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. 147
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 September 2, 1988, 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 hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 147 , 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

William O. Long

for 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
Specifications

Date of Issuance: June 22, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 147

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	INSERT
3-77	3-77
3-81a	3-81a
3-82	3-82
4-11b	4-11b

3.17 INSTRUMENTATION AND CONTROL SYSTEMS (Contd)

If the bypass is not effected, the out-of-service channel (Power Removed) assumes a tripped condition (except high rate-of-change power, variable high power and high pressurizer pressure), (1) which results in a one-out-of-three channel logic. If, in the 2 of 4 logic system of either the reactor protective system or the engineered safeguards system, one channel is bypassed and a second channel manually placed in a tripped condition, the resulting logic is 1 of 2. At rated power, the minimum operable variable high power level channels is 3 in order to provide adequate flux tilt detection. If only 2 channels are operable, the reactor power level is reduced to 70% rated power which protects the reactor from possibly exceeding design peaking factors due to undetected flux tilts.

The engineered safeguards system provides a 2 out of 4 logic on the signal used to actuate the equipment connected to each of the 2 emergency diesel generator units.

Two source-range channels are available any time reactivity changes are deliberately being introduced into the reactor and the neutron power is not visible on the wide-range nuclear instrumentation or above 10^{-4}% of rated power. This ensures that redundant source-range instrumentation is available to operators to monitor effects of reactivity changes when neutron power levels are only visible on the source-range channels. In the event only one source-range channel is available and the neutron power level is sufficiently high that it is being monitored by both channels of wide-range instrumentation, a startup can be performed in accordance with footnote (d) of Table 3.17.4.

The Recirculation Actuation System (RAS) initiates on a 1 out of 2 taken twice logic scheme. Any one channel declared inoperable shall be placed in a bypass condition to ensure protection from an inadvertent RAS actuation. Since the bypassing of a channel introduces the possibility for a failure to receive an automatic RAS actuation signal, the time period in the bypassed condition is limited.

The Zero Power Mode Bypass can be used to bypass the low flow, steam generator low pressure, and TM/LP trips (2) for all four Reactor Protective system channels to perform control rod testing or to perform low power physics testing below normal operating temperatures. The requirement to maintain cold shutdown boron concentration when in the bypass condition provides additional assurance that an accidental criticality will not occur. To allow low power physics testing at reduced temperature and pressure, the requirement for cold shutdown boron concentration is not required and the allowed power is increased to 10^{-4}%.

Sixteen (four per core quadrant) environmentally qualified core exit thermocouples (cable and connectors) with readout from 0 to 2300°F are provided for monitoring the potential approach to inadequate core cooling. The core exit thermocouples are an integral part of the incore detector assembly and are located at the top of each incore assembly to measure primary coolant core outlet temperatures.

References
(1) Updated FSAR, Section 7.2.7.
(2) Updated FSAR, Section 7.2.5.2

Table 3.17.4 (Cont'd)

No	Functional Unit	Minimum Operable Channels	Minimum Degree of Redundancy	Permissible Bypass Conditions
8.	Pressurizer Wide Range Water Level Indication	2 (m, n, o)	None	Not required in Cold or Refueling Shutdown
9.	Pressurizer Code Safety Relief Valves Position Indication (Acoustic Monitor or Temperature Indication)	1 per Valve	None	Not Required below 325°F
10.	Power Operated Relief Valves (Acoustic Monitor or Temperature Indication)	1 per Valve	None	Not required when PORV isolation valve is closed and its indication system is operable
11.	PORV Isolation Valves Position Indication	1 per Valve	None	Not required when reactor is depressurized and vented through a vent ≥1.3 sq.in.
12.	Subcooling Margin Monitor	1	None	Not required below 325°F
13.	Auxiliary Feed Flow Rate Indication	1 per flow(h) Control Valve	None	Not required below 325°F
14.	Auxiliary Feedwater Actuation System Sensor Channels	2 per steam generator	1	Not required below 325°F
15.	Auxiliary Feedwater Actuation System Actuation Channels	2(f)	1	Not required below 325°F
16.	Excore Detector Deviation Alarms	1(g)	None	Not required Below 25% of Rated Power
17.	Axial Shape Index Alarm	2(i)	1	Not Required Below 25% of Rated Power
18.	Reactor Vessel Water Level	2(j,k,l,m)	None	Not Required Below 325°F
19.	Core Exit Thermocouples	4/core Quadrant (p, q, r)	None	Not required below 200°F

Amendment No. 67, 68, 96, 118, 118, 129, 147,

3. Restore the system to OPERABLE status at the next scheduled refueling.

(m) The provisions of Specification 3.0.4 are not applicable.

(n) With one OPERABLE Pressurizer Wide Ran Water Level Channel in lieu of the requirement of 3.17.2, restore the inoperable channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

(o) With no OPERABLE Pressurizer Wide Range Water Level Channels in lieu of the requirements of 3.17.2, either restore at least one of the inoperable channels to OPERABLE status within 48 hours, or be in at least HOT SHUTDOWN within the next 12 hours.

(p) The environmentally qualified core exit thermocouples are used in determining the minimum channels operable requirement.

(q) With only three OPERABLE Core Exit Thermocouples per core quadrant, in lieu of the requirement of 3.17.2, either restore the inoperable channel to OPERABLE status within 7 days if repairs are feasible without shutting down or prepare and submit a Special Report to the Commission within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

(r) With the number of OPERABLE Core Exit Thermocouples less than three per core quadrant, in lieu of the requirements of 3.17.2, either restore three core exit thermocouples per core quadrant to OPERABLE status within 48 hours, or be in HOT SHUTDOWN or below within the next 12 hours and the reactor shall be placed in a condition where the affected equipment is not required, within 48 hours.

3.18 (Deleted)

TABLE 4.1.3

Minimum Frequencies for Checks, Calibrations & Testing of Miscellaneous Instrumentation and Controls (Contd)

Channel Description	Surveillance Function	Frequency	Surveillance Method
21 Core Exit Thermocouples(6)	a. Check	M	a. Comparison of Channels
	b. Calibrate	(6)	b. Known voltage substituted for thermocouple

(6) Only applicable to the environmentally qualified core exit thermocouples. These thermocouples will be calibrated on a refueling cycle frequency.