



MAINE YANKEE ATOMIC POWER COMPANY •

Box 456, RFD 2
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July 29, 1982
MN-82-148

JHG-82-140

United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Attention: Mr. Ronald C. Haynes, Regional Administrator

- References:
- (a) License DPR 36 (Docket 50-309)
 - (b) USNRC Letter to MYAPCo dated 7-22-82, CAL 82-20
 - (c) MYAPCo Letter to USNRC dated July 27, 1982 - "Refueling Water Storage Tank Temperature Upper Limit and Water Level Lower Limit" - MN-82-146
 - (d) MYAPCo letter to USNRC dated July 28, 1982 - "Refueling Water Storage Tank Temperature Upper Limit and Water Level Lower Limit" - Supplement - MN-82-147

Subject: Refueling Water Storage Tank Temperature Upper Limit and Water Level Lower Limit

Dear Sir:

This letter further supplements Reference (c).

The "calculations of record" referred to in Reference (c) were initiated in response to concerns raised by Maine Yankee's NSSS vendor, Combustion Engineering, relating to adequacy of NPSH for ECCS pumps under certain conditions. The vendor correctly noted that in preoperational testing, the Maine Yankee pumps had delivered flow in excess of the performance curves.

Maine Yankee initiated a reanalysis of the NPSH aspects of ECCS performance which included in its scope all safeguards pumps. The analysis involved a combination of measurements taken during preoperational testing of safeguards fluid systems and calculations of piping system characteristics where measurements were not available.

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Fluid system performance data were adjusted to account for differences between test conditions and anticipated limiting safeguards systems service conditions. Calculations of piping system characteristics were generally conservative. For example, in safeguards pumps suction piping, it was assumed that elbows were short radius and threaded, which would produce higher calculated piping pressure drops and a corresponding reduction in calculated available NPSH.

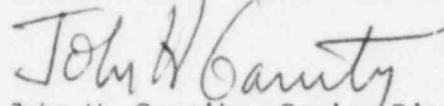
The reanalysis included an evaluation of NPSH adequacy during both the injection and the recirculation phases, and considered the effects of using an LPSI pump for long term cooling instead of a HPSI pump (this option is discussed in the FSAR).

The plant operations bounds described in Reference (c, d) are based in part on the results of the analysis described above. In addition, preliminary results of an ongoing reanalysis indicate that the calculations of record are conservative.

Together, these facts constitute justification for continued operation pending completion of the ongoing reanalysis.

Very truly yours,

MAINE YANKEE ATOMIC POWER COMPANY



John H. Garrity, Senior Director
Nuclear Engineering and Licensing

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