



P.O. Box 300
Seabrook, NH 03874
Telephone (603) 474-9521
Facsimile (603) 474-2987

Ted C. Feigenbaum
Senior Vice President and
Chief Nuclear Officer

NYN-93070

May 7, 1993

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Reference: Facility Operating License No. NPF-86, Docket No. 50-443

Subject: License Amendment Request 93-05: Containment Isolation Design For Purge
Supply and Exhaust Penetrations (TAC No. M86274)

Gentlemen:

North Atlantic Energy Services Corporation (North Atlantic) encloses herein License Amendment Request 93-05. This License Amendment Request is submitted pursuant to the requirements of 10CFR50.90 and 10CFR50.4.

The purpose of License Amendment Request 93-05 is to propose changes to the Seabrook Station Technical Specifications to permit a modification of the Containment Structure Air Purge and Heating Subsystem (CAP) to provide a more reliable means of containment isolation for the two containment penetrations (containment purge supply and exhaust) associated with this system. The primary function of the CAP System is to reduce airborne activity levels in the containment atmosphere prior to and during personnel entry following a reactor shutdown. The system also serves to maintain minimum containment temperature during refueling operations. During all other modes of operation (Modes 1, 2, 3 and 4), the CAP System is precluded from operating pursuant to Technical Specification Limiting Condition for Operation 3.6.1.7a, which requires "[e]ach containment purge supply and exhaust isolation valve shall be OPERABLE and each 36-inch containment shutdown purge supply and exhaust isolation valve shall be closed and locked closed". The containment isolation design for the CAP System in Modes 1-4 currently employs two 36-inch butterfly valves in each penetration as the isolation valves to address 10CFR50, Appendix A, General Design Criteria 56 requirements. The purge supply penetration isolation valves are designated as CAP-V1 (outboard) and CAP-V2 (inboard). The purge exhaust penetration isolation valves are designated as CAP-V4 (outboard) and CAP-V3 (inboard).

The CAP System modification planned by North Atlantic will replace the two outboard containment isolation valves (CAP-V1 and CAP-V4) with testable blind flanges during Modes 1, 2, 3 and 4. The blind flanges will form the containment pressure boundary for the penetration and will provide primary containment isolation in Modes 1, 2, 3, and 4. The isolation valves in the CAP penetrations will no longer be required for containment isolation in Modes 1, 2, 3, and 4. The new configuration for the CAP penetrations will comply with 10CFR50, Appendix A, General Design Criterion 50 requirements. During Modes 5 and 6, to permit operation of the CAP system, the blind flanges will be removed and transition spool pieces will be installed. The outboard isolation valves, CAP-V1 and CAP-V4 will be permanently reinstalled outboard of the transition spool pieces to be available for containment closure in Modes 5 and 6. The use of

106056

member of the Northeast Utilities system

9305110225 930507
PDR ADDCK 05000443
P PDR

AD471

testable blind flanges is a more reliable design for CAP penetration isolation than the use of the 36-inch butterfly valves. In addition, any CAP penetration leakage will be into the Containment Enclosure Ventilation Area (CEVA) which is served by the Containment Enclosure Emergency Air Handling System that is designed to process any leakage from the containment structure and equipment/systems located within the CEVA. Leak testing of the CAP penetrations will be conducted pursuant to 10CFR50 Appendix J, Section III.B as a Type B penetration.

Currently, containment isolation for the purge supply and exhaust penetrations is provided by a butterfly valve and blind flange for each penetration. Valves CAP-V2 (purge supply, inboard) and CAP-V4 (purge exhaust, outboard) were replaced by blind flanges prior to startup from the second refueling outage due to degradation of their leak tightness. The large butterfly valves with their resilient seals are susceptible to seal degradation when the valves are intermittently stroked during surveillance testing and during normal system operation. Alternatively, by replacing the valves with testable blind flanges, their concentric O-ring seals will not have been exposed to the dynamic forces of valve operation which can induce seal wear and degrade the leak tightness of the containment penetration.

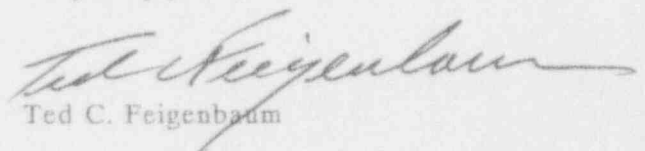
License Amendment Request 93-05 has been reviewed and approved by the Station Operation Review Committee and the Nuclear Safety Audit Review Committee.

As discussed in Section V of the License Amendment Request, the proposed changes do not involve a significant hazards consideration pursuant to 10CFR50.92. A copy of this letter and the enclosed License Amendment Request have been forwarded to the State of New Hampshire State Liaison Officer pursuant to 10CFR50.91(b). In addition, North Atlantic has determined that License Amendment Request 93-05 meets the criteria of 10CFR51.22(c)(a) for a categorical exclusion from the requirements for an Environmental Impact Statement (see Section VII enclosed).

North Atlantic requests NRC review of License Amendment Request 93-05 and issuance of a license amendment by November 7, 1993 (see Section VI enclosed).

Should you have any questions regarding this letter, please contact Mr. Terry L. Harpster, Director of Licensing Services, at (603) 474-9521, extension 2765.

Very truly yours,


Ted C. Feigenbaum

Enclosure

TCF:ALL/tad

United States Nuclear Regulatory Commission
Attention: Document Control Desk

May 7, 1993
Page three

cc: Mr. Thomas T. Martin
Regional Administrator
United States Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Mr. Albert W. De Agazio, Sr. Project Manager
Project Directorate I-4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. Noel Dudley
NRC Senior Resident Inspector
P.O. Box 1149
Seabrook, NH 03874

Mr. George L. Iverson, Director
New Hampshire Office of Emergency Management
107 Pleasant Street
Concord, NH 03301