

**North
Atlantic**

SEABROOK STATION UNIT 1

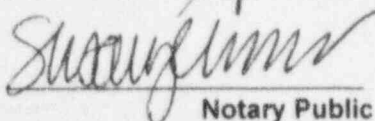
Facility Operating License NPF-86
Docket No. 50-443


License Amendment Request No. 95-07
Automatic Switchover to Containment Sump/RWST Level Low-Low

This License Amendment Request is submitted by North Atlantic Energy Service Corporation pursuant to 10CFR50.90. The following information is enclosed in support of this License Amendment Request:

- Section I - Introduction and Safety Evaluation for the Proposed Changes
- Section II - Markup of Proposed Changes
- Section III - Retype of Proposed Changes
- Section IV - Determination of Significant Hazards for Proposed Changes
- Section V - Proposed Schedule for License Amendment Issuance and Effectiveness
- Section VI - Environmental Impact Assessment

Sworn and Subscribed
to before me this
22 day of September, 1995


Notary Public


Bruce L. Drawbridge
Executive Director - Nuclear Production

I. Introduction and Safety Evaluation for Proposed Changes

A. Introduction

The purpose of License Amendment Request (LAR) 95-07 is to propose changes to the Seabrook Station Technical Specifications to correct the ACTION referenced in Table 3.3-3 of Technical Specification 3.3.2. (Engineered Safety Features Actuation System Instrumentation) for Functional Unit 8.b, "Automatic Switchover to Containment Sump/RWST Level Low-Low." This functional unit currently references ACTION 18 and should be revised to reference ACTION 15.

ACTION 18 requires that an inoperable channel be placed in the tripped condition while ACTION 15 requires that an inoperable channel be placed in the bypassed condition. Both ACTIONS require that the minimum channels operable requirement be met. ACTION 18 was inadvertently included in the initial revision of the Technical Specifications as issued by the NRC and accepted by North Atlantic. The wording for ACTION 15 is the same as in the ACTION statement provided for this function in both Rev. 4 and the Draft Rev. 5 of NUREG 0452, Standard Technical Specifications for Westinghouse Pressurized Water Reactors.

This ACTION statement discrepancy should have been identified by North Atlantic during the review and acceptance of the Technical Specifications. This discrepancy is similar to the undervoltage discrepancy discussed in NRC Inspection Report (IR) 94-24 and its identification at this time can be directly related to the corrective actions developed and implemented by North Atlantic in response to IR 94-24.

ACTION 18 contains an explicit time constraint requiring the inoperable channel to be placed in the tripped condition within 6 hours. ACTION 15 requires that the inoperable channel be placed in the bypass condition and does not include an explicit time requirement. This is consistent with the Standard Technical Specification wording and is acceptable because ACTION statements without explicit time requirements for performance of the ACTION are interpreted by North Atlantic to be performed immediately. In addition, since ACTION 15 requires that the minimum channels OPERABLE requirement be met, the accident analyses and their conclusions are not affected (including single failure) by not including an ACTION time.

Based on a review of the Seabrook Station design and Technical Specifications and those of plants with a similar ESFAS function, it was determined that the existing Technical Specification ACTION reference is incorrect and should be changed from ACTION 18 to reference ACTION 15.

B. Safety Evaluation of Proposed Changes

This section describes the safety evaluation of the proposed changes to the Facility Operating License to correct the ACTION referenced in Table 3.3-3 of Technical Specification 3.3.2. (Engineered Safety Features Actuation System Instrumentation) for Functional Unit 8.b, "Automatic Switchover to Containment Sump/RWST Level Low-Low." This functional unit currently references ACTION 18 and should be revised to reference ACTION 15.

At the end of the injection phase of a Loss of Coolant Accident (LOCA), the RWST will be nearly empty. Continued cooling must be provided by the ECCS to remove decay heat. The source of water for the ECCS pumps is automatically switched to the containment recirculation sump. During recirculation, the low head residual heat removal (RHR) pumps and containment building spray (CBS) pumps draw water from the containment recirculation sump. The RHR pumps pump the water through the RHR heat exchanger, inject the water back into the RCS, and supply the cooled water to the other ECCS pumps.

As discussed in Seabrook Station Licensee Event Report (LER) 93-002 and LER 93-002 Supplement 1, the condition where two channels of the RWST Level Low-Low protection function are prematurely in the tripped condition is not conservative. The resultant RWST Level Low-Low signal could automatically open the train A and B CBS sump isolation valves. If an inoperable RWST Level Low-Low channel were placed in the tripped condition, assuming a single active failure of another RWST Level Low-Low channel in the presence of an SI signal, the containment recirculation sump isolation valves could open prematurely resulting in possible air binding of the CBS and RHR pumps. This switchover from the RWST to the containment sump must occur before the RWST empties to prevent damage to the ESF pumps and a loss of core cooling capability. For similar reasons, switchover must not occur before there is sufficient water in the containment sump to support ESF pump suction. In addition, early switchover must not occur to ensure that sufficient borated water is injected from the RWST. This ensures the reactor remains shut down in the recirculation mode and that the assumptions of the accident analysis are met.

Therefore, revising the ACTION statement for Functional Unit 8.b from ACTION 18 to ACTION 15 eliminates a scenario where the CBS sump isolation valves could open prematurely assuming a single active failure of another RWST Level Low-Low channel in the presence of an SI signal.

II. Markup of Proposed Changes

The enclosed markup pages reflect the currently issued version of Technical Specifications and Bases and the proposed changes.