

NYN-90065

March 6, 1990

United States Nuclear Regulatory Commission
Washington, DC 20555

Attention: Document Control Desk

- References: (a) Facility Operating License NPF-67, Docket No. 50-443
- (b) PSNH Letter NYN-87136 dated November 23, 1987, "NUREG-0737, TASK II.D.1, Performance Testing of Relief and Safety Valves", G. S. Thomas to USNRC
- (c) NHY Letter NYN-89057 dated May 8, 1989, "NRC Request for Additional Information Regarding NUREG-0737, Item II.D.1", G. S. Thomas to USNRC
- (d) NRC Letter dated June 20, 1989, "Technical Evaluation Report on NUREG-0737, Item II.D.1", V. Nerses to E. A. Brown

Subject: Request for Information Regarding Relief and Safety Valve Testing

Gentlemen:

In Reference (d), the NRC Staff provided its consultant's (EG&G Idaho, Inc.) Technical Evaluation Report (TER) regarding Seabrook Station's compliance with the requirements of NUREG-0578 and NUREG-0737, Item II.D.1. New Hampshire Yankee (NHY) had previously submitted information to the NRC Staff regarding performance testing and functional performance capabilities of Seabrook Station's pressurizer safety and relief valves in References (b) and (c). In addition, NHY provided certain information in a conference call with the NRC Staff and EG&G. The purpose of this letter is to document that information provided in the conference call as requested in the EG&G TER.

NHY provides the following information to confirm and document those discussions:

- ° Seabrook Station utilizes Crosby Model 6M6 Safety Valves. The Seabrook Station Safety Valves are comparable to the Crosby Valves tested in the EPRI program. The Seabrook Safety Valves' ring settings were factory set. Additionally, the pressure settings were not changed once installed at Seabrook Station. Therefore, NHY believes the EPRI results with factory ring settings demonstrates operability and applicability to the Seabrook safety valves.

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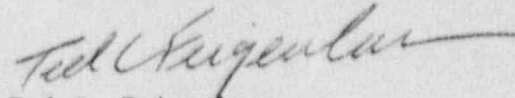
- ° During the EPRI testing of the Westinghouse 3GM99 Block Valves, which utilized a Limitorque SB-00-15 Motor Operator, the Operator was rewired for limit closure on valve position rather than on torque. Seabrook Station utilizes the same block valve design as that valve tested in the EPRI program. Those changes to the EPRI program block valve design have been incorporated into the design of the Seabrook Station block valves. Therefore, NHY believes that the Seabrook block valve design is applicable to the EPRI tested block valves.
- ° In Reference (c), NHY provided updated water temperature conditions used to evaluate safety and relief valve operability during a feedwater line break (FWLB) as provided in Westinghouse Report WCAP-11677, dated January 1988. Although these updated FWLB temperature conditions, (initial water relief temperature 605°F and final water relief temperature 603°F), were higher than those conditions, (i.e., 567°F) previously used in the initial Seabrook Station thermal hydraulic analysis, NHY did perform a series of RELAP5/TULIP analyses which demonstrated that the effects of higher water temperatures were still bounded by those calculations, using the original condition of 567°F. Based on its reevaluation of the discharge valve forces using higher water temperatures of 605°F and 650°F, NHY believes that the results provided in the earlier analyses using a colder water temperature (i.e., 567°F), yielded greater forces than those which could be achieved, utilizing higher water temperatures and that the original analysis is still the bounding case.
- ° Upstream safety and relief valve piping and support load combinations and stress limits were evaluated consistent with the EPRI program guidelines. Downstream piping was analyzed to ASME/ANSI B31.1 Power Piping Codes. Downstream pipe supports were analyzed to approximately 80% of the ASME Code Subsection NF allowables. NHY believes that the approach and design of the downstream piping supports resulted in a conservative design with respect to EPRI recommendations.
- ° In Reference (b), NHY provided additional information based on the latest revision to the Seabrook Station thermal hydraulic and stress analysis. Load Combinations in these analyses did not include loss of coolant accident (LOCA) loads. The LOCA load was replaced with the load effects due to valve discharge. As discussed, NHY noted that the significance of the LOCA load relative to the loading caused by discharge forces was minimal. NHY maintains that overall loading combination and its effects have been conservatively considered in its design.

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

Very truly yours,


Ted C. Feigenbaum

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