



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 85 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

1.0 Introduction

By letters dated November 18, 1981 and February 4, 1982, (References 1 and 2) the Power Authority of the State of New York (PASNY/the licensee) submitted a proposed Technical Specification revision which requested a reduction in the Control Rod Drive (CRD) scram surveillance frequency for the James A. FitzPatrick Nuclear Power Plant (FitzPatrick) from 15% every 8 weeks to 10% every 16 weeks.

2.0 Evaluation

Paragraph 4.3.2 of the FitzPatrick Technical Specifications requires the plant to perform a scram surveillance for its CRD at the frequency of 15% every 8 weeks. This frequency was established by Amendment No. 30 to the Technical Specifications issued on September 16, 1977. It was intended to protect the CRD mechanisms from possible accumulation of particles of corrosion products from carbon steel piping. However, a study performed by the General Electric Company (GE), forwarded as an attachment to Reference 2, has concluded that the presence of corrosion particles will not affect the reliability of the scram function of the CRD system. Using this conclusion as the basis, PASNY requested that the surveillance requirement be restored to the level prior to the September 16, 1977 amendment, i.e., 10% every 16 weeks.

The GE study evaluated the possible effects of corrosion particles generated from carbon steel piping of the flow stabilizer loop on the operation of the drive piston, the cooling water orifice, the ball check valve, and the possible effects of corrosion particles generated from the exhaust water header on the operation of the No. 121 directional control valves and associated filters. Results indicated the following:

1. The scram function of the CRD system will not be affected by the presence of corrosion particles. Should corrosion particles deposit at the seat of the ball valve, or in the directional valve filters, they will cause a change in flowrate, but the pressures and flow delivered to the drive during a rod scram are sufficient to compensate for this possibility.
2. Degradation of the CRD system caused by corrosion particles will be readily discovered during normal rod position change operations.
3. Frequent scram testing will not provide sufficient useful information about the condition of the CRD system, and may accelerate the system wear.

3.0 Summary

The staff agrees with these findings. The accumulation of corrosion particles will not prevent the CRD system from performing its normal scram function and minor system changes can be easily remedied by normal maintenance. The restoration of the CRD scram surveillance frequency to the level prior to the September 16, 1977 amendment is desirable and should be approved.

4.0 Environmental Consideration

This amendment involves changes in the 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 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.

5.0 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.

6.0 References

1. Letter from J. P. Bayne to T. Ippolito, "James A. FitzPatrick Nuclear Power Plant Proposed Changes to the Technical Specifications" dated November 18, 1981.
2. Letter from J. P. Bayne to D. Vassallo, "Decreased Control Rod Drive Scram Surveillance Frequency" dated February 4, 1982.

Principal Contributor: H. Shaw

Dated: October 11, 1984