

January 21, 1983

Docket No. 50-255
LS05-83-01-032

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Mr. David Vandewalle
Nuclear Licensing Administrator
Consumers Power Company
1945 West Parnall Road
Jackson, Michigan 49201

Dear Mr. Vandewalle:

SUBJECT: TECHNICAL SPECIFICATIONS CHANGES RELATED TO BORON
CONCENTRATION IN THE SAFETY INJECTION TANK

Palisades Plant

The Commission has issued the enclosed Amendment No. 74 to Provisional
Operating License No. DPR-20 for the Palisades Plant. This amendment
consists of changes to the Technical Specifications in response to your
application dated December 15, 1982.

This amendment approves changes to the Appendix A Technical Specifi-
cations for the boron concentration in Safety Injection Tank T-82B and
the frequency of performing sample tests of that tank for the remainder
of Cycle 5.

Copies of our related Safety Evaluation and the Notice of Issuance are
also enclosed.

Sincerely,

Original signed by

Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

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DSU USE(04)

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Enclosures:

1. Amendment No. 74 to License No. DPR-20
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:
See next page

OFFICE	DL: ORB #5 HSmith:cc	DL: ORB #5 TWambach	OELD H. KARMAN	DL: ORB #5 DCrutchfield	DL: ORB #5 FM [Signature]		
SURNAME	HSmith:cc	TWambach	H. KARMAN	DCrutchfield	FM [Signature]		
DATE	1/12/83	1/20/83	1/21/83	1/21/83	1/21/83		

Mr. David J. Vandewalle

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January 21, 1983

cc

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Chicago, Illinois 60670

Mr. Paul A. Perry, Secretary
Consumers Power Company
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Jackson, Michigan 49201

Judd L. Bacon, Esquire
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James G. Keppler, Regional Administrator
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Glen Ellyn, Illinois 60137

Township Supervisor
Covert Townshi
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Van Buren County, Michigan 49043

Office of the Governor (2)
Room 1 - Capitol Building
Lansing, Michigan 48913

Palisades Plant
ATTN: Mr. Robert Montross
Plant Manager
Covert, Michigan 49043

U. S. Environmental Protection Agency
Federal Activities Branch
Region V Office
ATTN: Regional Radiation Representative
230 South Dearborn Street
Chicago, Illinois 60604

Resident Inspector
c/o U. S. NRC
Palisades Plant
Route 2, P. O. Box 155
Covert, Michigan 49043



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

CONSUMERS POWER COMPANY

DOCKET NO. 50-255

PALISADES PLANT

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 74
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 December 15, 1982 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:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B (Environmental Protection Plan) as revised through Amendment No. 74, 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


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 21, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 74

PROVISIONAL OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Revise Appendix A Technical Specifications by removing the following pages and by inserting the enclosed pages. The revised pages contain the captioned amendment number and marginal lines indicating the area of change.

PAGES

3-29

4-14

3.3 EMERGENCY CORE COOLING SYSTEM

Applicability

Applies to the operating status of the emergency core cooling system.

Objective

To assure operability of equipment required to remove decay heat from the core in either emergency or normal shutdown situations.

Specifications

Safety Injection and Shutdown Cooling Systems

- 3.3.1 The reactor shall not be made critical, except for low-temperature physics tests, unless all of the following conditions are met:
- a. The SIRW tank contains not less than 250,000 gallons of water with a boron concentration of at least 1720 ppm but not more than 2000 ppm at a temperature not less than 40°F.
 - b. All four Safety Injection tanks are operable and pressurized to at least 200 psig with a tank liquid level of at least 186 inches (55.5%) and a maximum level of 198 inches (59%) with a boron concentration of at least 1720 ppm but not more than 2000 ppm.*
 - c. One low-pressure Safety Injection pump is operable on each bus.
 - d. One high-pressure Safety Injection pump is operable on each bus.
 - e. Both shutdown heat exchangers and both component cooling heat exchangers are operable.
 - f. Piping and valves shall be operable to provide two flow paths from the SIRW tank to the primary cooling system.
 - g. All valves, piping and interlocks associated with the above components and required to function during accident conditions are operable.
 - h. The Low-Pressure Safety Injection Flow Control Valve CV-3006 shall be opened and disabled (by isolating the air supply) to prevent spurious closure.
 - i. The Safety Injection bottle motor-operated isolation valves shall be opened with the electric power supply to the valve motor disconnected.
 - j. The Safety Injection miniflow valves CV-3027 and 3056 shall be opened with HS-3027 and 3056 positions to maintain them open.

*For the remainder of cycle 5, Safety Injection tank T-82B is to have a boron concentration greater than or equal to the primary coolant system boron concentration, but not to exceed 2000 ppm.

