

YANKEE ATOMIC ELECTRIC COMPANY

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2.C.2.1
FYR 85-99

September 26, 1985

United States Nuclear Regulatory Commission
Washington, DC 20555

Attention: Mr. John A. Zwolinski, Chief
Operating Reactors Branch No. 5
Division of Licensing

References: (a) License No. DPR-3 (Docket No. 50-29)
(b) Letter, USNRC to YAEC, NYR 83-14, dated February 1, 1983
(c) Letter, YAEC to USNRC, FYR 84-30, dated March 5, 1984
(d) Letter, USNRC to YAEC, NYR 85-20, dated January 31, 1985
(e) Letter, YAEC to USNRC, FYR 85-29, dated March 14, 1985

Subject: Equipment Qualification

Dear Sir:

Reference (b) requested that Yankee evaluate the impact of heating steam line breaks on safety-related equipment. The results of this evaluation were provided in Reference (c). Reference (d) requested additional information on this response. The additional information was provided in Reference (e).

Recent discussions with the staff on the subject of a heating steam line break in the Diesel Generator Building have resulted in new information which requires a revision to the information provided by Yankee in References (c) and (e). Attached is the results of a revised assessment of the impact of a Diesel Generator Building heating steam line break on the ability to safely shutdown.

We trust this information is satisfactory; however, if you have any questions, please contact us.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

George Papanic Jr.
George Papanic, Jr.
Senior Project Engineer - Licensing
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ATTACHMENT

Assessment of Heating Steam Line Breaks In the Diesel Generator Building (DGB)

Equipment from the equipment qualification master list, located in the DGB, include equipment for the Safety Injection System and the Emergency Power System.

In the event of a heating steam line break in the DGB, the resulting harsh environment could disable the Safety Injection System. However, this system is not required to mitigate this break. It could also cause a loss of power to the three (3) 480 volt emergency busses and the loads normally fed from them. A review of all affected loads has determined that the only effect on the normal operation of the plant would be the loss of power to Distribution Cabinet A. This would result in a loss of various instrumentation in the Main Control Room. The loss of power would not lead to an automatic plant trip.

Battery No. 3 and dc Distribution Switchboard No. 3 are located in the DGB. They provide power to dc Distribution Switchboard No. 3A in the Switchgear Room. One load off of Switchboard No. 3A is Main Coolant Flow Cabinet B. A loss of power to this cabinet will result in a reactor and a turbine trip.

In order to prevent this from occurring, Yankee has isolated the heating steam lines to the DGB with valves outside of the DGB. These lines will remain isolated until excess flow check valves are added in the lines. Once this modification is completed, a heating steam line break will result in closure of the excess flow check valves before a harsh environment is created in the DGB.