFR 50.90, PSEG Nuclear LLC (PSEG) hereby requests a revision to the Technical Specifications (TS) for Hope Creek Generating Station Unit 1. In accordance with 10CFR50.91(b)(1), a copy of this submittal has been sent to the State of New Jersey.

The proposed amendment requests deletion of surveillance requirements associated with EDG lockout features.

PSEG has evaluated the proposed changes in accordance with 10CFR50.91(a)(1), using the criteria in 10CFR50.92(c), and has determined this request involves no significant hazards considerations. An evaluation of the requested changes is provided in Attachment 1 to this letter. The marked up Technical Specification pages affected by the proposed changes are provided in Attachment 2.

PSEG requests approval of the proposed License Amendment by May 31, 2004 to be implemented within 60 days.

If you have any questions or require additional information, please contact Mr. Courtney Smyth at (856) 339-5298.

A001

OCT 23 2003

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

Executed on 10-23-03

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Christopher Bakken III', written over a horizontal line.

A. Christopher Bakken III
Sr. Vice President - Site Operations

Attachments (2)

OCT 23 2003

**C: Mr. H. Miller, Administrator – Region I
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HOPE CREEK GENERATING STATION UNIT 1
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354

EVALUATION OF REVISIONS TO THE TECHNICAL SPECIFICATIONS
EDG SURVEILLANCE TESTING

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REQUEST FOR CHANGE TO TECHNICAL SPECIFICATIONS

1. DESCRIPTION

The proposed amendment clarifies the surveillance requirements for Hope Creek Generating Station (HCGS) Technical Specification (TS) 3/4.8.1.1 AC SOURCES - OPERATING.

2. PROPOSED CHANGE

The following changes to the HCGS TS are proposed:

- a. Surveillance Requirement (SR) 4.8.1.1.2.h.14 is deleted.
- b. The footnote "*" on page 3/4 8-8 is removed.

The above changes are shown on the attached marked up pages (Attachment 2).

3. BACKGROUND

Hope Creek Inspection Report 50-354/03-002 documented a team inspection of activities as they relate to safety system design and performance capability of the high pressure cooling injection system and the electrical power system including the emergency diesel generators and offsite power systems. The inspection identified an apparent violation of Technical Specification (TS) 4.8.1.1.2.h.14 (a, b, and c) because of inadequate testing to verify that the emergency diesel generator (EDG) features associated with the 86R, 86B, and 86F lockout relays prevent EDG starting only when required. During the inspection the above features were tested. The purpose of this License Change Request is to permanently address the issues raised by the inspection by eliminating unnecessary TS surveillance requirements.

4. TECHNICAL ANALYSIS

The proposed change deletes SR 4.8.1.1.2.h.14. This deletion is appropriate since SR 4.8.1.1.2.h.7 verifies that all automatic diesel generator trips, except engine overspeed, generator differential current, generator overcurrent, bus differential current and low lube oil pressure are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal. SR 4.8.1.1.2.h.7 is consistent with BWR Improved Standard Technical Specifications (ISTS) NUREG - 1433, Rev. 2, SR 3.8.1.13. Therefore, the appropriate diesel generator trips are tested by SR 4.8.1.1.2.h.7. ISTS does not require testing of features that are bypassed under accident and emergency

conditions. The features bypassed are for equipment protection under non-emergency conditions only. The features bypassed under accident conditions play no safety role during accidents and, therefore, it is inappropriate to require testing its functionality as a TS requirement. SR 4.8.1.1.2.h.14 currently tests the diesel lockout features that are not bypassed (the critical protective functions) to validate that the lockout relays operate only when required. The intent of the surveillance ("...prevent diesel generator starting only when required...") is superfluous; requiring lockout to not be in effect unless the lockout condition is present. The condition is confirmed each time the EDG experiences a demand to start as part of the monthly surveillance. Based on the attached excerpts from the BWROG "Initial Comparison Document", the surveillance was not included in the original ISTS (NUREG 1433). In addition, the features do not meet any of the TS selection criteria of 10 CFR 50.36. It should be noted that a change similar to this change has been approved for the Sequoia Nuclear Plants as Amendments 242 and 232 (TAC NOS. MA4187 & MA4188).

The footnote "*" on page 3/4 8-8 is being deleted since this footnote was applicable only until the startup from refueling outage RFO11. Refueling outage RFO11 was completed in the Spring of 2003. Therefore, this footnote is no longer needed.

5. REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

PSEG Nuclear LLC (PSEG) has evaluated whether or not a significant hazards consideration is involved with the proposed amendment 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 changes to the Technical Specifications (TS) 3/4.8.1.1, AC Sources - Operating, would delete an unnecessary surveillance. The probability of occurrence or the consequences for an accident or malfunction of equipment is not increased by the proposed changes. In addition, the proposed changes do not alter the way any structure, system or component (SSC) functions, do not modify the manner in which the plant is operated, and do not significantly alter equipment out-of-service time. Deleting the surveillance of equipment protection does not change the probability or consequences of any accident and dose consequences are unaffected. No changes to the design of structures, systems, or

components (SSC) are made and there are no effects on accident mitigation.

Therefore, the proposed changes do 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 possibility of a new or different kind of accident from any accident or malfunction in the Hope Creek Updated Final Safety Analysis Report (UFSAR) is not created. The Emergency Diesel Generators are accident mitigation equipment and cannot initiate an accident. The proposed changes to the TS do not change the design function or operation of any SSCs. The TS, as amended, would continue to provide assurance of EDG operability.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed changes are procedural in nature and make no changes that affect the ability of plant SSCs to perform their design basis accident functions. In addition, the proposed changes do not change the margin of safety since no SSCs are changed. The results of accident analysis remain unchanged by the proposed changes to TS.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, PSEG concludes that the proposed changes present 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

General Design Criterion (GDC) 17 of Appendix A to 10 CFR 50 is applicable. The objectives of GDC 17 continue to be met with the proposed changes. Regulatory Guide 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies", March 10, 1971, and Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants", Revision 1, August 1977 also apply. In addition, existing SR 4.8.1.1.2.h.14 does not meet any of the TS selection criteria of 10 CFR 50.36

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. ENVIRONMENTAL CONSIDERATION

PSEG has determined the proposed amendment relates to changes in a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or relates to changes in an inspection or a surveillance requirement. 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 effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed change is not required.

7. REFERENCES

1. Hope Creek Inspection Report "HOPE CREEK NUCLEAR GENERATING STATION - NRC INTEGRATED INSPECTION REPORT 50-354/2003-03", dated May 13, 2003.
2. Hope Creek License Amendment 141, dated December 17, 2002.
3. Regulatory Guide 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies", March 10, 1971.
4. Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants", Revision 1, August 1977.

**HOPE CREEK NUCLEAR GENERATING STATION UNIT 1
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354
REVISIONS TO THE TECHNICAL SPECIFICATIONS**

TECHNICAL SPECIFICATION PAGES WITH PROPOSED CHANGES

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

<u>Technical Specification</u>	<u>Page</u>
3/4.8.1.1	3/4 8-8

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

10. Verifying the diesel generator's capability to:

- a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,
- b) Transfer its loads to the offsite power source,
- c) Be restored to its standby status, and
- d) Diesel generator circuit breaker is open.

11. Verifying that with the diesel generator operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrides the test mode by (1) returning the diesel generator to standby operation, and (2) automatically energizes the emergency loads with offsite power.

12. Verifying that fuel oil transfer pump transfers fuel oil from fuel storage tank to the day tank of each diesel via the installed cross connection lines.

13. Verifying that the automatic load sequence timer is OPERABLE with the interval between each load block within $\pm 10\%$ of its design interval.

14. ~~Deleted.~~

~~Verifying that the following diesel generator lockout features prevent diesel generator starting only when required:*~~

- ~~a) Engine overspeed, generator differential, and low lube oil pressure (regular lockout relay, (1) 86R).~~
- ~~b) Backup generator differential and generator overcurrent (backup lockout relay, (1) 86B).~~
- ~~c) Generator ground and lockout relays-regular, backup and test, energized (breaker failure lockout relay, (1) 86F).~~

i. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting all diesel generators simultaneously, during shutdown, and verifying that all diesel generators accelerate to at least 514 rpm in less than or equal to 10 seconds.

j. At least once per 10 years by:

- 1. Draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank using a sodium hypochlorite solution or equivalent, and

~~* Surveillance Requirement 4.8.1.1.2.h.14 is allowed to be performed at power until startup from the eleventh refueling outage (RFO 11).~~

EXECUTIVE SUMMARY

In April 1989, the BWROG-TSC authorized release of the 7-volume General Electric Topical Report NEDC-31681, "Improved BWR Technical Specifications." Two of these volumes (one for the BWR/4, and one for the BWR/6) consisted of markup and discussions of marked changes of the existing Draft Standard Technical Specifications (STS) (with NRC pen-and-ink changes referred to as Draft Revision 4). The identified changes corresponded to the proposed Improved Technical Specifications (ITS) also prepared by the BWROG-TSC (corresponding to two other volumes). The two STS markup volumes are referred to as the "Initial Comparison Document."

