UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 13 TO FACILITY OPERATING LICENSE NO. NPF-86

NORTH ATLANTIC ENERGY SERVICE CORPORATION

SEABROOK STATION, UNIT NO. 1

DOCKET NO. 50-443

1.0 INTRODUCTION

By letter dated March 20, 1992, as supplemented on June 19, 1992, and July 1, 1992, the North Atlantic Energy Service Corporation (the licensee) submitted a request to revise diesel generator (DG) surveillance requirements for Seabrook Station, Unit 1. The proposed changes would eliminate (1) the requirements to sequence on the Loss of Offsite Power (LOOP)/Safety Injection (SI) loads from the 24-hour DG surveillance 4.8.1.1.2f.7, and (2) the requirements for rapid loading of surveillance requirement 4.8.1.1.2.a.6. The proposed changes would also provide a load range, where applicable, to preclude routine overload of the DGs during surveillance testing. Currently, this LOOP/SI surveillance can only be performed near the end of the outage when all of the required engineered safety features (ESF) equipment is returned to service. By requiring a LOOP/SI test near the end of the outage, the outage is extended for a minimum of 48 hours, for testing of both diesel generators. Eliminating this extension alleviates the scheduling difficulties and the associated financial burden due to the need to purchase replacement power for the additional period. The proposed revision to the diesel generator Surveillance Requirements will meet the intent of Regulatory Guide 1.108. The July 1, 1992, letter provided clarifying information that did not change the proposed no significant hazards consideration determination. The staff's evaluation of the proposed Technical Specification (TS) changes follows.

2.0 EVALUATION

The current TS Surveillance Requirement 4.8.1.1.2f.7 verifies DG hot restart capability by initiating a LOOP/SI test within 5 minutes of completing the DG 24-hour DG run. The licensee has stated that this test creates significant scheduling demand during an outage by reducing schedule flexibility and imposing unnecessary operating burden. The licensee has proposed to revise the method of verifying DG hot restart capability. The revised surveillance requirement will verify DG hot restart capability by either manually or automatically starting the DG and verifying that it attains rated voltage and frequency within the required time. The requirement to sequence on the LOOP/SI loads will be deleted. The staff finds the above proposed TS change to be consistent with the Improved Standard TS and is acceptable.

Since the LOOP/SI test will no longer be used during Surveillance Requirement 4.8.1.1.2f.7, the note at the bottom of page 3/4 8.7 is reworded to delete the reference to this test. Additionally, the requirement to run the DG for 1 hour to achieve normal operating temperature is increased to 2 hours. The staff finds the above requirement to be consistent with the Improved Standard TS and is acceptable.

Surveillance Requirement 4.8.1.1.2a.6 specifies in part that at least once per 184 days the DG be rapidly loaded to greater than or equal to 6083 KW in 120 seconds or less. This test introduces mechanical stress and wear on the engine. The licensee has proposed to load the DG gradually during this surveillance requirement. The staff finds the above proposed change to be consistent with Generic Letter 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," and is acceptable.

A load range has been proposed to preclude overloading of the DG during surveillance testing. Specifically, a load of "greater than or equal to 6083 KW" has been proposed to be replaced by a load range of "greater than or equal to 5600 KW and less than or equal to 6100 KW" in Surveillance Requirements 4.8.1.1.2a.6, 4.8.1.1.2f.7, and to the note at the bottom of page 3/4 8-7. Similarly, the 2-hour load rating specified in Surveillance Requirement 4.8.1.1.2f.7 is changed to a load range of "greater than or equal to 6363 KW and less than or equal to 6700 KW." The staff finds the above TS changes to be consistent with the Improved Standard TS and is acceptable.

The licensee has proposed to delete the second sentence of the note at the bottom of page 3/4 8-3. The note will now state, "All planned starts for the purpose of these surveillances may be preceded by an engine prelube period." The second sentence with regard to gradual acceleration is being deleted since the Seabrook Station DGs are not designed to gradually accelerate to operating speed.

In addition, the licensee has proposed to apply the above revised note to the entire Surveillance Requirement of 4.8.1.1.2 since the engine prelube option is applicable to all test starts. The staff finds the above changes to be consistent with the Improved Standard TS and acceptable.

The licensee has proposed to replace the term "ambient condition" with the term "standby conditions" in Surveillance Requirements 4.8.1.1.2a.5. The term "standby conditions" is inserted in Surveillance Requirements 4.8.1.1.2f.4b, 4.8.1.1.2f.5, and 4.8.1.1.2f.6b. This term (standby conditions) more accurately describes the condition in which the DGs are maintained and accounts for the jacket water and lube oil warming systems which are continually in operation. The staff finds the above term to be consistent with the term used in the Improved Standard TS and is acceptable.

addition to the above changes, several notes have been revised or added. The purpose of the changes is to provide amplifying information for the applicable TS to enhance and improve its clarity. The staff has reviewed these notes and finds them to be acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Hampshire and Massachusetts State officials were notified of the proposed issuance of the amendment. The State officials had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (57 FR 30258). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (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.

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Date: August 10, 1992