



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20545

OMAHA PUBLIC POWER DISTRICT

DOCKET NO. 50-285

FORT CALHOUN STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 62
License No. DPR-40

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Omaha Public Power District (the licensee) dated March 27, 1981, as supplemented August 3, 1981 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

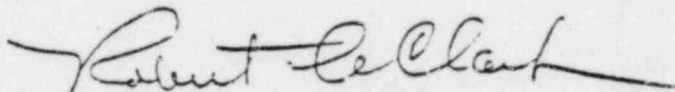
2. Accordingly, Facility Operating License No. DPR-40 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B. of Facility Operating License No. DPR-40 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 62, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 22, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 62

FACILITY OPERATING LICENSE NO. DPR-40

DOCKET NO. 50-285

Revise Appendix "A" Technical Specifications as indicated below. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

Remove Pages

2-50
2-51

Insert Pages

2-50
2-51

2.0 LIMITING CONDITIONS FOR OPERATION
2.10 Reactor Core (Continued)

2.10.2 Reactivity Control Systems and Core Physics Parameters Limits

Applicability

Applies to operation of control element assemblies and monitoring of selected core parameters whenever the reactor is in cold or hot shutdown, hot standby, or power operation conditions.

Objective

To ensure (1) adequate shutdown margin following a reactor trip, (2) the MTC is within the limits of the safety analysis, and (3) control element assembly operation is within the limits of the setpoint and safety analysis.

Specification

(1) Shutdown Margin with $T_{cold} > 210^{\circ}\text{F}$

Whenever the reactor is in hot shutdown, hot standby or power operation conditions, the shutdown margin shall be $> 3.0\% \Delta k/k$. With the shutdown margin $< 3.0\% \Delta k/k$, initiate and continue boration until the required shutdown margin is achieved.

(2) Shutdown Margin with $T_{cold} \leq 210^{\circ}\text{F}$

Whenever the reactor is in cold shutdown conditions, the shutdown margin shall be $> 3.0\% \Delta k/k$. With the shutdown margin $< 3.0\% \Delta k/k$, initiate and continue boration until the required shutdown margin is achieved.

(3) Moderator Temperature Coefficient

The moderator temperature coefficient (MTC) shall be:

- a. Less positive than $+0.2 \times 10^{-4} \Delta\rho/^{\circ}\text{F}$ including uncertainties for power levels at or above 80% of rated power.
- b. Less positive than $+0.5 \times 10^{-4} \Delta\rho/^{\circ}\text{F}$ including uncertainties for power levels below 80% of rated power.
- c. More positive than $-2.3 \times 10^{-4} \Delta\rho/^{\circ}\text{F}$ including uncertainties at rated power.

With the moderator temperature coefficient confirmed outside any one of the above limits, change reactivity control parameters to bring the extrapolated MTC value within the above limits within 3 hours or be in at least hot shutdown within 6 hours.

2.0 LIMITING CONDITIONS FOR OPERATION
2.10 Reactor Core (Continued)
2.10.2 Reactivity Control Systems and Core Physics Parameters Limits
(Continued)

the shutdown margin requirement is based upon this limiting condition and is consistent with FSAR safety analysis assumptions. With $T_{\text{cold}} \leq 210^{\circ}\text{F}$, the reactivity transients resulting from any postulated accident are minimal and a 3.0% $\Delta k/k$ shutdown margin provides adequate protection.

Control Element Assemblies

The specifications of this section ensure that (1) acceptable power distribution limits are maintained, (2) the minimum shutdown margin is maintained, and (3) the potential effects of CEA misalignments are limited to acceptable levels.

The statements which permit limited variations from the basic requirements are accompanied by additional restrictions which ensure that the original design criteria are met.

The specifications applicable to one or more CEA's that are determined to be untrippable or stuck, and to one or more misaligned CEA's that cannot be restored to within 12 inches of any other CEA in their group, require a prompt shutdown of the reactor since any of these conditions may be indicative of a possible loss of mechanical functional capability of the CEA system and in the event of any untrippable CEA, the loss of shutdown margin.

For small misalignments (<18 inches absolute) of the CEA's, there is 1) a small degradation in the peaking factors relative to those assumed in generating LCO's and LSSS setpoints for DNER and linear heat rate, 2) a small effect on the time dependent long term power distributions relative to those used in generating LCO's and LSSS setpoints for DNER and linear heat rate, 3) a small effect on the available shutdown margin, and 4) a small effect on the ejected CEA worth used in the safety analysis. Therefore, the action statement associated with the small misalignment of a CEA permits a one hour time interval during which attempts may be made to restore the CEA to within its alignment requirements prior to initiating a reduction in power. The one hour time is sufficient to 1) identify causes of a misaligned CEA, 2) take appropriate corrective action to realign the CEA's, and 3) minimize the effects of xenon redistribution.

Overpower margin is provided to protect the core in the event of a large misalignment (>18 inches) of a CEA. However, this misalignment would cause distortion of the core power distribution. The reactor protective system would not detect the degradation in radial peaking factors and since variations in other systems parameters (e.g., pressure and coolant temperature) may not be sufficient