



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 21 TO FACILITY OPERATING LICENSE NO. NPF-62

CLINTON POWER STATION, UNIT NO. 1

ILLINOIS POWER COMPANY, ET AL.

DOCKET NO. 50-461

1.0 INTRODUCTION

By letter dated December 21, 1988 the Illinois Power Company (IP), et al. (the licensees) requested an amendment to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit 1. The proposed amendment would revise Technical Specification Section 3/4.6.6 and BASES Section 3/4.6.6 to provide appropriate values for the secondary containment drawdown test. This amendment request was provided to comply with a commitment by the licensee to analyze the drawdown time under actual or normal test conditions and to provide an appropriate value for the drawdown test criteria at least 60 days prior to the initiation of the second fuel cycle.

2.0 EVALUATION

In Supplement 7 of the Clinton Power Station Safety Evaluation Report (SSER 7), a discussion is devoted to the secondary containment drawdown time and the results of IP's secondary containment drawdown analysis for the design basis accident (DBA-LOCA). As noted in Section 6.2.2 of SSER 7, IP originally proposed a drawdown value of 168 seconds as the Technical Specification limit based on an analysis discussed in Final Safety Analysis Report (FSAR) Amendment 36. The NRC position, as noted in the SSER, was that 168 seconds may not be an appropriate value as an acceptance criterion for surveillance testing and should not be considered the final value for the Technical Specification limit. That is, since "the drawdown time was derived with consideration of conditions following the onset of a LOCA which would mechanistically increase the drawdown time (e.g., by heat addition to the secondary containment atmosphere), it would be nonconservative to apply the 168-second value to the normal testing conditions." IP, therefore, committed to analyze the drawdown time period under actual or normal test conditions and to provide an appropriate value for the drawdown time at least 60 days before the second fuel cycle begins.

In response to that commitment, the licensee has provided a revision to the secondary containment drawdown time limit specified in the drawdown test requirements of Technical Specification 4.6.6.1.c.1. The limit provided will replace the current value of 168 seconds with a graph which specifies the drawdown time limit as a function of the system flow rate observed during the drawdown when a differential pressure of 0.25 inches water gauge is attained.

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The acceptance criteria provided in the graph for the drawdown test is based on a computer model, verified by the actual performance of drawdown tests, in which the drawdown time determined for accident conditions is adjusted to account for performance of the test during normal plant conditions. The acceptance criteria is based on conditions corresponding to power operation, and wind speeds less than or equal to 10 mph. The acceptance criteria for plant conditions other than those assumed will be adjusted as necessary to reflect the conditions which exist during the performance of the surveillance test.

The tests conducted to validate the model produced results of a 35 second drawdown time when the plant was operating and a 20 second drawdown time with the plant shutdown. The 35 second time was previously determined to be acceptable for non-accident conditions in SSER 7. The procedure for adjustment of the criteria based on plant and environmental conditions was reviewed by the staff and found to be reasonable. The licensee has committed that the measurement of the secondary containment differential pressure for this surveillance will be based on control room indications and the determination of the drawdown time will be based on when the last indicator reaches the required value thereby assuring a representative measurement.

3.0 ENVIRONMENTAL CONSIDERATION

We have 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.

This amendment involves a change in surveillance requirements for the facility. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, 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.

4.0 CONCLUSION

The proposed changes to Technical Specification Section 3/4.6.6 and BASES Section 3/4.6.6, in order to provide revised acceptance criteria for the secondary containment drawdown test, is acceptable since it provides criteria for acceptability that reflect the actual condition under which the tests will be conducted. The adjustment of the acceptance criteria to account for the test conditions will help assure the system would perform adequately under accident conditions.

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.

Principal Contributor: John B. Hickman, NRR/PDIII-2

Dated: April 10, 1989