New Hampshire
Yankee

Ted C. Feigenbaum
President and
Chief Executive Officer

NYN- 92061

May 12, 1992

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

Attention: Document Control Desk

References: (a) Facility Operating License No. NPF-86, Docket No. 50-443

(b) NRC Bulletin 88-11, dated December 20, 1988, "Pressurizer Surge Line Thermal Stratification"

Subject: Additional Response to NRC Bulletin 88-11: Pressurizer Surge Line Thermal Stratification

Gentlemen:

NRC Bulletin 88-11 requested licensees to verify that the pressurizer surge line met Code design requirements and licensing commitments considering the effects of thermal stratification. The concern was that thermal stratification could result in high piping stress exceeding design limits for surge line stress and fatigue.

This letter summarizes the previous New Hampshire Yankee (NHY) responses to NRC Bulletin 88-11, and confirms that NHY has completed all associated commitments. Earlier PSNH/NHY letters responding to NRC Bulletin 88-11 are listed in the Enclosure to this letter.

At the time of issuance of Bulletin 88-11, NHY was awaiting issuance of the Low Power License for Seabrook Station. In letters dated March 7, 1989 and April 10, 1989, NHY submitted a qualitative evaluation and other information indicating that thermal stratification would not invalidate the existing stress analysis for the pressurizer surge line. New Hampshire Yankee committed to perform a detailed, quantitative, plant-specific pressurizer surge line stress analysis including the effects of thermal stratification and striping. New Hampshire Yankee also committed to monitor surge line temperature and displacement for a limited time and provide the data to Westinghouse if needed for use in the Westinghouse Owner's Group (WOG) surge line stratification generic program. In an April 24, 1989 letter, the NRC concluded that, with respect to this issue, Seabrook Station could operate at low power without undue risk to public health and safety.

In a letter dated June 30, 1989, NHY submitted the results of the detailed, quantitative, plant-specific surge line stress analysis. This analysis indicated that the pressurizer surge line met the ASME Code design requirements without the need for modification. New Hampshire Yankee also committed to update the ASME Code, Section III, Class 1 Piping Stress Analysis for Seabrook Station to address pressurizer surge line stratification concerns.

A150
1/1

In an October 24, 1989 letter, the NRC concluded that the Seabrook Station pressurizer surge line met applicable design requirements. In this letter, the NRC requested that surge line temperature and displacement data be monitored until the first refueling outage to ensure that the design thermal transients and stratification temperature profiles used to verify code compliance were indeed bounding. In a letter dated December 1, 1989, NHY committed to continue monitoring the requested surge line parameters during the first operating cycle of Seabrook Station.

In April 1990, the ASME Code, Section III, Class 1 Piping Stress Analysis for Seabrook Station was updated to address pressurizer surge line stratification concerns.

New Hampshire Yankee has reviewed the pressurizer surge line temperature and displacement data collected during the first operating cycle of Seabrook Station and verified that this data was enveloped by the thermal stratification design transients used in the structural and fatigue evaluation of the pressurizer surge line.

During this entire period, the WOG has provided the NRC with periodic status reports regarding the generic analysis of surge line stratification.

Based on the above information, NHY has determined that the pressurizer surge line at Seabrook Station meets applicable design requirements. New Hampshire Yankee has completed all commitments associated with NRC Bulletin 88-11, and believes that this issue can be considered closed. If you have any questions on this matter, please contact Mr. James M. Peschel, Regulatory Compliance Manager at (603) 474-9521, Extension 3772.

Very truly yours,

Ted C. Feigenbaum

Enclosure

TCF:GK/ss

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

Mr. Gordon E. Edison, Sr. Project Manager
Project Directorate I-3
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

ENCLOSURE 1 TO NYN-92061
LIST OF PREVIOUS PSNH/NHY RESPONSES
TO NRC BULLETIN 88-11

LIST OF PREVIOUS PSNH/NHY RESPONSES TO NRC BULLETIN 88-11

(1) PSNH Letter NYN-88163 dated December 27, 1988, "Interim Response to NRC Bulletin 88-11: Pressurizer Surge Line Thermal Stratification," G. S. Thomas to USNRC

(2) PSNH Letter NYN-88164 dated December 30, 1988, "Interim Response to NRC Bulletin 88-11: Pressurizer Surge Line Thermal Stratification," G. S. Thomas to USNRC

(3) PSNH Letter NYN-89023 dated March 7, 1989, "Response to NRC Bulletin 88-11: Pressurizer Surge Line Thermal Stratification," G. S. Thomas to USNRC

(4) NHY Letter NYN-89037 dated April 10, 1989, "Response to NRC Bulletin 88-11: Pressurizer Surge Line Thermal Stratification," G. S. Thomas to USNRC

(5) NHY Letter NYN-89077 dated June 30, 1989, "Follow-up Response to NRC Bulletin 88-11: Pressurizer Surge Line Thermal Stratification," T. C. Feigenbaum to USNRC

(6) NHY Letter NYN-89159 dated December 1, 1989, "Additional Response to NRC Bulletin 88-11: Pressurizer Surge Line Thermal Stratification," T. C. Feigenbaum to USNRC