

February 1, 1988

Docket No. 50-255

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: PALISADES PLANT-ISSUANCE OF AMENDMENT NO.110 TO DPR-20, CHANGE TO TECHNICAL SPECIFICATIONS FOR SECONDARY WATER CHEMISTRY (TAC NO. 66980)

The Commission has issued the enclosed Amendment No. 110 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 January 19, 1988.

This amendment deletes the secondary water chemistry limits and surveillance requirements from the Technical Specifications for the plant and replaces them with program requirements for secondary chemistry in the administrative section of the Technical Specifications.

You also requested that we take prompt action on this change request in accordance with the provisions in 10 CFR 50.91(a)(6) for exigent circumstances. We have found that exigent circumstances did exist and, therefore, processed this change under the provisions of the regulation referenced.

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

Sincerely,

Original signed by

Thomas V. Wambach, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

Enclosures:

- Amendment No. 110 to License No. DPR-20
- Safety Evaluation

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PDR	ADDOCK 05000255
P	PDR

cc w/enclosures:
See next page

8802090041

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J. Scinto by telephone
OGC *JVM*
1/27/88

February 1, 1988

CORRECTED

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Thomas V. Wambach, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

Enclosures:

1. Amendment No. 110 to License No. DPR-20
2. Safety Evaluation

cc w/enclosures:
See next page

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1/27/88



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. 110
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 January 19, 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; 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.

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P PDR

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. 110, 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

for Thomas V. Wambach
Martin J. Virgilio, Director
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 1, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 110

PROVISIONAL OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

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

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Table 4.2.1
Minimum Frequencies for Sampling Tests

	<u>Test</u>	<u>Frequency</u>	<u>FSAR Section Reference</u>
6. Spent Fuel Pool	Boron Concentration	Monthly ⁽⁷⁾	9.4
	Bulk Water Temperature	Continuously when bundles are stored in tilt pit racks with less than one year decay ⁽⁶⁾	None
7. Secondary Coolant	Gas Radioactivity by Air Ejector Gas Monitor	Continuous ⁽⁵⁾ during power operation	None
	Coolant Gross Radioactivity	3 times/7 days with a maximum of 72 hours between samples	None
			/
			/
			/
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	Isotopic Analysis for Dose Equivalent I-131 Concentration	a) 1 per 31 days, whenever the gross activity determination indicates iodine concentrations greater than 10% of the allowable limit b) 1 per 6 months, whenever the gross activity determination indicates iodine concentrations below 10% of the allowable limit.	
8. Liquid Radwaste	Radioactivity Analysis	Prior to release of each batch	11.1
9. Radioactive Gas Decay	Radioactivity Analysis	Prior to release of each batch	11.1
10. Stack-Gas Monitor Particulate Samples	Iodine 131 and Particulate Radioactivity	Weekly ⁽⁴⁾	11.1

ADMINISTRATIVE CONTROLS

6.22

SECONDARY WATER CHEMISTRY

A program shall be established, implemented and maintained for monitoring of secondary water chemistry to inhibit steam generator tube degradation and shall include:

1. Identification of a sampling schedule for the critical variables and control points for these variables,
2. Identification of the procedures used to measure the values of the critical variables,
3. Identification of process sampling points, which shall include monitoring the discharge of the condensate pumps for evidence of condenser in-leakage,
4. Procedures for the recording and management of data,
5. Procedures defining corrective actions for all off-control point chemistry conditions, and
6. A procedure identifying (a) the authority responsible for the interpretation of the data, and (b) the sequence and timing of administrative events required to initiate corrective actions.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 110 TO PROVISIONAL OPERATING LICENSE NO. DPR-20

CONSUMERS POWER COMPANY

PALISADES PLANT

DOCKET NO. 50-255

INTRODUCTION

By application dated January 19, 1988, Consumers Power Company (the licensee) requested changes to the Technical Specifications to delete the secondary water chemistry limits in Specification 3.18, along with surveillance requirements in Table 4.2.1, and to replace them with program requirements in Section 6, the administrative section of the Technical Specifications.

These changes are required in order to implement the use of boric acid addition to the secondary steam generator water to minimize steam generator corrosion and denting. The licensee's consultant recommended that Palisades should initiate boric acid secondary water treatment to alleviate the denting process.