During the succeeding 5 years, the BWROG, along with utility personnel representing each of the four NSSS product lines and the NSSS vendors, negotiated with the NRC to develop an approved ITS. ITS Revision 0 was issued as NUREG 1433 (for the BWR/4) and NUREG 1434 (for the BWR/6), in September 1992. Further negotiations, through June 1994, have resulted in an accepted Revision 1 to these NUREGs. A tentative date for re-typed publication of these changes is slated for October 1994.

As a final task of the BWROG-TSC, an updated comparison between the STS Draft Rev. 4 and the ITS Rev. 1 has been prepared. This task is similar to the initial comparison in that a markup of the STS Draft Rev. 4, and discussion of marked changes, is provided in two volumes (one for the BWR/4 and one for the BWR/6). However, these indicated changes and associated discussions, have been compared to the latest negotiated version of the ITS (as of June 1994) and also include, where appropriate, various discussions regarding the historical development and potential plant specific conversion issues. This unique collection of bases for change, combined with some history of the efforts and discussions involved in negotiating that change, along with a few pertinent suggestions for those proceeding with a conversion effort, provides an invaluable tool for assisting in understanding ITS and converting existing licenses to ITS format.

DISCUSSION OF CHANGES TO STS, REV.4

Section 3.8

STS Page

3/4 8-ADMINISTRATIVE

(continued)

- 7 A.16 The intent of this Surveillance ("...prevent diesel generator starting only when required...") is considered superfluous; requiring the lockout to not be in effect unless the lockout condition or action of the operator is present. This is confirmed each time the DG experiences a demand for start - at least once per month. Removal of the specific 18 month Surveillance is therefore considered administrative.
- 7 A.17 Any time the OPERABILITY of a system or component has been affected by repair, maintenance or replacement of a component, post maintenance testing is required to demonstrate OPERABILITY of the system or component. Explicit post maintenance Surveillance Requirements are not required to be specifically detailed (one would have to add them to all Specifications if deemed necessary), and therefore are deleted from ITS. Since the statement is simply an obvious description of operating practice, the change is considered administrative.
- A.18 <BWR/6 only>
- 9,13,15 A.19 LCO 3.0.3 is revised (refer to Section 3.0 comment "A.3") to: "LCO 3.0.3 is only applicable in MODES 1, 2, and 3." This administrative change is made in conjunction with relocating all STS exceptions to LCO 3.0.3 for Specifications whose Applicability is other than MODES 1, 2, or 3, to be encompassed by the ITS LCO 3.0.3.
- 10 A.20 The Frequency of ITS SR 3.8.6.3 does not directly include the requirement for performance following a battery discharge or overcharge. However, this Frequency is included in SR 3.8.6.2 which includes a check of the specific gravity. Specific gravity must be corrected for electrolyte temperature. Therefore, the temperature must still be obtained when it is important to verification of OPERABILITY of the battery. Therefore this change in presentation is administrative.
- 11 A.21 The STS option to use either "actual emergency loads" or "a dummy load" is retained with the more generic wording "required emergency loads." It is acceptable to use "actual" loads (although not very practical), or a load profile that encompasses the expected actual loads. This change is a presentation preference only.

ELECTRICAL POWER SYSTEMS

(LCO 3.8.3)

SPEC 5.6.7

SURVEILLANCE REQUIREMENTS (Continued)

16. Verifying that the following diesel generator lockout features prevent diesel generator starting only when required: (A16)
- a) (Turning gear engaged.)
 - b) (Emergency stop.)
- f. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting both diesel generators simultaneously, during shutdown, and verifying that both diesel generators accelerate to at least (900) rpm in less than or equal to (13) seconds. (A17)
- SR 3.8.1.20 (A6)
- g. At least once per 10 years by: (M7)
- (SR 3.8.3.6) 1. Draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank using a (sodium hypochlorite) solution, and (L7)
 - 2. Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section II Article IWD-5000. (L4)
- 4.8.1.1.3 Reports - All diesel generator failures, valid or non-valid, shall be reported to the Commission pursuant to Specification 6.9.1. Reports of diesel generator failures shall include the information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977. If the number of failures in the last 100 valid tests, on a per nuclear unit basis, is greater than or equal to 7, the report shall be supplemented to include the additional information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977. (L6)