



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

DEC 17 1984

SAFETY EVALUATION

AMENDMENT NO. 6 TO NPF-18

LA SALLE COUNTY STATION, UNIT 2

DOCKET NO. 50-374

Introduction

By letter dated September 25, 1984, the Commonwealth Edison Company (licensee) proposed an amendment that would change the La Salle County Station, Unit 2 Technical Specifications to include a previously approved reactor trip setting on low control rod drive (CRD) pump discharge water header pressure and to delete an associated surveillance requirement. The staff's initial evaluation of the CRD charging water header low pressure scram function was provided in Section 7.2.3.2, of Supplement No. 7 to the Safety Evaluation Report. In addition, an Amendment No. 3 dated July 24, 1984, was issued to La Salle Unit 2 license approving the Technical Specification changes for incorporating this CRD charging water header low pressure scram modification satisfying License Condition 2.C.(7). However on September 21, 1984, Amendment No. 4 was issued vacating Amendment No. 3 and reinstating License Condition 2.C.(7) because spurious scrams were occurring as a result of this low scram modification. The changes requested by the licensee in the September 25th letter as compared to those in Amendment No. 3 are new (lower) trip setpoints and allowable values achieved by reducing the calibrated range of the CRD charging water header pressure sensors.

Evaluation

The licensee has proposed to change the CRD charging water header low pressure scram trip setpoint from those previously approved of 1267 psig to 1157 psig, and the associated allowable value from 1185 psig to 1134 psig. To arrive at the new setpoints, the calibrated range of the pressure sensors has been reduced from 0-2500 psig to 500-1500 psig, thus reducing the uncertainties involved in calculating the setpoint values (i.e., instrument accuracy is increased). The licensee has performed an analysis which demonstrates that accumulator pressure will be sufficient to accomplish a scram for at least three minutes after CRD charging water pressure has decreased below the low pressure scram setpoint allowable value of 1134 psig. A reactor scram will occur ten seconds after charging water header pressure reaches the trip setpoint value of 1157 psig. The CRD low charging pressure scram logic includes a ten second time delay to avoid reactor scrams due to spurious pressure fluctuations. The licensee has not deleted or changed any Technical Specification operability requirements or limiting conditions for operation for the scram accumulators. Based on the above, the staff concludes that the proposed setpoint changes are acceptable.

The licensee has proposed to delete surveillance requirement 4.1.3.5.b.2 to measure and record the time that each individual accumulator check valve maintains the associated accumulator pressure above the low pressure

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alarm setpoint with no control rod drive pump operating. This test (check valve leakage rate) was required to be performed once per 18 months. With implementation of the CRD charging water header low pressure scram function, a reactor scram will occur before CRD charging pressure, and hence accumulator pressure, decreases (for whatever reason, including check valve leakage) to the point where control rod insertion is no longer possible. Since sufficient pressure will be available to accomplish a scram, for all modes of operation, the staff concludes that deletion of the above surveillance requirement for the accumulator check valves is acceptable.

As a result of this modification, new instrumentation have been incorporated into the design and the licensee updated Tables 3.3.1-1 (Reactor Protection System Instrumentation) and Table 4.3.1.1-1 (Reactor Protection System Instrumentation Surveillance Requirements) of the La Salle Unit 2 Technical Specifications to reflect this change. The staff reviewed the proposed changes to the Tables. Table 3.3.1-1 establishes the requirements for the minimum number of operable channels (including the applicable modes of operation) and the associated limiting conditions for operation when the minimum operability requirements are not met. All four charging water header pressure channels and the delay timer are required to be operable at startup and refueling with any control rod withdrawn. Table 4.3.1.1-1 requires that a channel functional test be performed monthly for each pressure channel and the delay timer, and that these instruments be calibrated at each refueling outage. The proposed Technical Specification operability requirements limiting conditions for operations, and surveillance requirements for the CRD charging water header low pressure scram instrumentation are consistent with other protection system instrumentation at La Salle Unit 2 and the BWR-5 Standard Technical Specifications, and, therefore, are acceptable. The licensee has stated that the CRD charging water header low pressure alarm (which is independent of the trip function) will be tested at each refueling outage as part of calibration procedures LISRD-204 and 404. Response time testing is not required for these instruments since credit is not taken for the CRD charging water header low pressure scram function in any of the Chapter 15 analyses of the Final Safety Analysis Report. Based on the above, the NRC staff concludes that the proposed changes to the La Salle Unit 2 Technical Specifications concerning implementation of the CRD charging water header low pressure scram function are acceptable, and accordingly the licensee has satisfied the License Condition 2.C.(7).

Environmental Consideration

This amendment involves a change in 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 Section 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

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (49 FR 42810) on October 24, 1984. No public comments were received.

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: December 17, 1984