



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-295

ZION NUCLEAR POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.89
License No. DPR-39

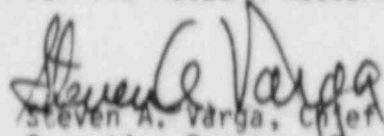
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Commonwealth Edison Company (the licensee) dated October 19, 1984, augmented by letters dated December 20, 1984, February 14, 1985, March 8, 1985 and April 19, 1985, complies with the standards 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, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-39 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 89, 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


Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 24, 1985



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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-304

ZION NUCLEAR POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 79
License No. DPR-48

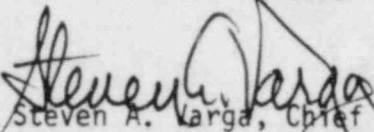
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 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - 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, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-48 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 79, 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


Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 24, 1985

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 89 FACILITY OPERATING LICENSE NO. DPR-39

AMENDMENT NO. 79 FACILITY OPERATING LICENSE NO. DPR-48

DOCKET NOS. 50-295 AND 50-304

Revise Appendix A as follows:

Remove Pages

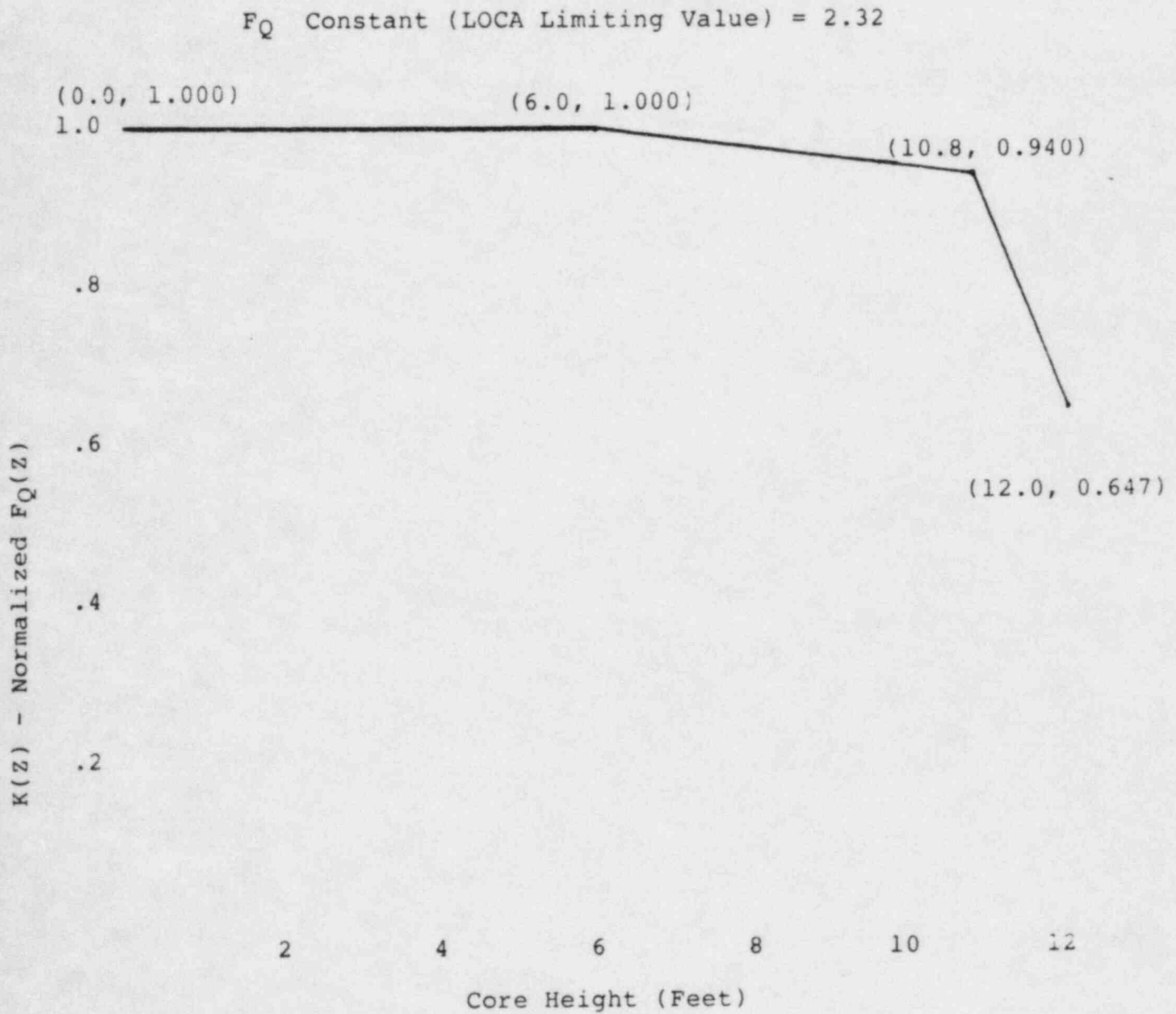
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63a
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LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
<p>3.2.2 Power Distribution Limits</p> <p>A. Hot Channel Factor Limits*</p> <p>1.1 At all times, except during physics tests at $\leq 75\%$ rated power**, the hot channel factors defined in the bases must meet the following limits:</p> <p><u>Units 1 and 2</u> $F_Q(Z) \leq [F_Q(Z)]_L = 2.32/P \times K(Z)$, for $P > 0.5$ $4.64 \times K(Z)$, for $P \leq 0.5$ $2.32 = F_Q$ constant (LOCA limiting value); $K(Z)$ = factor from Figure 3.2-9 selected at the core elevation, Z, of the measured F_Q;</p> <p>$[F_Q(Z)]_L = F_Q(Z)$ limit;</p> <p><u>Units 1 & 2</u> (For 4-loop operation above 2% thermal power)</p> <p>and $F_{NH} \leq 1.55 [1 + 0.3 (1 - P)]$ for $0.02 < P \leq 1.00$</p> <p>P = fraction of rated power at which the core operated during F_Q and F_{NH} measurement;</p> <p>* The hot channel factors above are defined for a period not to exceed the predicted minimum time to collapse exposure levels for each fuel region as referenced in the bases.</p> <p>** During Physics tests which may exceed these hot channel factor limits, the reactor may be in this condition for a period of time not to exceed eight hours continuously.</p>	<p>4.2.2 Power Distribution</p> <p>A. Hot Channel Factor Limits</p> <p>1.1 Following initial core loading and at a minimum of regular effective full power monthly intervals thereafter, power distribution maps, using the Movable Detector System, shall be made to confirm that the hot channel factor limits of this specification are satisfied.</p> <p>Following initial loading and each subsequent reloading, a power distribution map using the Movable Detector System, shall be made to confirm that power distribution limits are met, in the full power configuration before a unit is operated above 75% of rating.</p>

