New Hampshire
Yankee

Ted C. Feigenbaum
President and
Chief Executive Officer

NYN-90211

December 14, 1990

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

Attention: Document Control Desk

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

(b) USNRC Generic Letter 88-17 dated October 17, 1988, "Loss of Decay Heat Removal"

Subject: Request for License Amendment: Safety Injection Pump Operability in a Reduced Inventory Condition

Gentlemen:

Pursuant to 10 CFR 50.90, New Hampshire Yankee (NHY) proposes to amend the Seabrook Station Operating License (Facility Operating License NPF-86) by incorporating the proposed changes, provided herein as Enclosure 1, into the Seabrook Station Technical Specifications. These proposed changes will allow a Safety Injection (SI) pump to be made OPERABLE in Modes 5 and 6 to support operation in a reduced inventory condition in accordance with the recommendations of Generic Letter 88-17 [Reference (b)]. Revised BASES are provided as Enclosure 2 to this letter. In accordance with the provisions of 10 CFR 50.36, these BASES are not considered to be part of the Technical Specifications.

The basis for these proposed changes is provided in Enclosure 3, which includes a safety evaluation of the proposed changes. Based upon the information contained in Enclosure 3, NHY has concluded that the proposed changes do not involve an Unreviewed Safety Question pursuant to 10 CFR 50.59, nor do they involve a Significant Hazards Consideration pursuant to 10 CFR 50.92.

New Hampshire Yankee has reviewed the proposed changes in accordance with the criteria specified in 10 CFR 50.92 and has determined that the proposed changes would not:

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1. Involve a significant increase in the probability or consequences of any accident previously evaluated. The only accident adversely affected by the proposed change is the low temperature overpressurization mass addition transient. The probability of this event is not affected since the operable Safety Injection (SI) pump would only start in response to initiators such as an inadvertent 'S' signal which would start or realign the flow path of the operable Centrifugal Charging pump. The maximum possible flow rate into the Reactor Coolant System (RCS) during the mass addition transient will be increased, however this does not increase the consequences of this type of accident. The consequences of such an event would be mitigated by ensuring that a suitable vent path in the RCS pressure boundary exists prior to making an SI pump operable. This vent will prevent any transient induced pressure increase from exceeding the 10CFR50 Appendix G pressure limit. Additionally, by providing an additional source of reactor vessel inventory, the proposed change reduces the consequences of a malfunction of the Residual Heat Removal (RHR) system.

2. Create the possibility of a new or different kind of accident from any previously evaluated. Allowing a SI pump to be operable in these modes creates the possibility of a more severe mass addition transient than those within the capability of the Cold Overpressure Mitigation System (COMS). The proposed requirement to provide a vent path prior to making the SI pump operable provides overpressure protection for the Appendix G limit similar to the existing requirement in Technical Specification 3.4.9.3c to provide an RCS vent of at least 1.58 square inches in the event that neither of the COMS alternate relief valve configurations is available. The opening of a small vent in the RCS pressure boundary to provide overpressure protection is not a new or different approach than that currently used for low temperature overpressure protection and therefore does not create the possibility of a new or different type of accident than any previously evaluated.

3. Involve a significant reduction in a margin of safety. The proposed changes would allow one SI pump to be made operable in Modes 5 and 6 to support operation in a reduced inventory condition, creating the possibility of a mass addition transient more severe than those considered in the COMS design basis. The requirement to provide a suitably sized RCS vent prior to making the SI pump operable will ensure that no violation of Appendix G limits will occur for such an event. This provides protection of the reactor vessel Appendix G limit independent of the COMS system. Therefore the proposed changes do not result in a reduction in the margin of safety.

New Hampshire Yankee requests approval of these proposed changes by April 30, 1991. If you have any questions, please contact Mr. Terry L. Harpster, NHY Director of Licensing Services, at (603) 474-9521, extension 2765.

Very truly yours,

Ted C. Feigenbaum

TCF:RRB/dma/ssl

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