



April 11, 1994

Docket No. 50-213
B14791

Re: 10 CFR 50.90

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Haddam Neck Plant
Request for Information on
Proposed Revision to Technical Specifications
Additional Atmospheric Steam Dump

In a letter dated May 4, 1993,⁽¹⁾ Connecticut Yankee Atomic Power Company (CYAPCO) submitted to the NRC Staff a proposed revision to the Haddam Neck Plant technical specifications. In that letter, CYAPCO informed the Staff that during the Cycle 17 refueling outage, four main steam safety valves (MSSVs)(one per steam line) were being replaced with valves that would significantly increase the remote manual atmospheric steam dump capability of the Haddam Neck Plant.

A recent conference call with the NRC Staff on this proposed license amendment identified a Staff concern with regard to the remote actuation feature of the MSSVs. Specifically, the inquiry was directed towards Technical Specification Section 3.7.1.1.2, ACTION c. The ACTION statement reads, "With the remote actuation function of three or more main steam line safety valves associated with operating steam generators inoperable, restore the remote actuation function on at least two of the required valves to OPERABLE status within 72 hours; otherwise be in HOT STANDBY within the next 6 hours and HOT SHUTDOWN, with RCS pressure less than 900 psig, within the following 30 hours."

The provision to be in HOT SHUTDOWN with reactor coolant system (RCS) pressure less than 900 psig was incorporated to resolve a Staff concern.⁽²⁾

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- (1) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Haddam Neck Plant, Proposed Revision to Technical Specifications, Additional Atmospheric Steam Dump," dated May 4, 1993.
 - (2) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Haddam Neck Plant, Request for Additional Information. Proposed Revision to Technical Specification, Additional Atmospheric Steam Dump," dated January 25, 1994.

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The Staff has asked CYAPCO to consider what actions would be taken if the Haddam Neck Plant were in ACTION statement "c" and a steam generator tube rupture (SGTR) subsequently occurred coincident with a loss of off-site power.

It is CYAPCO's belief that a SGTR, when RCS pressure is less than 900 psig, is unlikely because differential pressure across steam generator tubes is significantly less than when operating. Also, heat flux across the tubes is minimal.

If a SGTR were to occur while in this condition, the MSSVs would not lift since the set point pressure for the lowest MSSV on each line is 985 psig $\pm 3\%$ (955 psig on the low end of the tolerance band). The following actions would be taken:

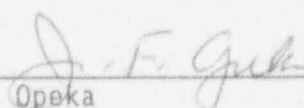
- Emergency Procedure E-3 (Steam Generator Tube Rupture), can be applied to provide guidance to operators on mitigation of this event. Step 3c requires the operators to locally close steam supply isolation valve(s) from ruptured SG(s) to stop steam flow to the atmospheric vent and turbine driven AFW pump(s). Actions are also provided to isolate auxiliary feedwater flow to the ruptured steam generators (step 4c).
- Step 13 of Emergency Procedure E-3 instructs the operator to initiate a cooldown. Step 13b (Response Not Obtained) instructs the operator to use the Terry Turbine steam supply valves and/or the atmospheric dump valve for steam generator cooling, if the main condenser is unavailable for various reasons including loss of off-site power.

Since this event is assumed to start with RCS pressure less than 900 psig, the reactor has been shut down for at least several hours and decay heat is low in comparison to shutdown immediately following a run at full power. The steam required to run the Terry Turbine(s) alone should be sufficient to prevent plant heatup and primary side repressurization. If this is insufficient, the capacity of the atmospheric dump valves would be more than sufficient to control plant cooldown.

If you have any further questions, please contact my staff.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY



J. F. Opeka
Executive Vice President

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cc: T. T. Martin, Region I Administrator
A. B. Wang, NRC Project Manager, Haddam Neck Plant
W. J. Raymond, Senior Resident Inspector, Haddam Neck Plant