

JUN 24 2004



LR-N04-0234

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

**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION FOR LCR-H03-07
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**

By letter dated October 23, 2003, PSEG Nuclear LLC submitted a license amendment request LCR H03-07 (LR-N03-0340), for the Hope Creek Generating Station requesting approval of a change to the Hope Creek Technical Specifications to delete surveillance requirements associated with the EDG lockout features. By letter dated May 7, 2004 the Nuclear Regulatory Commission staff requested additional information to complete their review. This letter provides our response to the requested information.

No changes to the No Significant Hazards Analysis were made and there are no changes to the No Significant Hazards Analysis conclusions.

In accordance with 10CFR50.91(b)(1), a copy of this submittal has been sent to the State of New Jersey.

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

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

Executed on 6/24/2004
(Date)

Sincerely,


Michael H. Brothers
Vice President - Site Operations

Attachments (1)

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C: Mr. H. Miller, Administrator – Region I
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USNRC Senior Resident Inspector – Hope Creek (X24)

Mr. K. Tosch, Manager IV
Bureau of Nuclear Engineering
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NRC Request for Information:

By letter dated October 23, 2003, PSEG Nuclear LLC submitted a license amendment request, LCR H03-07, for the Hope Creek Generating Station (Hope Creek) seeking approval of proposed changes to the Hope Creek Technical Specifications (TSs). Specifically, the requested change would delete surveillance requirements (SRs) associated with the emergency diesel generator lockout features. The Nuclear Regulatory Commission staff has been reviewing your submittal and has determined that the following additional information is required to complete our review:

1. Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.36(b) requires that the TSs be derived from the analyses and evaluation included in the safety analysis report (SAR). Additional requirements for the contents of TSs are contained in 10 CFR 50.36(c)(2).

Hope Creek's Updated Final Safety Analysis Report (UFSAR) Section 8.3.1.1.3.3, "SDG [Standby Diesel Generator] Tripping" indicates that when a Class 1E bus is energized only by the SDG (during loss of offsite power and/or loss-of-coolant-accident), each diesel engine and the circuit breaker that connects the diesel engine generator to the 4.16 KV Class 1E bus are tripped and locked out by protective devices under the following conditions:

1. Operation of SDG differential relay
2. Operation of the bus differential relay for the bus to which the SDG is connected
3. Engine overspeed
4. Low lube oil pressure
5. SDG overcurrent

This section of the UFSAR indicates that these SDG lockout features were evaluated in the SAR to assure the availability of the SDG when needed pursuant with the requirements of general design criteria (GDC) 17. Pursuant with 10 CFR 50.36, the Hope Creek TS SR 4.8.1.1.2.h.14 requires verification that these trip and lockout features prevent diesel generator starting only when required. The proposed TS change deletes SR 4.8.1.1.2.h.14.

Provide a detailed explanation of how Hope Creek would continue to meet the requirements of GDC 17 and 10 CFR 50.36 following the proposed TS changes.

Response to NRC Request for Information:

Compliance with GDC 17:

There are no changes to the design of the plant, therefore, the method of compliance with GDC 17 remains unchanged. The features which are sought to be removed from Technical Specifications are the "negative" features. In order to meet the GDC requirement it is necessary to show that these features will not

inadvertently prevent the diesel from functioning. This is reflected in the language "prevent diesel generator starting only when required". Each time the diesel is run for the remaining surveillances, there is a demonstration that these features do not prevent the diesel from starting. These tests have adequately demonstrated in the past that the lockout features do not impact EDG availability and the tests will continue to be performed after the proposed Technical Specifications changes are implemented. Therefore, the Hope Creek EDGs will continue to be available, when needed, to support the requirements of GDC 17 in accordance with the UFSAR.

Compliance with 10 CFR 50.36:

10 CFR 50.36(c)(2)(ii) permits limiting TS to items meeting one or more of the "selection" criteria given below. Each of these criteria are discussed below as they pertain to SR 4.8.1.1.2.h.14:

Criterion 1. Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

The Emergency Diesel Generator (EDG) lockout features are not, "Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary" (Criterion 1), they are protective features used to protect the diesel from potentially unrecoverable conditions and provide no indication of reactor coolant pressure boundary degradation. EDG safety function is for accident mitigation and is independent of reactor coolant pressure boundary degradation detection. Therefore, this criterion is not impacted by this change.

Criterion 2. A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The EDG lockout features are not process variables, design features, or operating restrictions that are initial conditions of a design basis accident. They are intended only for EDG equipment protection and they are not required to mitigate a design basis accident or transient (Criterion 2).

Criterion 3. A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

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Although the diesels are an important part of the success path, the lockout features do not function or actuate to mitigate a design basis accident or transient. The features are for EDG equipment protection only and are not needed to mitigate any design basis accident or transient (Criterion 3) but rather to provide protection from unrecoverable conditions. The important function is that these features do not inadvertently prohibit the diesel from starting. The diesel initiation start signals which satisfy this criteria (e.g. LOCA, etc) are unaffected by the proposed change.

Criterion 4. A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The lockout features are tested frequently (at least monthly) and have been reliable. Therefore, operating experience has not shown the EDG lockout features to be significant to public health and safety. The lockout features are not specifically modeled in the Hope Creek probabilistic risk assessment. However, the failure probability assigned to the EDG accounts for the lockout features. Therefore, the proposed changes will not affect overall plant risk. Based on the above the EDG lockout features are not significant to public health and safety (Criterion 4).

10CFR50.36(c)(3) Surveillance requirements:

Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

The surveillance testing which is sought to be eliminated by this amendment does not provide assurance that facility operation will be within safety limits, and that the limiting conditions for operation will be met. As discussed above, the specific surveillance that is being proposed to be eliminated is a negative test. The successful performance of the remaining surveillance tests adequately demonstrates that the lock-out features do not inadvertently prevent the diesel from starting.

To summarize, the lockout features are used only for EDG equipment protection from potentially unrecoverable conditions related to over current, overspeed, overpower, or degraded lubrication. These conditions are not expected to occur, but could cause unrecoverable EDG damage. By protecting the diesels in this fashion there remains the potential to correct the defective condition thus retaining the capability to provide emergency power during the course of the design basis accident or recovery phase. In addition, each time the EDG is tested, as a minimum on a monthly basis per SR 4.8.1.1.2, it is verified that the

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EDG lockout features do not prevent successful EDG operation. Furthermore, the listed features will continue to be functional and will be maintained in accordance with the diesel preventative maintenance program. Therefore, compliance with 10 CFR 50.36 for the HC EDGs is maintained as a result of this change.