



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 139 TO FACILITY OPERATING LICENSE NO. DPR-28
VERMONT YANKEE NUCLEAR POWER CORPORATION
VERMONT YANKEE NUCLEAR POWER STATION
DOCKET NO. 50-271

1.0 INTRODUCTION

On January 25, 1988, the NRC issued Generic Letter (GL) 88-01, "NRC Position on IGSCC (Intergranular Stress Corrosion Cracking) in BWR Austenitic Stainless Steel Piping." Vermont Yankee Nuclear Power Corporation (VY or the licensee) responded to the GL for the Vermont Yankee Nuclear Power Station (VYNPS) in a letter dated July 27, 1988. The NRC staff provided its Safety Evaluation (SE) for VYNPS in a letter dated February 14, 1990, in which the staff found the licensee response acceptable with the exceptions that VY incorporated leakage detection requirements in administrative procedures rather than in the plant Technical Specifications (TSs) as requested in the GL, and that the licensee's leakage detection procedure provided for averaging of detected leakage over a 24-hour period. By letter dated March 8, 1990, the licensee responded to the staff's SE stating its belief "that the combination of existing TS and administrative controls fully comply with the intent of the Staff's position on coolant leakage."

On February 4, 1992, the NRC issued GL 88-01, Supplement 1, in which the staff "determined that incorporation of the leakage detection requirements in an administrative document is not acceptable." By letter dated May 22, 1992, the NRC staff responded directly to VY's letter of March 8, 1990, reaffirming the unacceptability of the licensee's response regarding leakage detection requirements and requesting that VY submit a proposed TS change consistent with the GL. By letter dated September 21, 1992, VY claimed that the staff's request constituted a backfit as defined in 10 CFR 50.109 in that the cost could not be justified by any comparable safety improvement. Following discussions with the staff, the licensee withdrew the backfit claim in a letter dated October 27, 1992, and submitted a proposed TS change in a letter dated July 14, 1993. The staff confirmed the licensee's withdrawal of the backfit claim and reaffirmed its position in a letter to the licensee dated January 21, 1993.

The change proposed by VY in its letter dated July 14, 1993, would: (1) limit the increase in reactor coolant leakage into the primary containment from unidentified sources to not more than 2 gpm within any 24-hour period; (2) include a reference to GL 88-01 as the basis for the 2 gpm limit on increases in unidentified leakage; and (3) require compliance with GL 88-01 when performing the inservice inspection program for the piping identified in the GL.

2.0 EVALUATION

The licensee proposes to modify the TS as follows:

Existing TS 3.6.C.1 is renumbered TS 3.6.C.1a and new TS 3.6.C.1b is added as follows: "While in the run mode, reactor coolant leakage into the primary containment from unidentified sources shall not increase by more than 2 gpm within any 24 hour period."

TS 4.6.C.1 is revised to require checking and logging of reactor coolant system leakage "once per shift, not to exceed twelve hours" in lieu of "at least once per day."

The following statement is appended to TS 4.6.E.1 regarding surveillance requirements for structural integrity: "Inservice inspection of piping, identified in NRC Generic Letter 88-01, shall be performed in accordance with the staff positions on schedule, methods, and personnel and sample expansion included in the Generic Letter."

Existing TS 3.6.C.3 provides the action statement requiring initiation of an orderly shutdown and placement of the reactor in the cold shutdown condition within 24 hours if "these conditions cannot be met." "These conditions" would include the new requirement of Specification 3.6.C.1b.

The proposed changes to TS 3.6.C.1 would establish a limit on the rate of increase of unidentified leakage during operations in the run mode and require initiation of a plant shutdown if such leakage increases by more than 2 gpm within any 24-hour period. The staff finds that this change is consistent with GL 88-01 and is therefore acceptable.

The proposed change to TS 4.6.C.1 would require that leakage measurements be taken once per shift not to exceed 12 hours. In GL 88-01, the staff requested that such measurements be taken every 4 hours. In Supplement 1, however, the staff found that "monitoring reactor coolant system (RCS) leakage every 4 hours creates an unnecessary administrative hardship for plant operators.

Thus, RCS leakage measurements should be taken at least once per shift, not to exceed 12 hours." The staff finds that the proposed change is consistent with the staff's position and is therefore acceptable.

The proposed change to TS 4.6.E.1 would add a statement regarding conduct of inservice inspection of piping susceptible to IGSCC as discussed in the GL. The staff finds that the statement is consistent with the guidance provided in GL 88-01, and is therefore acceptable.

The licensee has also proposed two changes to the TS Bases. Specifically, references to GL 88-01 are provided as the basis for the new requirements for leakage monitoring and inservice inspection in Specifications 3/4.6.C and 3.6.E. The staff has no objections to the proposed Bases changes.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Vermont State Official was notified of the proposed issuance of the amendment. The State Official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding of no significant hazards consideration, and there has been no public comment on such finding (59 FR 12370). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: June 1, 1994