



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 83 TO FACILITY OPERATING LICENSE NO. DPR-40
OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN STATION, UNIT NO. 1
DOCKET NO. 50-285

Introduction:

By letter dated October 3, 1983 the Omaha Public Power District (the licensee) requested a change to the Fort Calhoun Station, Unit No. 1 (FCS-1) reactor vessel materials surveillance capsule withdrawal schedule, which is contained in Table 3-7 of the FCS-1 Technical Specifications. The staff evaluated the licensee's submittal and indicated that the withdrawal schedule did not meet the withdrawal schedule requirements of Appendix H, 10 CFR 50 and must be revised. By letter dated June 22, 1984 the licensee submitted proposed Technical Specifications, which revised the reactor vessel materials surveillance capsule withdrawal schedule.

Evaluation:

According to Section II.B.1 of Appendix H, 10 CFR 50, the proposed withdrawal schedule must meet the requirements of ASTM E 185-82. The intent of these requirements is to provide material surveillance data throughout the life of the vessel. As a result of new core loading designs the anticipated end-of-life (EOL) peak neutron fluence ($E > 1\text{MeV}$) at the inside surface of the FCS-1 reactor vessel is 3.3×10^{19} n/cm². The removal sequence proposed by the licensee in its letter dated June 22, 1984 will provide for withdrawal of five surveillance capsules, in which the range of neutron irradiation to be received by the capsule will be from 1.6 to 3.6×10^{19} n/cm². This range of irradiation should be sufficient to characterize the effect of neutron irradiation on the FCS-1 reactor vessel throughout its design life, since it exceeds the EOL peak neutron fluence at the FCS-1 reactor vessel inside surface. Hence, the proposed withdrawal schedule meets the requirements of Appendix H, 10 CFR 50 and may be incorporated into the FCS-1 Technical Specifications.

Environmental Consideration

The 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

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finding. Accordingly, the change 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: September 7, 1984

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