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The Northeast Utilities System

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United States Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555-0001

Seabrook Station Reply to Notices of Violation

North Atlantic Energy Service Corporation (North Atlantic) provides in the enclosure its response to the Notices of Violation described in Inspection Report 98-01.

Should you have any questions concerning this response, please contact Terry L. Harpster, Director of Licensing Services, at (603) 773-7765.

Very truly yours,

NORTH ATLANTIC ENERGY SERVICE CORP.

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REPLY TO NOTICES OF VIOLATION

NRC Inspection Report 98-01 describes two violations. The first violation involves four individuals failing to comply with radiation work permits and posted instructions. The second violation addresses the adequacy of the instructions developed to assure that modifications installed to the ventilation systems for both residual heat removal pump rooms would not result in an unacceptable reduction of the ventilation system flow. North Atlantic's response to these violations is presented below.

1. Description of the Violations:

The following are restatements of the violations:

A. Seabrook Technical Specification 6.10.1 requires that procedures for personnel radiation protection be prepared consistent with requirements of 10 CFR Part 20 and shall be adhered to for all operations involving personnel radiation exposure. Seabrook procedure RP 9.1, "RCA Access/Egress Requirements," revision 12, requires, in part, that personnel perform work inside the radiation controlled area in accordance with the radiation work permit a... posted instructions.

Contrary to the above, on March 13, 1998, the inspector identified that four individuals performing work inside a posted contaminated area failed to comply with their radiation work permits and the posted instructions.

This is a Severity Level IV violation (Supplement I).

B. 10 CFR 50 Appendix B Criterion III, Design Control, requires, in part, that measures shall be established to assure that the design basis is correctly translated into drawings, procedures, and instructions. These measures shall include provisions to assure that appropriate quality standards are specified and included in design documents and that deviations from such standards are controlled.

Contrary to the above, on March 28, 1998, the inspector identified that adequate instructions were not developed to assure that modifications installed to the ventilation systems for both residual heat removal pump rooms would not result in an unacceptable reduction of the ventilation system flow. This result in an unintentional ventilation flow reduction of approximately 50% to each room.

This is a Severity Level IV violation (Supplement I).

2. Reply to the Notices of Violations:

 Failure to Adhere to Radiation Work Permit and Posted Instructions (VIO 98-01-03)

Reason for Violation

North Atlantic agrees with this violation. On March 13, 1998, the personnel sampling oil and performing corrective maintenance on a temperature sensing element on Containment Building Spray (CBS) pump CBS-P9B did not use protective clothing (i.e. gloves) when touching potentially contaminated surfaces of the pump. All personnel processed out of the Radiological Controlled Area (RCA) exit via whole body frisk booths. Neither the plant personnel nor any of the tools used became contaminated as a result of this activity. Health Physics performed followup surveys of the pump area and found no spread of contamination.

North Atlantic immediately initiated an adverse condition report, conducted comprehensive interviews with the personnel involved, and performed a thorough re-iew of the radiological posting practices. The results of the interviews concluded that the plant personnel working in the vicinity of CBS-P9B did not clearly understand the posting process and which portions of the pump and its base were potentially contaminated. Additionally, these individuals did not exercise a questioning attitude with regard to where the contamination might be located and subsequently did not interrupt their activities to consult with health physics personnel. North Atlantic concluded that the area around CBS-P9B was posted in accordance with the Radiation Protection Program. Health Physics personnel reviewed the existing radiological postings and barricades and determined that they were appropriate and adequate. In addition, the Radiation Worker training program was reviewed and verified that the use of radiological tape as a boundary for a contaminated area was adequately addressed.

Corrective Actions

- 1. The individuals involved were coached and counseled. This activity is complete.
- The Radiation Protection Manager conducted meetings with Performance Engineering, the Fix-It-Now (FIN) team and Maintenance personnel to review and reinforce health physics expectations. This activity is complete.

Date When Compliance Will Be Achieved

North Atlantic is in compliance with Technical Specification 6.10.1 and Seabrook Station Procedure RP 9.1 "Radiation Control Area Access/Egress Requirements."

B. Failure to Implement Adequate Design Controls (VIO 98-01-02)

Reason for Violation

North Atlantic agrees with the violation. In January 1998, Health Physics personnel requested that Engineering provide a temporary means of diverting flow from the duct openings in both residual heat removal (RHR) pump rooms. Engineering provided an MA4.8 "Control of Temporary Equipment" evaluation that approved the diversion of the ventilation flow to minimize the potential spread of contamination from minor system leakage through the bonnet studs of check valves RH-V4 and RH-V40. The MA4.8 evaluation did not provide details for the fabrication of the flow diverter. The flow diverter was removed when the NRC questioned if the flow diverter restricted the air flow. An Adverse Condition Report (ACR) was initiated after a preliminary review determined that the as installed flow diverter restricted air flow. The reduction in cooling due to the flow diverter was analyzed and it was concluded that the small increase in room temperature would not adversely affect the environmentally gualified equipment in these areas. Interviews conducted with Engineering, Technical Support and Health Physics personnel as well as procedure reviews lead to the determination that this violation was caused by a combination of failure to follow procedures and communication weaknesses.

The flow diverters were installed per Procedure MA4.8. This procedure provides a method for evaluating the potential damage to plant equipment from temporary equipment stored in the plant during a seismic event. The procedure states that it should not be used to bypass the Temporary Modification procedure (MA4.3) for operable systems and equipment. MA4.8 was not the correct procedure to follow to implement this change. In MA4.3, examples of items that are temporary modifications are provided. One of the examples is a modification to ventilation that affects area air distribution supporting safety related equipment if not covered by an engineering evaluation. MA4.3 requires the preparation of a 10 CFR 50.59 evaluation in addition to a technical review sheet that requires the preparer to determine if the temporary modification will affect the environmental qualification of any safety related component. Following the instructions in MA4.3 would have been the appropriate procedure to implement this change.

During the interview process, it became apparent that there was a communication weakness regarding the physical installation of the flow diverter. The flow diversion decision evolved over some time between members of Engineering, Technical Support and Health Physics. A temporary modification, under the provisions of MA4.3 was considered and dismissed due to the perceived lack of impact on the operating system. The engineering evaluation attached to the MA4.8 evaluation addressed the diversion of flow only. Again, additional detail to enhance communication effectiveness, such as a sketch or description of the flow diversion, may have triggered a more in-depth evaluation focusing on the potential for adversely affecting the ventilation system functionality. Although MA4.8 has a program restriction "Do not use this procedure to

bypass the temporary modification procedure (MA4.3) for operable systems or components", the personnel involved believed that diverting the flow would not adversely affect the operable system. The engineering evaluation did not discuss reduction of flow since none was intended.

Corrective Actions

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- 1. The individuals involved were coached and counseled. This activity is complete.
- 2. The flow diverters were removed from the RHR pump rooms. This activity is complete.
- 3. An analysis was performed that concluded the reduction in cooling due to the installation of the flow diverters has no safety significance. This activity is complete.

Date When Compliance Will Be Achieved

North Atlantic is in compliance with 10 CFR 50 Appendix B Criterion III "Design Control."