



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

CONSUMERS POWER COMPANY

DOCKET NO. 50-255

PALISADES PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 145
License No. DPR-20

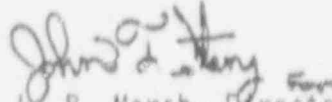
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Consumers Power Company (the licensee) dated May 30, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations 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;
 - 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 the license amendment and Paragraph 2.C.2 of Facility Operating License No. DPR-20 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 145, 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 its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



L. B. Marsh Director
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specification

Date of Issuance: May 18, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 145

FACILITY OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the amendment number and contain marginal lines indicating the area of change.

REMOVE

2-5
2-6

INSERT

2-5
2-6

TABLE 2.3.1

Reactor Protective System Trip Setting Limits

	<u>Four Primary Coolant Pumps Operating</u>	<u>Three Primary Coolant Pumps Operating⁽⁴⁾</u>
1. Variable High Power ⁽¹⁾	≤15% above core power, with a minimum setpoint of ≤30% of rated power and a maximum of ≤106.5% of rated power	≤15% above core power with a minimum setpoint of ≤15% rated power and a maximum of ≤49% of rated power
2. Primary Coolant Flow ⁽²⁾	≥95% of Primary Coolant Flow With Four Pumps Operating	≥60% of Primary Coolant Flow With Four Pumps Operating
3. High Pressure Pressurizer	≤2255 Psia	≤2255 Psia
4. Thermal Margin/Low Pressure ^(2,3)	$P_{trip} \geq$ Applicable Limits	Replaced by Variable High Power Trip and 1750 Psia Minimum Low-Pressure Setting
5. Steam Generator Low Water Level	Not Lower Than the Center Line of Feed-Water Ring	Not Lower Than the Center Line of Feed-Water Ring
6. Steam Generator Low Pressure ⁽²⁾	≥500 Psia	≥500 Psia
7. Containment High Pressure	≤3.70 Psig	≤3.70 Psig

(1) The VHPT can be 30% of rated power for power levels ≤ 20% of rated power.

(2) May be bypassed below 10⁻⁴% of rated power provided auto bypass removal circuitry is operable. For low power physics tests, thermal margin/low pressure, primary coolant flow and low steam generator pressure trips may be bypassed until their react points are reached (approximately 1750 psia and 500 psia, respectively), provided automatic bypass removal circuitry at 10⁻¹% rated power is operable.

(3) Minimum trip setting shall be 1750 psia.

(4) Operation with three pumps for a maximum of 12 hours is permitted to provide a limited time for repair/pump restart, to provide for an orderly shutdown or to provide for the conduct of reactor internals noise monitoring test measurements.

2.3 LIMITING SAFETY SYSTEM SETTINGS - REACTOR PROTECTIVE SYSTEM (Contd)

Basis

The reactor protective system consists of four instrument channels to monitor selected plant conditions which will cause a reactor trip if any of these conditions deviate from a preselected operating range to the degree that a safety limit may be reached.

1. Variable High Power - The variable high power trip (VHPT) is incorporated in the reactor protection system to provide a reactor trip for transients exhibiting a core power increase starting from any initial power level (such as the boron dilution transient). The VHPT system provides a trip setpoint no more than a predetermined amount above the indicated core power ($\leq 15\%$)⁽¹⁾ and also sets a maximum value. Operator action is required to increase the setpoint as core power is increased; the setpoint is automatically decreased as core power decreases. Provisions have been made to select different set points for three pump and four pump operations.

During normal plant operation with all primary coolant pumps operating, reactor trip is initiated when the reactor power level reaches 106.5% of indicated rated power. Adding to this the possible variation in trip point due to calibration and instrument errors, the maximum actual steady state power at which a trip would be actuated is 115%, which was used for the purpose of safety analysis.⁽⁴⁾

2. Primary Coolant System Low Flow - A reactor trip is provided to protect the core against DNB should the coolant flow suddenly decrease significantly.⁽³⁾ Flow in each of the four coolant loops is determined from a measurement of pressure drop from inlet to outlet of the steam generators. The total flow through the reactor core is measured by summing the loop pressure drops across the steam generators and correlating this pressure sum with the pump calibration flow curves. The percent of normal core flow is shown in the following table:

4 Pumps	100.0%
3 Pumps	74.7%

During four-pump operation, the low-flow trip setting of 95% insures that the reactor cannot operate when the flow rate is less than 93% of the nominal value considering instrument errors.⁽⁴⁾