

New Hampshire Yankee

NYN-90176

September 24, 1990

United States Nuclear Regulatory Commission
Washington, DC 20555

Attention: Document Control Desk

- References:
- a) Facility Operating License NPF-86, Docket No. 50-443
 - b) USNRC Generic Letter No. 89-13, dated July 18, 1989, "Service Water System Problems Affecting Safety-Related Equipment"
 - c) New Hampshire Yankee letter NYN-90037 dated February 9, 1990, "Response to Generic Letter 89-13," T.C. Feigenbaum to USNRC
 - d) USNRC letter dated March 2, 1990, "Generic Letter 89-13 - Service Water Problems Affecting Safety-Related Equipment (TAC No. 74059)," V. Nerses to E.A. Brown

Subject: Supplementary Response to Generic Letter 89-13

Gentlemen:

New Hampshire Yankee (NHY) provided its response to NRC-Recommended Actions I, III, IV and V of Generic Letter 89-13 via Reference (c). The NRC accepted this response in Reference (d) as fulfilling the reporting requirements of the Generic Letter for those NRC-Recommended Actions and looked forward to receipt of a follow-up report pertaining to NRC-Recommended Action II.

This letter supplements the original NHY response and completes the actions pertaining to NRC-Recommended Action II. The initial thermal performance tests have been completed for the Primary Component Cooling Water (PCCW) Heat Exchangers and Diesel Generator Jacket Water (DGJW) Heat Exchangers and a continuing program of periodic retesting of these heat exchangers has been established. Additionally, NHY has decided to include the PCCW System in the confirmational studies described in the Generic Letter under NRC-Recommended Actions IV and V. This decision is the result of our evaluation of interpretations contained in Supplement 1 to Generic Letter 89-13. Additional details are provided in Enclosure 1.

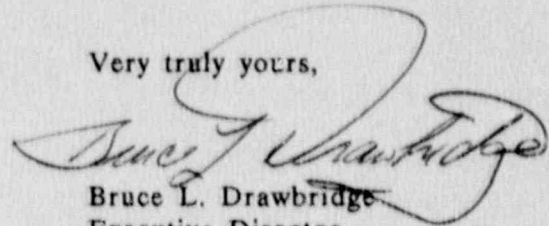
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If you have any questions on this matter, please contact Mr. Geoffrey Kingston at (603) 474-9521, Extension 3371.

Very truly yours,



Bruce L. Drawbridge
Executive Director -
Nuclear Production

TCF:GK/dma

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

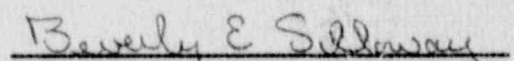
Mr. Noel Dudley
NRC Senior Resident Inspector
P.O. Box 1149
Seabrook, NH 03874

STATE OF NEW HAMPSHIRE

Rockingham, ss.

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Then personally appeared before me, the above-named Bruce L. Drawbridge, being duly sworn, did state that he is Executive Director - Nuclear Production of the New Hampshire Yankee Division of Public Service Company of New Hampshire, that he is duly authorized to execute and file the foregoing information in the name and on the behalf of New Hampshire Yankee Division of the Public Service Company and that the statements therein are true to the best of his knowledge and belief.


Beverly E. Silloway, Notary Public

My Commission Expires: February 28, 1995

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ENCLOSURE 1 TO NYN-90176

SUPPLEMENTARY RESPONSE TO NRC-RECOMMENDED
ACTIONS II, IV AND V OF GENERIC LETTER 89-13

SUPPLEMENTARY RESPONSE TO NRC-RECOMMENDED ACTION II
OF GENERIC LETTER 89-13

NRC-RECOMMENDED ACTION II:

Conduct a test program to verify the heat transfer capability of all safety-related heat exchangers cooled by service water. The total test program should consist of an initial test program and a periodic retest program. Both the initial test program and the periodic retest program should include heat exchangers connected to or cooled by one or more open-cycle systems as defined above.

In implementing the continuing program for periodic retesting of safety-related heat exchangers cooled by service water in open-cycle systems, the initial frequency of testing should be at least once each fuel cycle, but after three tests, licensees and applicants should determine the best frequency for testing to provide assurance that the equipment will perform the intended safety functions during the intervals between tests and meet the requirements of GDC 44, 45, and 46. The minimum final testing frequency should be once every 5 years. A summary of the program should be documented, including the schedule for tests, and all relevant documentation should be retained in appropriate plant records.