EVALUATION

The NRC generally does not include secondary water chemistry limits or specific sampling locations and frequency in the Technical Specifications which are incorporated in the present Palisades Technical Specifications. Most pressurized water reactors (PWRs) follow a program for monitoring of secondary water chemistry to inhibit steam generator corrosion which is specified in the administrative controls section of the Standard Technical Specifications. By Generic Letter 85-02, issued April 17, 1985, the NRC issued NUREG-0844, "NRC Integrated Program for the Resolution of Unresolved Safety Issues A-3, A-4, and A-5 Regarding Steam Generator Tube Integrity."

This publication gave the staff's recommendations with regard to secondary water chemistry, which is to have a secondary water chemistry program. Specifically, the NRC staff's recommendations are stated as follows:

"Licensees and applicants should have a secondary water chemistry program (SWCP) to minimize steam generator tube degradation. The specific plant program should incorporate the secondary water chemistry guidelines in SGOG Special Report EPRI-NP-2704, "PWR Secondary Water Chemistry Guidelines," October 1982, and should address measures taken to minimize steam generator corrosion, including materials selection, chemistry limits, and control methods. In addition, the specific plant procedures should include progressively more stringent corrective actions for out-of-specification water chemistry

conditions. These corrective actions should include power reductions and shutdowns, as appropriate, when excessively corrosive conditions exist. Specific functional individuals should be identified as having the responsibility/authority to interpret plant water chemistry information and initiate appropriate plant actions to adjust chemistry, as necessary."

Revision 1 to "PWR Secondary Water Chemistry Guidelines" March 1987, EPRI NP-5056-SR, Appendix A, provides control parameter guidance for boric acid treatment as a remedial action for steam generator tube denting, which the NRC staff has endorsed.

The licensee proposed, and this amendment includes, the provisions of the Standard Technical Specifications for PWRs. The licensee's application discusses how each of these requirements are met and provides the plant procedures which implement each of the required elements. We find that these procedures adequately implement the criteria for a secondary water chemistry program by incorporating the Standard Technical Specifications, and this change is therefore acceptable.

EXIGENT CIRCUMSTANCES

The licensee requested that the NRC take prompt action on this change request in accordance with the provisions in 10 CFR 50.91(a)(6) for exigent circumstances. The exigent circumstances result from the fact that the licensee has recently completed an inspection of the steam generators following a plant shutdown on December 4, 1987, because of a steam generator tube leak. The inspection results indicate a correlation between the crack in the tube and tube denting which occurs at the support plant-tube interface. To mitigate or stop the progression of tube denting, the licensee proposes a change in the chemistry control being used on the secondary side of the steam generator by the addition of boric acid. This will not allow the licensee to meet the limits that were in place for the previous chemical treatment program. The plant is scheduled to go back on line on January 29, 1988. Specification 3.18 states that the chemistry limits must be met within 72 hours of going back on line. Therefore, an exigent change was needed. The NRC staff has determined that the licensee used its best efforts to make a timely application under the circumstances, and that exigent circumstances do exist and were not the result of any fault of the licensee.

FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility, in accordance with the amendment, would not:

- (1) involve a significant increase in the probability or consequences of any accident previously evaluated; or
- (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or

(3) involve a significant reduction in a margin of safety.

The requested amendment has been evaluated against the standards in 10 CFR 50.92, and we have made a determination that the requested amendment involves no significant hazards considerations. Water chemistry requirements do not establish minimum performance levels for plant safety and are adequately controlled as a plant procedure. Thus, the change would not affect the probability of any accident previously evaluated. In fact, the change to boric acid addition proposed by the licensee would be beneficial in mitigating steam generator degradation. The changes in secondary water chemistry do not affect the consequences of any accident previously considered nor create the possibility of an accident of a different kind, nor decrease any margin of safety.

STATE CONSULTATION

In accordance with the Commission's regulations, the designated representative of the State of Michigan was contacted regarding this amendment. The State representative had no comments.

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 a change in a surveillance requirement. 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.

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, and (2) such activities will be conducted in compliance with the Commission's regulations, and 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: February 1, 1988

Principal Contributor: Thomas V. Wambach, NRR

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