



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 167 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 11, 1990, 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: (1) delete the reference to Regulatory Guide 1.129 in Surveillance Requirement 4.9.E, "Station Batteries" and Surveillance Requirement 4.9.F, "LPCI MOV Independent Power Supplies;" (2) add the term "duty cycle" to Specifications 4.9.E.3 and 4.9.F.3 to indicate that the specifications apply to duty cycle tests; (3) add the term "capacity" to Specifications 4.9.E.4 and 4.9.F.4 to indicate that the specifications apply to capacity tests; and (4) change the Bases section to specify that these tests are conducted in accordance with the Institute of Electrical and Electronics (IEEE) 450-1987 Standard.

The proposed change will result in adoption of the current industry standard for performance of the operating cycle surveillance test and the 5-year interval surveillance test for the station battery system and for the Low Pressure Coolant Injection (LPCI) motor operated valve (MOV) independent power supply (IPS) battery system.

The proposed change is being made due to a commitment made in response to a recent Safety System Functional Inspection (SSFI) concern and documented in Inspection Report No. 50-333/89-80.

EVALUATION

The main station 125-volt battery system provides an independent source of direct current (DC) to the associated DC loads during normal conditions and for safe shutdown of the plant following abnormal operational transients and postulated accidents.

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The two LPCI MOV independent power supplies are designed to provide power to operate three MOVs in each of two LPCI loops and two MOVs in each of two reactor water recirculation loops during normal plant operation and during a loss of offsite power coincident with a design basis Loss-of-Coolant-Accident.

In accordance with plant procedures, the station batteries and the LPCI MOV IPS batteries are subjected to two major tests. A service test (also called a duty cycle test) is performed at 18 month intervals, corresponding to plant operating cycles. The test is performed in an "as-found" condition, without preconditioning, and demonstrates that the batteries are capable of performing their intended safety function.

In contrast, a performance discharge test (also called a capacity test) is performed at 5-year intervals and is designed to trend battery aging and enable determination of when the battery should be replaced. To provide accurate and consistent trend data, the latest industry standard specifies that the test be started from a consistent level of battery charge state, which is attained by performing an equalizing charge prior to performing the discharge test.

TS Sections 4.9.E.3, 4.9.E.4, 4.9.F.3, and 4.9.F.4 contain the testing requirements for these battery systems and states that Regulatory Guide (RG) 1.129 is used as the reference for the tests. This RG endorses IEEE Standard 450-1975 which, as pointed out in the SSFI, does not allow an equalizing charge to be given to the batteries prior to conducting capacity tests. However, the batteries were charged prior to the tests in accordance with plant procedures. A later version of the IEEE Standard for battery testing (IEEE 450-1987) specifies that an equalizing charge be completed more than 3 days and less than 7 days prior to conducting the capacity test. Thus, the procedures but not the TS had been changed to incorporate the new standard.

Even though the new standard has not been formally endorsed by the NRC, the staff has determined that the industry practice of conducting an equalizing charge prior to performing the capacity test is acceptable.

SUMMARY

The purpose of the proposed change is to incorporate the battery testing guidance supplied in the latest industry standard by removing reference to a RG which, in turn, referenced a standard which had been modified. Also, consistent testing terminology would be incorporated and reference to the latest standard would be incorporated. The TS would then be in agreement with the current plant procedures and practices.

The proposed changes do not change the type or frequency of testing, but do result in a more accurate determination of the condition of the batteries. Therefore, the basis for the conclusions reached in the Final Safety Analyses Report and the NRC's Safety Evaluation Report dated November 20, 1972, are not affected. For these reasons the proposed changes are acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change to 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 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 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.

Date: November 13, 1990

PRINCIPAL CONTRIBUTOR:

D. LaBarge