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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 171 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 May 8, 1995, as supplemented by letter dated July 11, 1995, Omaha Public Power District (OPPD) requested changes to the Technical Specifications (Appendix A to Facility Operating License No. DPR-40) for the Fort Calhoun Station, Unit No. 1. The requested changes modify Sections 2.3, 3.1, 3.2, 3.3 and 3.6 of the Technical Specifications in accordance with the guidance of Generic Letter (GL) 93-05, "Line Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation," dated September 27, 1993. The changes are consistent with Station operating experience and NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," dated December 1992. In addition, a change is made to TS Section 3.1 in accordance with the Commission's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors. Also, changes are made to the TS sections identified above for clarity and to correct administrative errors.

The July 11, 1995, supplemented letter provided additional clarifying information and did not change the original no significant hazards consideration determination published in the Federal Register on June 6, 1995 (60 FR 29883).

2.0 EVALUATION

The amendment modifies Sections 2.3, 3.1, 3.2, 3.3 and 3.6 of the Technical Specifications, as discussed in detail below, in accordance with the guidance of Generic Letter (GL) 93-05, "Line Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation," dated September 27, 1993. GL 93-05 was issued as a result of a comprehensive examination performed by the staff of surveillance requirements in TS that required testing during power operation. This effort was a part of the NRC Technical Specifications Improvement Program, with the results reported in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," dated December 1992. In performing this study, the staff found that, while the majority of the testing at power is important, safety can be

improved, equipment degradation can be decreased, and an unnecessary burden on personnel resources can be eliminated by reducing the amount of testing that the TS require during operation. The changes discussed below are consistent with Station operating experience and NUREG-1366. In addition, a change is made to TS Section 3.1 in accordance with the Commission's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors. Also, changes are made to the TS sections identified above for clarity and to correct administrative errors. The following is a discussion and evaluation of each change.

2.1 Changes Based on the Guidance in GL 93-05

TS Section 3.2, Table 3-5, Item 2, Control Rod Movement Test

The amendment changes the surveillance interval for Item 2 in Table 3-5 of TS Section 3.2 (partial movement of all control element assemblies) from every two weeks to quarterly. The change is in accordance with the recommendations contained in Item 4.2 of Generic Letter 93-05. Through review by OPPD of the results of previously performed surveillance tests and interviews with personnel familiar with the test, no surveillance test failures were identified. Performance of the test has resulted in reactor trips, dropped rods and unnecessary challenges to safety systems at other plants. Based on the above, the change is acceptable.

TS Section 3.1, Table 3-3, Items 3 and 5, Radiation Monitors

The amendment changes the surveillance interval for Items 3b (area and post-accident radiation monitors) and 5b (primary to secondary leak-rate detection radiation monitors) in Table 3-3 of TS Section 3.1 from monthly to quarterly. The changes are in accordance with the recommendations contained in Item 5.14 of Generic Letter 93-05. Of the 30 radiation monitors affected by this change, 28 are new, having been installed within the last two operating cycles. The value of the monthly testing for the new monitors is greatly reduced, since the new radiation monitors include self checking circuitry that will provide notification if a failure occurs. In addition, Station operating experience has shown that the two monitors that were not replaced are reliable. In cases where new components interface with older components, the older components have a history of reliable operation. Based on the above, the change is acceptable.

TS Section 3.3(2)a, Reactor Coolant System Isolation Valves

The amendment extends the time that the plant can be in cold shutdown from 72 hours to 7 days before the surveillance to leak test the high pressure safety injection and low pressure safety injection loop isolation valves must be performed if testing has not been accomplished in the preceding nine months. The change is in accordance with the recommendations in Item 6.1 of

Generic Letter 93-05. A review by OPPD of previous surveillance tests and interviews with personnel familiar with the test did not identify any prior surveillance test failures. Based on the above, the change is acceptable.

TS Section 2.3(2)g, Safety Injection Tank Pressure and Level Instrumentation

The amendment extends the time limit for inoperability of safety injection tank level and pressure instrumentation from 1 hour to 72 hours. The change is in accordance with the recommendations in Item 7.4 of Generic Letter 93-05. As stated in NUREG-1366, "While technically inoperable, the accumulator [SIT] would be available to fulfill its safety function during this time, and thus, this change would have a negligible increase on risk." A 1-hour allowed outage time is insufficient time to initiate repairs. A review by OPPD of historical data found that SIT water level stays relatively constant while pressure decreases slightly over time. It is unlikely that SIT pressure would decrease below the limit (240 psig) of Specification 2.3(1)c during the proposed 72-hour LCO. SIT pressure is normally maintained around 255 psig (Section 6.2.3.5 of the USAR). Based on the above, the change is acceptable.