TARIF 4.2.1

Minimum Frequencies for Sampling Tests

	<u>Test</u>	<u>Frequency</u>	<u>FSAR Section Reference</u>
1. Reactor Coolant Samples	Gross Activity Determination	3 Times/7 days with a maximum of 72 hours between samples (T avg greater than 500°F).	None
	Gross Gamma by Fission Product Monitor	Continuous when T avg is greater than 500°F(1).	None
	Isotopic analysis for dose equivalent I-131 concentration	1/14 days during power operation	None
	Radio chemical for E determination	1/6 months (2)	None
	Isotopic analysis for iodine, including I-131, 133, 135	a) Once/4 hours, whenever dose equivalent I-131 exceeds 1.0 µCi/gram, and b) One sample between 2 and 6 hours following a thermal power change exceeding 15% of rated thermal power within a one hour period.	
	Chemistry (C1 and O ₂)	3 times/7 days with a maximum of 72 hours between samples (T avg greater than 210°F).	
	Chemistry (F1)	Once/30 days and following modifications or repair to the primary coolant system involving welding.	
2. Reactor Coolant Boron	Boron Concentration	Twice/Week	None
3. SIRW Tank Water Sample	Boron Concentration	Monthly	None
4. Concentrated Boric Acid Tanks	Boron Concentration	Monthly	None
5. SI Tanks	Boron Concentration	Monthly	6.1.2*

*For T-82B

-weekly

-within one hour of a primary coolant system boration greater than 70 ppm.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 74 TO PROVISIONAL OPERATING LICENSE NO. DPR-20

CONSUMERS POWER COMPANY

PALISADES PLANT

DOCKET NO. 50-255

1.0 INTRODUCTION

By letter dated December 15, 1982, Consumers Power Company (the licensee) requested an amendment to the Appendix A Technical Specifications appended to License No. DPR-20 for the Palisades Plant. The amendment would change the provisions for required boron concentration and sampling frequency of one of the four safety injection tanks for the remainder of Cycle 5.

2.0 BACKGROUND AND DISCUSSION

The Palisades Plant has been experiencing minor leakage (within Technical Specification limits) of primary coolant into Safety Injection Tank (SIT) T-82B. In order to prevent this leakage from causing the boron concentration in T-82B to decrease below the Technical Specification lower limit of 1720 ppm, operator action is currently required to restore the boron concentration in T-82B by frequently raising and lowering the fluid level in this tank. The problem has been compounded by a failure of the SIT level indicating system which necessitates operator reliance on the high and low level switch alarms for level indication. Each time one of the alarms is received, the SIT must be declared inoperable until the level and boron concentration are reestablished within the Technical Specification limits (TS 3.3.1.b). Since maintaining the fluid level in T-82B is important with regard to Loss of Coolant Accident (LOCA) analyses, the licensee has proposed Technical Specification changes which will allow the fluid level in T-82B to be within the Technical Specification limits a greater percentage of the time than at present.

The proposed Technical Specification changes would reduce the minimum required boron concentration in SIT T-82B from 1720 ppm to not less than the primary coolant system boron concentration for the remainder of Cycle 5. The frequencies for sampling the boron concentration in T-82B will be increased to "weekly" from "monthly" and to within one hour of a primary coolant system boron concentration greater than 70 ppm.

3.0 EVALUATION

The licensee has stated that safety analyses were performed for LOCA events to determine the SIT boron concentration required to maintain the reactor in a shutdown condition during a LOCA. The analyses assumed that all control rods remained fully withdrawn and that the contents of one SIT with a boron concentration of 1720 ppm emptied into the containment via the primary coolant system break, leaving two tanks with 1720 ppm and one tank with a boron concentration equal to that in the primary coolant system. The results showed that these assumptions were sufficient to shutdown the reactor and maintain it in a shutdown condition throughout the LOCA under all conditions of burnup, power level, and xenon level. We find the assumptions to be conservative and the results acceptable. In addition, by maintaining the boron concentration in one SIT equal to or greater than the primary coolant system boron concentration, a boron dilution event cannot occur. Therefore, the proposed Technical Specification change which would allow the SIT T-82B to have a boron concentration lower limit equal to the primary coolant system boron concentration is acceptable for the remainder of Cycle 5.

The proposed changes in the frequencies for sampling the T-82B boron concentration allow for a closer monitoring of the boron concentration in T-82B and are, therefore, acceptable.

Based on the above evaluation, we find the Technical Specification changes proposed for Palisades to deal with the current problems involving primary coolant leakage into SIT T-82B acceptable for the remainder of Cycle 5.

4.0 ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR §51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

We have concluded, based on the considerations discussed above, that:
(1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration;

(2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ACKNOWLEDGEMENTS

Lawrence Kopp contributed to this evaluation.

Date: January 21, 1983

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-255CONSUMERS POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO PROVISIONAL
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 74 to Provisional Operating License No. DPR-20, issued to Consumers Power Company (the licensee), which revised the Technical Specifications for operation of the Palisades Plant (the facility) located in Van Buren County, Michigan. This amendment is effective as of its date of issuance.

The amendment approves changes to the Appendix A Technical Specifications for required boron concentration and sampling frequency of one of the four safety injection tanks for the remainder of Cycle 5.

The application for amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

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For further details with respect to this action, see (1) the application for amendment dated December 15, 1982, (2) Amendment No. 74 to License No. DPR-20, and (3) the Commission's related Safety Evaluation. These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the Kalamazoo Public Library, 315 South Rose Street, Kalamazoo, Michigan 49006. A single copy of items (2) and (3) may be obtained by request addressed to the U. S. Nuclear Regulatory Commission, Washington D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 21st day of January, 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis M. Crutchfield
Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing