



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 72 TO
FACILITY OPERATING LICENSE NO. NPF-33
ENERGY OPERATIONS, INC.
WATERFORD STEAM ELECTRIC STATION, UNIT 3
DOCKET NO. 50-382

1.0 INTRODUCTION

By application dated May 8, 1991, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Waterford Steam Electric Station, Unit 3 (Waterford 3), Technical Specifications (TS). The changes would include additional provisions to protect against low-temperature overpressure of the primary system. The amendment is in response to Generic Letter 90-06, "Resolution of Generic Issue 70, 'Power-Operated Relief Valve and Block Valve Reliability,' and Generic Issue 94, 'Additional Low-Temperature Overpressure Protection for Light-Water Reactors,' Pursuant to 10 CFR 50.54(f)," dated June 25, 1991.

Generic Issue (GI) 70, "Power-Operated Relief Valve and Block Valve Reliability," concerns the reliability of power-operated relief valves (PORVs) and block valves and their safety significance in pressurized water reactor plants. Since Waterford 3 does not have PORVs, this issue is not addressed here.

GI-94, "Additional Low-Temperature Overpressure Protection for Light-Water Reactors," concerns the implementation of the requirements set forth in the resolution of Unresolved Safety Issue (USI) A-26, "Reactor Vessel Pressure Transient Protection (Overpressure Protection)." The GI discussed the continuing occurrence of overpressure events and the need to further restrict the allowed outage time for a low-temperature overpressure protection (LTOP) channel in Operating Modes 4, 5, and 6. This issue concerns only Westinghouse and Combustion Engineering facilities.

2.0 EVALUATION

The actions proposed by the NRC staff to improve the availability of the LTOP system substantially increase the overall protection of the public health and safety, and a determination has been made that the attendant costs are justified in view of this increased protection. The technical findings and the regulatory analysis related to GI-94 are discussed in NUREG-1326, "Regulatory Analysis for the Resolution of Generic Issue 94, Additional Low-Temperature Overpressure Protection for Light-Water Reactors."

The changes to the Waterford 3 TS proposed in the licensee's letter of May 8, 1991, are consistent with those proposed in the staff's generic letter. For example, one of the proposed modifications to the TS concerns plant operation in Modes 4, 5, or 6 with an inoperable LTOP channel. The licensee has adopted the staff position that continued operation under such conditions not exceed 24 hours.

Two significant exceptions to GL 90-06 are included in the amendment. The first exception involves TS changes required by GL 90-06 to address a Branch Technical Position (RSB 5-2, "Overpressure Protection of Pressurized Water Reactors While Operating at Low Temperatures"). The position identified the need for additional restrictions when the design base for LTOP includes restrictions on safety injection pump operability and/or differential temperature restrictions for reactor coolant pump (RCP) restart. These changes would add restrictions to the TS on the number of operable charging and high pressure safety injection (HPSI) pumps allowed and establish conditions for the restart of a RCP. At Waterford 3, each relief valve that provides overpressure protection of the reactor coolant system (RCS) during low-temperature conditions is sized for transients due to the simultaneous, inadvertent operation of all three HPSI pumps and all three charging pumps with the pressurizer backup heaters in operation. Since the maximum number of charging and HPSI pumps is already assumed in LTOP design, restricting the number of makeup or injection pumps in the TS is unnecessary. Additionally, TS 3.4.1.3 currently provides conditions for the restart of an RCP that satisfy GL 90-06 recommendations.

Another exception is to the normal maximum temperature set by the Limiting Condition of Operation for the RCS cold leg in Mode 4. A footnote to Waterford 3 TS 3.4.8.3 specifies 260 degrees F, instead of the normal 285 degrees F, as the maximum temperature during inservice leak and hydrostatic testing. This footnote, which was contained in an amendment issued by the NRC on May 30, 1986, allows compliance with TS requirements for establishing the integrity of all ASME Code Class 1, 2, and 3 components, and is retained by this amendment.

The staff has reviewed the licensee's proposed modifications to the Waterford 3 TS. Since the proposed modifications are consistent with the staff's position in the generic letter and justified in the regulatory analysis referred to above, the staff finds the proposed modifications acceptable.

3.0 STATE CONSULTATION

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

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in 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 that the amendment involves no significant hazards consideration and there has been no public comment on such finding (56 FR 29274). 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: April 17, 1992