



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 84 TO FACILITY OPERATING LICENSE NO. DPR-68
TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT, UNIT 3
DOCKET NO. 50-296

1.0 Introduction

By letter from D. B. Vassallo to H. G. Parris dated August 26, 1983, TVA received an Order requiring certain pipe inspection actions on Browns Ferry Unit 3. As reported in an inspection report (letter from J. A. Domer to H. R. Denton dated August 9, 1984) an unacceptable indication was found in the head spray piping. The piping was removed from service. By letter dated May 10, 1984 (TS 195 Supp 1), the Tennessee Valley Authority (TVA/the licensee) requested an amendment to Facility Operating License No. DPR-68 for the Browns Ferry Nuclear Plant, Unit 3 to delete Technical Specifications associated with the head spray piping containment penetration.

2.0 Evaluation

The Unit 3 modification removes that portion of the reactor vessel head spray line from the vessel head to just inside primary containment.

The vessel head spray line is a subsystem of the residual heat removal (RHR) system. It may be placed in operation during a normal shutdown and cooldown. When the reactor is cooling down, part of the flow from the RHR system may be diverted to a spray nozzle in the reactor head. This spray maintains saturation conditions in the reactor vessel head volume by condensing steam. This operational option mode has never been used at Browns Ferry Unit 3. The head spray line has no safety function and is not used in any accident analysis. No credit is given for using the head spray to safely shutdown the plant during an accident.

The proposed amendment would change the Appendix A Technical Specifications to:

- (1) delete operability requirements for primary containment isolation valves being eliminated as a result of the plant modification;
- (2) delete periodic leak rate testing requirements for these isolation valves; and
- (3) change the name of containment penetration number "X-17" from "RHR head spray line" to "blank."

These changes reflect deactivation of the primary containment isolation valves and the testable penetration originally provided for the reactor vessel head spray piping. The penetration will continue to be tested in accordance with 10 CFR 50, Appendix J requirements; however, because the penetration piping will be sealed ("capped off") the valves no longer need be operable or leak-tight. Because the penetration will no longer serve any function it will be identified as "X-17 blank." The licensee's proposal is, therefore, acceptable.

3.0 Environmental Considerations

The amendment involves changes in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in a surveillance requirement. The 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 that the amendment involves no significant hazards consideration and there has been no public comment on such finding. 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.

4.0 Conclusion

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: November 26, 1984