



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 191 TO FACILITY OPERATING LICENSE NO. DPR-40

OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN STATION, UNIT NO. 1

DOCKET NO. 50-285

1.0 INTRODUCTION

By application dated September 28, 1998, as supplemented by letter dated March 12, 1999, Omaha Public Power District (OPPD) requested resolution of an Unreviewed Safety Question (USQ) and amendment to Facility Operating License No. DPR-40 for the Fort Calhoun Station, Unit No. 1. The requested changes would resolve a USQ that results from OPPD's proposal to install an override capability to manually reopen the reactor coolant system (RCS) letdown flow isolation valves following a containment isolation actuation signal (CIAS). The purpose of this system modification is to add operational flexibility to reduce excessive RCS inventory during an uncontrolled heat extraction (UHE) event such as a main steam line break (MSLB) with the safety injection system injecting water into the RCS.

The March 12, 1999, supplemental letter provided additional clarifying information, did not expand the scope of the application as originally noticed, and did not change the initial no significant hazards consideration determination published in the Federal Register on November 18, 1998 (63 FR 64119).

2.0 EVALUATION

In its letter dated September 28, 1998, the licensee indicated that it is desirable to have a CIAS override capability for the RCS letdown isolation valves to improve operational flexibility in response to a UHE event for maintaining effective pressure control in RCS. The current plant design permits reinstatement of letdown after reset of engineered safety features (ESF) relays. This can be achieved after the containment pressure has been reduced below the containment pressure high signal (CPHS). The proposed modification will permit override of the CIAS to the letdown isolation valves without having to meet the containment pressure criterion.

The licensee has evaluated the significance of permitting override of CIAS to the letdown isolation valves while the containment pressure is above the CPHS reset criterion during a UHE. The design basis of the CIAS ensures that the containment isolation function is maintained in the event that either the fuel cladding or the RCS pressure boundary has been

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damaged. In a UHE, both the fuel cladding and RCS pressure boundary are expected to remain intact. Therefore, allowing the CIAS to the letdown valves to be overridden during a UHE will not defeat the purpose of the containment isolation requirement. The staff has reviewed the licensee's evaluation and agrees with its conclusions.

Since the RCS letdown system is not designed to safety grade requirements, it should not be given credit in any safety analysis for accident mitigation. In response to the staff's request, the licensee in its proposed changes to Section 9.2.5 of Updated Safety Analysis Report, added a statement to clarify that the use of the letdown system is not credited in the Section 14 safety analyses.

The staff has concluded that the licensee's proposed unreviewed safety question amendment regarding the CIAS override is acceptable. The staff considers this USQ resolved.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Nebraska State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC 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 the amendment involves no significant hazards consideration and there has been no public comment on such finding (63 FR 64119). Accordingly, the 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 the amendment.

5.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: July 22, 1999