TS Section 3.1, Table 3-2, Item 14a, Safety Injection Tank Pressure and Level Instrumentation Check

The amendment revises Item 14a of Table 3-2 of TS Section 3.1 to verify that SIT level and pressure are within limits (vs. verifying indications are between independent high and low alarms), and suspend the surveillance on the affected SIT while the instrumentation is being repaired. The change is in accordance with the recommendations in Item 7.4 of GL 93-05, which recognizes that SIT instrumentation operability is not directly related to the capability of a SIT to perform its safety function. In addition, the SIT level and pressure are expected to stay within the limits of Specification 2.3(1)c during the 72-hour LCO (as discussed above). Based on the above, the change is acceptable.

TS Section 3.6(2)b and Basis Section 3.6, Containment Spray System Nozzle Surveillance

The amendment revises TS Section 3.6(2)b and the associated Section 3.6 of the Bases to extend the surveillance of the containment spray system nozzles from every 5 years to every 10 years. The change is in accordance with the recommendations in Item 8.1 of GL 93-05. OPPD interviewed Station personnel familiar with this surveillance test and previous surveillance test results were reviewed. No prior nozzle clogging was identified. The problem that caused several containment spray nozzles to become clogged at San Onofre Unit 1 is not a concern at Fort Calhoun Station, since the Station containment spray system piping and valves are constructed of stainless steel (Table 6.3-2 of the USAR).

2.2 Change Based on the Commission's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors

TS Section 3.1, Table 3-3, Item 4, Emergency Plan Radiation Instruments

The amendment deletes Item 4 from Table 3-3 of TS Section 3.1, thus removing the surveillance testing of the emergency plan radiation instruments from TS. The instruments are portable, and are stored in specified locations for use by emergency response personnel in the event of an accident. The instruments may be used to survey onsite/offsite areas for radioactivity or to facilitate the decontamination of personnel following an accident. The instruments do not have a limiting condition for operation (LCO) action statement associated with them. As a result, there is not a basis for a surveillance requirement on the instruments to be included in TS. In addition, the surveillance requirement does not meet one of the four criteria of the Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, dated July 22, 1993, (58 Fed. Reg. 39132) for inclusion in TS.[1] Specifically, the emergency plan radiation instruments are not (1) installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary, (2) a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier, (3) a structure, system, or component that is part of the primary success path which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier, and are not (4) a structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to public health and safety. By letter dated July 11, 1995, OPPD stated that the operational checks for the instruments will be controlled under the Preventative Maintenance Order Program, and the calibration and calibration frequency will be controlled by Radiation Protection Department procedures. Changes to the procedures in the Preventive Maintenance Order Program and to the Radiation Protection Department procedures are controlled by 10 CFR 50.59. Based on the above, the change is acceptable.

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[1] The Commission recently adopted amendments to 10 CFR 50.36, pursuant to which the rule was revised to codify and incorporate these criteria. See Final Rule, "Technical Specifications," 60 Fed. Reg. 36953 (July 19, 1995). The Commission indicated that reactor core isolation cooling, isolation condenser, residual heat removal, standby liquid control, and recirculation pump are to be included in the TS under Criterion 4, although it recognized that other structures, systems and components could also meet this criterion. 60 Fed. Reg. at 36956.

2.3 Administrative Changes

TS Section 3.1, Table 3-3, Items 3a/b and 5a/b, Radiation Monitors

The amendment changes the descriptive wording in TS Section 3.1, Table 3-3, Items 3a/b (area and post-accident radiation monitors) and 5a/b (primary to secondary leak-rate detection radiation monitors) with defined terms. Specifically, the surveillance method for Items 3a and 5a is changed to "CHANNEL CHECK" from "Normal readings observed and internal test signals used to verify instrument operation.", and for Items 3b and 5b is changed to "CHANNEL FUNCTIONAL TEST" from "Detector exposed to remote operated radiation check source or test signal." Replacing descriptive words with terms defined in the Technical Specifications ensures consistency and that the surveillance accomplishes its purpose. Based on the above, the changes are acceptable.

TS Section 2.3(2)g, Safety Injection Tank Pressure and Level Instrumentation

The amendment revises the wording in TS Section 2.3(2)g from "Level and pressure instrumentation" to "Level and/or pressure instrumentation" to more accurately define when the technical specification applies. The clarification does not alter the intent of the technical specification, and is therefore, acceptable.

Changes to Correct Administrative Errors

The amendment adds Amendment 41 to the list of amendments revising TS page 3-12a. The change corrects an administrative error, and is therefore, acceptable.

The amendment removes Amendment 14 from TS page 3-13 and adds Amendment 8 to the list of amendments. TS Change 14 revised page 3-13, but this change was issued under Amendment 8. The change corrects an administrative error, and is therefore, acceptable.

The amendment removes reference to Amendment 99 from TS page 3-22 and revised "Order 4/20/87" to "Order 4/20/81". Both changes are correcting administrative errors. Therefore, the changes are acceptable.

The amendment revised TS page 3-54 to add "Change 7" to the list of items revising page 3-54. Prior to the issuance of TS amendments, the TS were revised by means of TS Changes. Change 7 was issued February 23, 1974. The change corrects an administrative error, and is therefore, acceptable.

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 and changes surveillance requirements. 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 (60 FR 29883). 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.

Principal Contributor: K. Thomas

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