

May 19, 1989

*See Correction Letter
of 6/30/89*

Docket No. 50-255
Serial No. PAL-89-002

Mr. Kenneth W. Berry
Director, Nuclear Licensing
Consumers Power Company
1945 West Parnall Road
Jackson, Michigan 49201

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Dear Mr. Berry:

SUBJECT: AMENDMENT NO. 122 TO PROVISIONAL OPERATING LICENSE NO. DPR-20;
ALTERNATE SHUTDOWN SYSTEM (TAC NO. 72079)

The Commission has issued Amendment No. 122 to Provisional Operating License No. DPR-20 for the Palisades Plant. This amendment consists of changes to the Appendix A Technical Specifications (TSs) in response to your application dated November 21, 1985.

Your application proposed changes to the TSs relating to the alternative shutdown system and to emergency lighting requirements. This amendment addresses only the proposed changes to the alternate shutdown system. The proposed changes relating to the emergency lighting systems are being denied at this time because it is our understanding that Consumers Power Company will soon commit to a schedule for including fire protection requirements in the FSAR.

This amendment revises the TSs to require specific alternate shutdown system equipment and instrumentation to be operable whenever the reactor coolant temperature is at or above 325°F and imposes periodic surveillance requirements to demonstrate operability of the system. The changes add Specification 3.25, including Table 3.25.1 and Specification 4.20, including Table 4.20.1.

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/s/

Albert W. De Agazio, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 122 to
License No. DPR-20
2. Safety Evaluation

cc w/enclosures:

See next page

*SEE PREVIOUS CONCURRENCE

*LA/PD31:DRSP
PShuttleworth
5/5/89

*PM/PD31:DRSP
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Mr. Kenneth W. Berry
Consumers Power Company

Palisades Plant

cc:

M. I. Miller, Esquire
Sidley & Austin
54th Floor
One First National Plaza
Chicago, Illinois 60603

Mr. Thomas A. McNish, Secretary
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Judd L. Bacon, Esquire
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Jerry Sarno
Township Supervisor
Covert Township
36197 M-140 Highway
Covert, Michigan 49043

Office of the Governor
Room 1 - Capitol Building
Lansing, Michigan 48913

Mr. Gerald B. Slade
Plant General Manager
Palisades Plant
27780 Blue Star Memorial Hwy.
Covert, Michigan 49043

Resident Inspector
c/o U.S. Nuclear Regulatory Commission
Palisades Plant
27782 Blue Star Memorial Hwy.
Covert, Michigan 49043

Nuclear Facilities and
Environmental Monitoring
Section Office
Division of Radiological
Health
P.O. Box 30035
Lansing, Michigan 48909



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

CONSUMERS POWER COMPANY

PALISADES PLANT

DOCKET NO. 50-255

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 122
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 November 21, 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 3.B. of Provisional 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. 122, 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 and shall be implemented not later than July 3, 1989 .

FOR THE NUCLEAR REGULATORY COMMISSION



Lawrence A. Yandell, Acting Director
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 19, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 122

PROVISIONAL 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 captioned amendment number and contain marginal lines indicating the area of change.

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PALISADES PLANT TECHNICAL SPECIFICATIONS
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3.25 ALTERNATE SHUTDOWN SYSTEM

LIMITING CONDITION FOR OPERATION

- 3.25.1 The Alternate Shutdown System instrumentation and components shown in Table 3.25.1 shall be OPERABLE. Operability shall be demonstrated by performing the surveillances in accordance with Section 4.20.

APPLICABILITY:

Reactor coolant temperature \geq 325°F.

ACTION:

- a. With less than the "Minimum Equipment" in Table 3.25.1 Operable, restore the inoperable equipment to Operable within 7 days, or provide equivalent shutdown capability and restore the inoperable equipment to Operable within 60 days; or be in Hot Shutdown within the next 12 hours and Cold Shutdown within the following 24 hours.
- b. The provisions of Specification 3.0.3 and 3.0.4 do not apply.

Basis

The operability of the Alternate Shutdown System ensures that any fire will not preclude achieving safe shutdown. The Alternate Shutdown System components are independent of areas where a fire could damage systems normally used to shut down the reactor. This capability is consistent with Regulatory Guide 1.97 and Appendix R to 10CFR50.

