



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 152 TO

FACILITY OPERATING LICENSE NO. DPR-51

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NO. 1

DOCKET NO. 50-313

1.0 INTRODUCTION

By letter dated February 20, 1991, Entergy Operations, Inc. (the licensee) submitted a request for changes to the Arkansas Nuclear One, Unit No.1 (ANO-1), Technical Specifications (TSs). The requested changes would lower the pressure range at which the automatic isolation of the decay heat removal system (DHRS) from the reactor coolant system (RCS) is verified, and clarify the frequency of this surveillance from once every 18 months to once every refueling outage. The licensee's supplemental letter dated August 6, 1991, provided additional information regarding the appropriateness of the lower test pressure and the test methods, and did not change the proposed revisions to the TSs nor the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The licensee stated that the current TSs provide for surveillance testing of the DHRS isolation valve automatic closure and interlock function as follows, "shall also be tested during refueling shutdown prior to repressurization at a pressure greater than 300 but less than 420 psig." However, "during refueling shutdown" and "greater than 300 psig" are mutually exclusive. The staff notes that the RCS is depressurized during a refueling shutdown, and therefore agrees that the TS should be changed to correct this inconsistency.

The licensee also stated that the design pressure of the DHRS is 300 psig, and that an upper specified limit of 300 psig for the test is appropriate since this will protect the low pressure piping from an overpressure condition. The staff agrees that testing at the lower pressure is desirable from the standpoint that it will maximize the margin to overpressure.

Finally, the licensee stated that the DHRS motor operated isolation valves are not blowdown valves, and therefore are not required to isolate against line breaks. Therefore, their behavior is predictable and allows reliable extrapolation of test data from a reduced pressure. The licensee stated that calculations have been prepared and the valves are now set statically, to produce sufficient thrust as verified by diagnostic equipment for a pressure of 538 psid, which is well above the 400 psid upper automatic closure interlock setpoint. The staff agrees that based upon the information provided by the licensee, the valves will perform their intended function.

The staff also notes that ANO-1 is on an 18-month refueling outage schedule. The staff agrees that the change in the surveillance requirement wording from once every 18 months to once every refueling shutdown is editorial in nature.

Based on the above, the staff finds that the proposed amendment related to the verification of the automatic isolation of the DHRS is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Arkansas 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 13662). 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.

Principal Contributor: T. Alexion, PDIV-1

Date: September 26, 1991