



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 144 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 June 14, 1989, the Power Authority of the State of New York (PASNY or the licensee) submitted a proposed amendment requesting changes to the Technical Specifications (TS) for the James A. FitzPatrick Nuclear Power Plant. The amendment would affect Table 3.2-6 by changing the number shown in the Minimum No. of Operable Instrument Channels Column from "2" to "1," changing the range specified for the indicator from "50-250" to "30-230," changing the range specified for the recorder from "50-350" to "30-230," and by changing the number shown in the No. of Channels Provided By Design Column from "4" to "2."

EVALUATION

The original suppression chamber water temperature monitoring system consisted of four instrument channels with a separate temperature element for each channel, and either an indicator in the control room or a recorder in the relay room. The ranges and design were based on original plant design considerations and engineering judgment. A review of this information in the FSAR and the TS Bases have not indicated a need to retain the original system.

Supplement 1 to NUREG-0737, "Requirements for Emergency Response Capability," dated December 17, 1982, required implementation of Regulatory Guide 1.97 so that data to assist control room operators in preventing and mitigating the consequences of reactor accidents is available.

One result of the evaluation conducted was a modification to the suppression chamber water temperature monitoring system. The modification resulted in two independent channels with a temperature range of 30-230°F and a two-pen recorder/indicator for each channel installed in the control room. To increase the bulk temperature measurement accuracy, sixteen temperature elements located around the suppression chamber supply input signals to each of the channels. One pen on each recorder shows the mathematical average of the sixteen temperature elements and the other records the temperature of the area of the torus selected using a selector switch. Altogether, therefore, there are four indications of torus water temperature.

The new system was designed in accordance with Table 1 of Regulatory Guide 1.97, Revision 2 and was included in a NUREG-0737 implementation status letter of November 30, 1984. The design was found to be acceptable in the Safety Evaluation and technical evaluation report which was transmitted to the licensee by letter dated November 5, 1985. Therefore, the proposed amendment does not impact the plant licensing basis since it incorporates the design which was determined to be acceptable.

In addition, the proposed TS change in Table 3.2-6, which would indicate that there are two channels provided by design and that the minimum number of operable instrument channels required is one channel, is consistent with three other instruments in the table (Drywell Pressure, Wide Range Reactor Water Level, and Fuel Zone Reactor Water Level) which were also determined to be acceptable as a result of the NUREG-0737 review.

Therefore, since the modified system results in a more accurate determination of the bulk suppression chamber water temperature, the design satisfies the Regulatory Guide requirements, does not adversely affect plant design, and results in an overall enhancement of the temperature monitoring capability, the staff has determined that the change to the TS incorporating this design is acceptable.

#### ENVIRONMENTAL CONSIDERATION

This amendment involves a change in 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. 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 this 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

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.

Dated: November 30, 1989

#### PRINCIPAL CONTRIBUTOR:

D. LaBarge