Table 3.25.1

ALTERNATE SHUTDOWN MINIMUM EQUIPMENT

<u>No</u>	<u>Instrumentation</u>	<u>Minimum Equipment</u>	<u>Readout Location</u>
1	Pressurizer Pressure (PI-0110)	1	C150
2	Pressurizer Level (LI-0102E)	1	C150
3	Reactor Coolant Hot Leg Temperature (TI-0112HAA) (TI-0122HAA)	1/Loop	C150A
4	Reactor Coolant Cold Leg Temperature (TI-0112CAA) (TI-0122CAA)	1/Loop	C150A
5	Steam Generator Pressure (PI-0751E) (PI-0752E)	1/S.G.	C150A
6	Steam Generator Level (LI-0757C) (LI-0758C)	1/S.G.	C150
7	Start-up Range Neutron Monitor (N-001A)	1	C150A
8	Auxiliary Feedwater Suction Pressure (PS-0741D)	1	C150
9	SIRW Tank Level (LT-0332B)	1	C150A
10	Auxiliary Feedwater Flow Rate (FI-0727B) (FI-0749B)	1/S.G.	C150

Table 3.25.1

(Continued)

ALTERNATE SHUTDOWN MINIMUM EQUIPMENT

<u>No</u>	<u>Transfer Switches</u>	<u>Minimum Equipment</u>	<u>Switch Location</u>	<u>Function</u>
11	HS-0102A	1	C150	Control Room Alarm
12	HS-0102B	1	C150	S/G Level Indications Pressurizer Level Indications Aux. FW Flow Indication Aux. FW Flow Control
13	HS-0522C		C150	Opens Aux. FW Pump Steam Valve CV-0522B
14	HS-0102C	1	C150A	Control Room Alarm S/G Pressure Indications Hot/Cold Leg Temperature Indications

<u>No</u>	<u>Control Circuits</u>	<u>Minimum Equipment</u>	<u>Controls From</u>	<u>Function</u>
15	Auxiliary FW Flow Control (HIC-0727C)	1	C150	Controls B S/G Aux. FW Flow Control Valve (CV-0727)
16	Auxiliary FW Flow Control (HIC-0749C)	1	C150	Controls A S/G Aux. FW Flow Control Valve (CV-0749)

4.20 MODERATOR TEMPERATURE COEFFICIENT (MTC)

SURVEILLANCE REQUIREMENTS

- 4.20.1 The MTC shall be determined to be within its limits by confirmatory measurements prior to initial operation above 2% of rated thermal power, after each refueling.

4.21 ALTERNATE SHUTDOWN SYSTEM

SURVEILLANCE REQUIREMENTS

- 4.21.1 Each alternate shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performing a channel check and a channel calibration per Table 4.21.1.
- 4.21.2 Each alternate shutdown system transfer switch and control circuit shall be demonstrated OPERABLE by operating each activated component from the alternate shutdown panel, at least once per refueling cycle.

TABLE 4.21.1

ALTERNATE SHUTDOWN MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>Channel Description</u>	<u>Surveillance Function</u>	<u>Frequency</u>	<u>Surveillance Method</u>
1. Pressurizer Pressure Indication (PI-0110)	a. Check(1)	Quarterly	a. Compare independent pressure readings
	b. Calibrate	Refueling Cycle	b. Known pressure applied to pressure sensor
2. Pressurizer Level Indication (LI-0102E)	a. Check(1)	Quarterly	a. Compare independent level readings
	b. Calibrate	Refueling Cycle	b. Apply known differential pressure to level sensor
3. Reactor Coolant Hot Leg Temperature Indication (TI-0112HAA) (TI-0122HAA)	a. Check(1)	Quarterly	a. Compare independent temperature readings
	b. Calibrate	Refueling Cycle	b. Substitute known resistance for RTD
4. Reactor Coolant Cold Leg Temperature Indication (TI-0112CAA) (TI-0122CAA)	a. Check(1)	Quarterly	a. Compare independent temperature readings
	b. Calibrate	Refueling Cycle	b. Substitute known resistance for RTD
5. Steam Generator Pressure Indication (PI-0751E) (PI-0752E)	a. Check(1)	Quarterly	a. Compare independent pressure readings
	b. Calibrate	Refueling Cycle	b. Apply known pressure to pressure sensor
6. Steam Generator Level Indication (LI-0757C) (LI-0758C)	a. Check(1)	Quarterly	a. Compare independent level readings
	b. Calibrate	Refueling Cycle	b. Apply known differential pressure to level sensor

TABLE 4.21.1 (Continued)

