



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 151 TO FACILITY OPERATING LICENSE NO. DPR-59
POWER AUTHORITY OF THE STATE OF NEW YORK
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
DOCKET NO. 50-333

INTRODUCTION

By letter dated May 31, 1989, the Power Authority of the State of New York (PASNY or the licensee), requested changes to the Technical Specifications (TS) for the James A. FitzPatrick Nuclear Power Plant. The changes would clarify the required actions which must be performed when the Containment Cooling Subsystem of the Residual Heat Removal (RHR) System is required to be operable but is in a degraded mode.

DESCRIPTION

The containment cooling mode of the RHR System removes heat energy from the primary containment in the event of a loss of coolant accident. The system consists of two independent subsystems, with each subsystem comprised of two RHR pumps, two RHR Service Water pumps, one heat exchanger, and associated piping and valves. Either subsystem is capable of performing the containment cooling function. The RHR Service Water System has sufficient redundancy so that the loss of one RHR Service Water pump does not significantly effect the design capability of the containment cooling function.

One set of changes proposed by the licensee would delete Specification 3.5.B.2 which states that "Continued reactor operation is permissible for 30 days with one spray loop inoperable and with reactor water temperature greater than 212°F" and modify Specifications 3.5.B.3 and 4.5.B.2 by deleting reference to the RHR pumps from the TS section dealing with the Containment Cooling System. The licensee has determined, and the staff agrees, that these specifications are unnecessary since any problem which renders a Containment Cooling Subsystem inoperable would also render the associated RHR loop inoperable, and since RHR TS Sections 3.5.A and 4.5.A already addresses operability of the RHR Systems with limitations (which allows equipment to be inoperable for 7 days) which are more restrictive than the limits specified in the Containment Cooling section (which allows 30 days). Also, the change would result in increased consistency with the balance of the TS related to engineered safeguard system operability requirements, which typically allows seven days of continued reactor operation with one train inoperable. Additionally, by removing the reference to one RHR pump from Specifications 3.5.B.3 and 4.5.B.2, the requirements are clarified to indicate that the 30-day inoperable time limit continues to apply to one RHR Service Water pump only. The staff agrees that these changes improve the

clarity of the TS without adversely affecting the limits or controls related to the operability of the Containment Cooling System, by eliminating confusing and contradictory requirements. The change to this specification involves no change in the substance of the TS requirements.

Another proposed change would remove reference to the Emergency Service Water (ESW) pump and system from Specifications 3.5.B.1 and 4.5.B.1. The ESW System is a standby system which will, among other functions, supply cooling water to the drywell air coolers and the drywell equipment drain sump cooler if the normal cooling water supply (the Reactor Building Closed Loop Cooling Water System) is lost. It functions independently of the Containment Cooling Subsystem and its operation is not necessary for the Containment Cooling System design objectives to be satisfied. For these reasons, as well as the fact that availability and requirements related to the ESW System are adequately addressed in TS Sections 3.11.D and 4.11.D, the licensee proposed removing the reference to the system from Specifications 3.5.B.1, 4.5.B.1 and the Bases discussion on page 127. The licensee has determined, and the staff agrees, that deletion of the ESW System from the Containment Cooling section of the TS will not change the controls or requirements related to the ESW System; but will result in removal of redundant specifications and overall improvement of the TS.

A proposed change to Specification 3.5.B.4 would make the specification applicable to the loss of two RHR Service Water pumps. The loss of two RHR Service Water pumps results in loss of one-half of the Containment Cooling mode, but does not render the RHR system itself inoperable. Since the original requirement addressed loss of one of the containment cooling subsystems only, the effect of the proposed change is to increase consistency by equating the loss of two RHR Service Water pumps with the loss of one-half of the Containment Cooling System. This change also conforms to the Standard Technical Specifications.

Similarly, the proposed change to Specification 4.5.B.3 would add the requirement that when two RHR Service Water pumps become inoperable, the remaining two pumps must be demonstrated to be operable immediately and daily thereafter. Since the existing specification already deals with loss of one containment cooling loop, the effect of this change would be to clarify the tests required by tying them to their effect on the Containment Cooling Subsystem.

Another proposed change to Specification 3.5.B.4 would delete the phrase "unless such subsystem is sooner made operable provided that during such 7 days all active components of the other containment cooling subsystem are operable." This deletion is appropriate since the same contingency is already contained in General Specification 3.0.B. The proposed change, therefore, removes redundancy and improves the quality of the TS.

Other changes would remove the words "redundant active" from Specification 4.5.B.2, "active" from Specification 3.5.B.3, and substitute "redundant

containment cooling subsystem" for "operable" in Specification 4.5.B.3. These changes do not change the requirements, but result in consistent use of terminology in existing specifications. They are non-technical in nature and improve the structure and readability of the specifications. The proposed changes to the Bases serve to more clearly explain the Containment Cooling Mode to agree with the proposed TS changes.

The staff has reviewed the information and descriptions provided by the licensee and determined that the proposed changes do not affect the conclusions reached in the Final Safety Analysis Report or Safety Evaluation Report. Based on this and the above analysis, the staff finds the proposed changes acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20, and changes to the surveillance requirements. 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 published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Sec 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 this amendment.

CONCLUSION

Based on the considerations discussed above, the staff concludes 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.

Dated: February 15, 1990

PRINCIPAL CONTRIBUTOR:

D. LaBarge