

Maine Yankee

RELIABLE ELECTRICITY FOR MAINE SINCE 1972

EDISON DRIVE • AUGUSTA, MAINE 04336 • (207) 622-4868

December 31, 1990
MN-90-131

SEN-90-345

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

References (a) License No. DPR-36 (Docket No. 50-309)
(b) MYAPCO Letter to USNRC dated December 28, 1990 (MN-90-127)

Subject: December 1990 Steam Generator Tube Inspection - Request for
Additional Information

Gentlemen:

With Reference (b), Maine Yankee requested the NRC Staff review and approve a change to Technical Specification 4.10 modifying the steam generator tube inspection to be conducted during Maine Yankee's December 1990 shutdown. Maine Yankee requested this change to substitute a random inspection of 1028 tubes in steam generator #1 with steam blanket tube inspections in steam generators #2 and #3. The following provides additional information requested by the Staff to support Maine Yankee's requested Technical Specification change.

We believe the U-bend defect which caused the leak is caused by a mechanism which is limited to the steam blanket region (Rows 5-8). In steam generator #1, we inspected all tubes in Rows 1-11 and found no U-bend defects outside the steam blanket region. Technical Specifications require inspection of additional 1028 tubes in steam generator #1 and do not require inspection of any tubes in the other steam generators. This inspection would result in additional plant outage time, additional personnel radiation exposure, and is not expected to identify any U-bend defects. In the past, 100% of our pluggable U-bend axial crack defects have been in the steam blanket region.

Since we desire to identify any other U-bend defects in our steam generators (if any exist) while minimizing plant outage time and personnel radiation exposure, we believe that it is prudent to inspect the entire steam blanket region of the #2 and #3 steam generators. This inspection program focusses on the areas of all 3 steam generators most susceptible to U-bend defects similar to the one which required us to shut down.

SEN90345.LTR

AOAT
11
1

9101080320 901231
PDR ADOCK 05000309
PDR
050013

Maine Yankee

UNITED STATES NUCLEAR REGULATORY COMMISSION
Attention: Document Control Desk

MN-90-131
Page Two

We are requesting an emergency Technical Specification change in accordance with 10CFR50.91(a)5 to allow us to perform a steam generator inspection program which we believe is prudent from a technical standpoint while avoiding unnecessary plant outage time and personnel exposure. The need for this technical specification change could not have been foreseen in that we had no reason to suspect that the tube in Row 6 line 43 would fail due to a U-bend defect thereby creating the need for a tube inspection program which differs from the one described in technical specifications. Failure to grant an emergency Technical Specification change would prevent Maine Yankee from resuming power operation upon completion of planned testing and repairs, and would result in significant additional personnel radiation exposure.

The proposed Technical Specification change provides reasonable assurance that a steam generator tube rupture will not occur during the remainder of the current operating cycle. It therefore reduces the probability of a design basis steam generator accident. No other design basis accidents are affected by this change. This change does not increase the probability of an accident not analyzed in the FSAR. It increases margin to safety by assuring similar defects to the one which resulted in a tube leak do not exist. A significant hazards review for this change is attached.

We trust this information is satisfactory. Please contact us should you have any questions.

Very truly yours,



S. E. Nichols
Manager, Nuclear Engineering & Licensing

SEN:EAS

Attachment

c: Mr. Thomas T. Martin
Mr. E. H. Trottier
Mr. Charles S. Marshall

SEN90345.LTR

Maine Yankee

ATTACHMENT

SIGNIFICANT HAZARDS REVIEW

The proposed change to Technical Specification 4.10 has been reviewed in accordance with 10CFR50.92, and it has been determined that the change does not involve a significant hazards consideration.

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. Modification of the steam generator testing requirements for Maine Yankee's December 1990 shutdown requires testing the critical areas of all three steam generators in lieu of an expanded test campaign in the #1 steam generator. In steam Generator #1, 100% of the tubes in rows 1-11 were inspected and no U-bend defects were found outside the steam blanket region. Without this change, Technical Specifications require inspection of an additional 1028 tubes in the #1 steam generator and do not require inspection of any tubes in the other steam generators. By inspecting the critical area of more than one steam generator, we believe the probability and/or consequences of previously evaluated accidents (e.g., steam generator tube rupture) are reduced.
2. The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated. The proposed inspection campaign requires inspection of 100% of the steam blanket region in more than one steam generator to ensure that additional tubes will not fail due to U-bend axial cracking. This modified inspection campaign does not introduce the possibility of a new or different accident.
3. The proposed change does not involve a significant reduction in the margin of safety. This change modifies an inspection requirement of Technical Specifications and does not impact the plant design or equipment. The modified inspection requirements concentrate steam generator tube inspections in those areas believed to be susceptible to U-bend axial cracking. For these reasons, we believe the proposed change increases the margin of safety by inspecting the critical areas of more than one steam generator in lieu of additional inspections on non-critical areas of the #1 steam generator.

For the above reasons, Maine Yankee has concluded that the proposed change to Technical Specification, 4.10 "Steam Generator Tube Surveillance" does not involve a significant hazards consideration.