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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 82 TO FACILITY OPERATING LICENSE NO. DPR-40

OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION, UNIT NO. 1

DOCKET NO. 50-285

Introduction:

By application dated March 9, 1984, the Omaha Public Power District (the licensee) requested an amendment to the Technical Specifications (TS) for the Fort Calhoun Station, Unit No. 1. The amendment request was in response to the Commission's Generic Letter No. 83-37 entitled, "NUREG-0737 Technical Specifications."

The Generic Letter, which was issued on November 1, 1983, advised licensees to submit new TS for the following NUREG-0737 items:

1. Reactor Coolant System Vents (II.B.1)
2. Post-Accident Sampling (II.B.3)
3. Long Term Auxiliary Feedwater System Evaluation (II.E.1.1)
4. Noble Gas Effluent Monitors (II.F.1.1)
5. Sampling and Analysis of Plant Effluents (II.F.1.2)
6. Containment High-Range Radiation Monitor (II.F.1.3)
7. Containment Pressure Monitor (II.F.1.4)
8. Containment Water Level Monitor (II.F.1.5)
9. Containment Hydrogen Monitor (II.F.1.6)
10. Instrumentation for Detection of Inadequate Core Cooling (II.F.2)
11. Control Room Habitability (III.D.3.4)

The Generic Letter contained TS which would be acceptable to the staff.

The licensee proposed TS for the above items except Post-Accident Sampling, Long Term Auxiliary Feedwater System Evaluation, Instrumentation for Detection of Inadequate Core Cooling, and Control Room Habitability Requirements. The licensee advised the staff that proposed TS for these items will be the subject of other amendment requests. As such, the staff will review these other items separately when submitted. Our evaluations of the proposed TS for Containment Pressure Monitor (II.F.1.4), Containment Water Level Monitor (II.F.1.5), and Containment Hydrogen Monitor (II.F.1.6) follows. Our evaluation of the other licensee proposed TSs were the subject of other evaluations and licensing actions.

Evaluation - Containment Hydrogen Monitors (II.F.1.6)

The licensee proposes to add operability requirements in Table 2-9 entitled "Post-Accident Monitoring Operating Limits". Regarding the minimum operable channels, the licensee proposes that two channels will be operable during applicable modes. This is consistent with the staff guidance and is, therefore, acceptable. If the minimum operable channels are not met during the applicable modes, the licensee proposes corrective actions which are consistent with the corrective actions contained in the staff guidance with the following exception. The licensee proposes to bring the plant to hot shutdown within 12 hours versus bringing the plant to hot standby within 6 hours. We believe that the licensee's proposal is more conservative. Therefore, the licensee's proposed corrective actions are acceptable.

The licensee proposed to amend Table 3-3 of the present TS to include surveillance requirements for the hydrogen monitors. The licensee states that the monitors are maintained in a standby condition and alarms would alert the operators if a channel failed while in the standby condition. The licensee also states that, in order to perform a channel check, both trains must be started, containment isolation valves opened, and other necessary equipment actuated (e.g., catalyst gas applied to the system). The licensee believes that the small amount of useful information to be gained from such a check does not warrant daily operation of the system as recommended in the staff guidance. Therefore, the licensee proposes a monthly channel check versus the staff's guidance interval of once per twelve hours. Because of the design of the system, including the alarms when failure occurs and considering what the licensee must do to perform a channel check, the staff agrees that a monthly channel check is adequate and is therefore, acceptable.

Regarding testing and calibration, the staff guidance recommends an analog channel operational test at least once per 31 days and a channel calibration on a staggered basis at least once per 92 days.

The licensee proposes to test each monitor on a quarterly basis by checking flow rates and calibrating span/zero using sample gas with known hydrogen content. In addition, the licensee proposes to calibrate each channel on an 18 month basis using known signals applied to the sensors.

We have reviewed licensee's proposed surveillance requirements for the hydrogen monitor, and conclude that the licensee's proposed surveillance requirements meet the intent of the guidance contained in Generic Letter 83-37 and are, therefore, acceptable.

Evaluation - Containment Wide Range Pressure (II.F.1.4)

The licensee proposes to add operability requirements in Table 2-9 entitled "Post-Accident Monitoring Operating Limits." Regarding the minimum operable channels, the licensee proposes that two channels will be operable during applicable modes. This is consistent with the staff guidance and is,

therefore, acceptable. If the minimum operable channels are not met during the applicable modes, the licensee proposes the same corrective actions as used for the hydrogen monitors. This satisfies the intent of the staff guidance contained in Generic Letter 83-37. We believe the licensee's proposed corrective actions are adequate. On this basis, the licensee's proposed corrective actions for the containment pressure monitors are acceptable.

The licensee proposes to amend Table 3-3 of the present TS to include surveillance requirements for the pressure monitors. The proposed surveillance requirements are the same as those contained in the staff guidance. On this basis, the proposed surveillance requirements for the pressure monitors are acceptable.

Evaluation - Containment Water Level-Wide Range (II.F.1.5)

The licensee proposes to add operability requirements in Table 2-9 entitled "Post-Accident Monitoring Operating Limits". Regarding the minimum operable channels, the licensee proposes that two channels will be operable during applicable modes. This is consistent with the staff guidance and is, therefore, acceptable. If the minimum operable channels are not met during the applicable modes, the licensee proposes the same corrective actions as used for the hydrogen monitors. This satisfies the intent of the staff guidance contained in Generic Letter 83-37. We believe that the licensee's proposed corrective actions are adequate. On this basis, the licensee's proposed corrective actions for the containment water level-wide range monitors are acceptable.

The licensee proposes to amend Table 3-3 of the present TS to include surveillance requirements for the water level-wide range monitors. The proposed surveillance requirements are the same as those contained in the staff guidance. On this basis, the proposed surveillance requirements for the water level-wide range monitors are acceptable.

Evaluation - Containment Water Level-Narrow Range (II.F.1.5)

The licensee proposes to add operability requirements in Table 2-9 entitled "Post-Accident Monitoring Operating Limits." Regarding the minimum operable channels, the licensee proposes one and this is what the staff guidance recommends. This is, therefore, acceptable. If the minimum operable channels are not met during the applicable modes, the licensee proposes to continue operation until the next cold shutdown. This is different than the staff guidance which states that operation may continue up to 30 days with less than minimum channels operable. The licensee justifies his proposal as follows. The licensee has two separate channels. The licensee proposes one minimum operable channel which is consistent with the staff guidance. The licensee states that the narrow range containment water level monitor is primarily for containment sump pump control and as an aid to help detect abnormal leakage inside containment. The licensee further states that plant operation should not be contingent upon operability of this monitoring system

to the point where a special shutdown would be required to repair the system, as it offers no useful post-accident information which could not be readily obtained by alternative methods. We have considered the licensee's proposal and basis for it. This instrumentation is classified as Category 2 in Regulatory Guide 1.97. In the Fort Calhoun case, it is not critical to have this indication. We agree with the licensee that a special shutdown for repairs should not be required. On this basis, we find the licensee's proposed corrective action to be acceptable.

The licensee proposes to amend Table 3-3 of the present TS to include surveillance requirements for the water level-narrow range monitors. The proposed surveillance requirements are the same as those contained in the staff guidance. On this basis, the proposed surveillance requirements for the containment sump water-level narrow range monitors are acceptable.

Environmental Consideration

This amendment involves a change in the installation or use of a facility component located within the restricted area. The staff has determined that the amendment involves no significant increase in the amounts 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.

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.

Date: August 2, 1984

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