NHY SUPPLEMENTARY RESPONSE:

At Seabrook Station, four safety-related heat exchangers are cooled by the Service Water System. These heat exchangers are listed below:

<u>Identification</u>	<u>Description</u>
CC-E-17A	Train A Primary Component Cooling Water Heat Exchanger
CC-E-17B	Train B Primary Component Cooling Water Heat Exchanger
DG-E-42A	Train A Diesel Generator Jacket Water Heat Exchanger
DG-E-42B	Train B Diesel Generator Jacket Water Heat Exchanger

New Hampshire Yankee has completed the initial thermal performance tests on each of these four heat exchangers. Baseline data has been collected, analyzed and compared to the design performance requirements. The results indicate that each heat exchanger is unfouled and performing well within design limits.

New Hampshire Yankee has developed a program to periodically reassess the thermal performance of these heat exchangers. The baseline data collected during the initial thermal performance tests has established the acceptance criteria for periodic retests which will be performed once per refueling cycle for three consecutive cycles. After three retests, the periodic retest interval will be evaluated and may be extended not to exceed five (5) years based upon such factors as the extent of heat exchanger fouling.

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Whenever feasible, retests will be performed prior to commencement of corrective work which could affect heat exchanger thermal performance. Retests will also be performed following the completion of corrective work which could affect heat exchanger thermal performance. If a retest has not been performed within a reasonable period of time prior to commencement of corrective work which could affect heat exchanger thermal performance, the periodic retest interval will revert to once per refueling cycle for three cycles followed by evaluation as described above.

A written summary of this heat exchanger periodic retest program including the schedule for retests is expected to be available on-site for review by October 31, 1990. Other relevant documentation will be retained in appropriate station records as required by approved procedures.

SUPPLEMENTARY RESPONSE TO NRC-RECOMMENDED ACTIONS IV AND V
OF GENERIC LETTER 89-13

NRC-RECOMMENDED ACTION IV:

Confirm that the service water will perform its intended function in accordance with the licensing basis for the plant. Reconstitution of the design basis of the system is not intended. This confirmation should include a review of the ability to perform required safety functions in the event of failure of a single active component. To ensure that the as-built system is in accordance with the appropriate licensing basis documentation, this confirmation should include recent (within the past two years) system walk down inspections. This confirmation should be completed before plant startup following the first refueling outage beginning nine months or more after the date of this letter. Results should be documented and retained in appropriate plant records.

NRC-RECOMMENDED ACTION V:

Confirm that maintenance practices, operating and emergency procedures, and training that involves the service water system are adequate to ensure that safety-related equipment cooled by the service water system will function as intended and that operators of this equipment will perform effectively. This confirmation should include recent (within the past 2 years) reviews of practices, procedures, and training modules. The intent of this action is to reduce human errors in the operation, repair, and maintenance of the service water system. This confirmation should be completed before plant startup following the first refueling outage beginning 9 months or more after the date of this letter. Results should be documented and retained in appropriate plant records.

NHY SUPPLEMENTARY RESPONSE:

Supplement 1 to Generic Letter 89-13, dated April 4, 1990, presented questions and answers read into transcripts of workshops on Generic Letter 89-13. Through the answers to the

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questions, NRC has provided interpretations of original Generic Letter 89-13 recommendations.

One interpretation of Supplement 1 is that NRC-Recommended Actions IV and V of Generic Letter 89-13 apply to closed-loop cooling systems as well as open-loop cooling systems that function to transfer heat from safety-related structures, systems and components to the ultimate heat sink. This interpretation, if adopted by NHY, would have the effect of including the PCCW System within the scope of NRC-Recommended Actions IV and V of Generic Letter 89-13. Reference (c) did not address the PCCW System within the scope of NRC-Recommended Actions IV and V. New Hampshire Yankee has considered this interpretation of Supplement 1 and decided to include the PCCW System within the scope of NRC-Recommended Actions IV and V. This decision will result in the performance of confirmational studies and reviews of PCCW System design and related procedures, practices and training. The additional studies and reviews will be completed prior to restart following the first refueling outage. This schedule is in conformance with the schedule requested by Generic Letter 89-13.