Figure 3.2-9 Hot Channel Factor Normalized
Operating Envelope for Units 1 and 2



Amendment Nos. 89 and 79

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significantly different from those resulting from operation within the target band. The instantaneous consequences of being outside the band, provided rod insertion limits are observed, is not worse than a 10 percent increment in peaking factor for flux difference in the range $\pm (\gamma + 3)$ percent ($+\gamma$ percent to $-\gamma$ percent indicated) increasing by ± 1 percent for each 2 percent decrease in rated power. Therefore, while the deviation exists the power level is limited to 90% of P_T or lower depending on the indicated flux difference.

If, for any reason, flux difference is not controlled within the ΔI target band for as long a period as one hour, then xenon distribution may be significantly changed and operation at 50 percent is required to protect against potentially more severe consequences of some accidents.

As discussed above, the essence of the procedure is to maintain the xenon distribution in the core as close to the equilibrium full power condition as possible. This is accomplished by using the boron system to position the full length control rods to produce the required indicated flux difference.

For Condition II events, the core is protected from overpower and a minimum DNBR of the applicable design limit DNBR by an automatic protection system. Compliance with operating procedures is assumed as a precondition for Condition II transients; however, operator error and equipment malfunctions are separately assumed to lead to the cause of transients considered.

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
<p>3.8.5 Accumulator System</p> <p>A. The four accumulators systems shall satisfy the following conditions whenever the reactor coolant system pressure exceeds 1000 psig except as specified in 3.8.5.A.5. (See 3.3.2.G for low RCS temperature operation.)</p> <ol style="list-style-type: none"> 1. Each accumulator shall be pressurized to at least 600 psig and shall contain minimum of 818 ft³ and a maximum of 888 ft³ of water. 2. Each accumulator shall contain water borated to at least 2000 ppm. 3. Each accumulator's isolation valve shall be open. 	<p>4.8.5 Accumulator System (Table 4.8-4)</p> <p>A. Surveillance and testing of the accumulator system shall be performed as follows:</p> <ol style="list-style-type: none"> 1. The pressure and level of the accumulator tanks shall be checked once a shift. At each 5% increase in level, the boron concentration will be checked. 2. The accumulator boron concentration shall be checked monthly. 3. The accumulator check valve operability (SI-8948A, B, C, and D) and (SI-8956A, B, C, and D) will be verified at each refueling outage by opening the accumulator outlet isolation valve (MOV-SI8808A, B, C, and D) and verifying a decrease in accumulator level and a leakage test to determine that no gross valve leakage is experienced. 4. Isolation Valves Not applicable.

Amendment Nos. 83 and 79