ALTERNATE SHUTDOWN MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>Channel Description</u>	<u>Surveillance Function</u>	<u>Frequency</u>	<u>Surveillance Method</u>
7. Start-up Range Neutron Monitor (N-001A)	a. Test	Prior to startup(4)	a. Internal test signal
8. Auxiliary Feedwater Low Suction Pressure Switch (PS-0741D)	a. Calibrate	Refueling Cycle	a. Apply known pressure to pressure sensor
9. SIRW Tank Level Indication (LI-0332B)	a. Check(1) b. Calibrate	Quarterly Refueling Cycle	a. Compare independent level readings b. Apply known differential pressure to level sensor
10. Auxiliary Feedwater Flow Rate(2) Indication (FI-0727B) (FI-0749B)	a. Calibrate	Refueling Cycle	a. Apply known differential pressure to sensor(s)
11. Auxiliary Feedwater Flow Control(3) Valves (CV-0727 & CV-0749)	a. Check	Refueling Cycle	a. Verify Control
12. Auxiliary Feedwater Pump Inlet Steam Valve (CV-0522B)	a. Check	Refueling Cycle	a. Verify Control

NOTES:

(1)Quarterly checks are not required when the plant is less than 325°F.

(2)Satisfies Table 4.1.3-15 Requirement.

(3)See Specification 4.9b.

(4)Prior to each startup, if not done previous week.

(Next page is 4-90)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 122 TO PROVISIONAL OPERATING LICENSE NO. DPR-20
CONSUMERS POWER COMPANY
PALISADES PLANT
DOCKET NO. 50-255

1.0 INTRODUCTION

By letter dated November 21, 1985, Consumers Power Company (licensee) proposes to amend Appendix A Technical Specifications (TSs) to Provisional Operating License No. DPR-20 for the Palisades Plant. The proposed amendment would change the TSs relating to the alternate shutdown system and to the emergency lighting systems requirements. This amendment addresses only the proposed changes to the alternate shutdown system. The proposed changes relating to the emergency lighting systems are being denied at this time because it is our understanding that Consumers Power Company will soon commit to a schedule for including fire protection requirements in the FSAR.

This amendment revises the TSs to require specific alternate shutdown system equipment and instrumentation to be operable whenever the reactor coolant temperature is at or above 325° F and imposes periodic surveillance requirements to demonstrate operability of the system. The changes add Specification 3.25, including Table 3.25.1 and Specification 4.20, including Table 4.20.1.

2.0 EVALUATION

On May 26, 1983, the Commission issued a Safety Evaluation documenting our review of Consumers Power Company's proposed modifications and alternate capability for achieving safe shutdown in the event of fire in certain areas of the Palisades Plant. Those proposed modifications were reviewed against the requirements of Sections III.G and III.L of Appendix R to 10 CFR Part 50. Our review concluded that the Palisades plant would be in compliance with Sections III.G and III.L upon implementation of the modifications. Consumers Power Company has verified that the modifications were completed and the alternate shutdown system was declared operable by February 1, 1986.

We have reviewed Consumers Power Company's November 21, 1985, application for amendment. We have determined that the proposed changes to add operability requirements for the alternative shutdown system, to specify the minimum associated equipment required to be operable, and to specify surveillance requirements are consistent with our Safety Evaluation dated May 26, 1983. We have compared the list of instrumentation and equipment associated with the alternate shutdown system upon which we based our earlier evaluation to the

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list of minimum equipment required to be operable (Table 3.25.1) as proposed in the application. Our review revealed no omissions in the proposed changes.

The proposed action required in the event the minimum equipment specified is not operable would be to either restore the equipment to operable status or to provide equivalent shutdown capability within 7 days; otherwise hot and cold shutdown would be required in the next 12 and 24 hours, respectively. Furthermore, within 60 days the equipment would have to be restored to operable status even if equivalent protection is provided. We believe that the time specified to take compensatory or corrective actions is reasonable and commensurate to the risk of a fire in one of those fire areas for which the alternate shutdown system is required.

Based on the considerations discussed above, we conclude that the TS requirement for operability will provide additional assurance that a fire at the Palisades Plant will not prevent safe shutdown of the facility.

We have reviewed the proposed list of equipment (Table 4.20.1) that would be subject to periodic surveillance tests to demonstrate alternate shutdown system operability. Our review shows the list to be consistent with the minimum equipment required to be operable. We, therefore, conclude that the proposed surveillance requirements are adequate to demonstrate the required operability of the alternate shutdown system

3.0 ENVIRONMENTAL CONSIDERATION

This 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 and changes to the surveillance requirements. We have 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 finding. Accordingly, this amendment 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.

4.0 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: May 19, 1989

Principal Contributor: Albert W. De Agazio