



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

WISCONSIN ELECTRIC POWER COMPANY
DOCKET NO. 50-266
POINT BEACH NUCLEAR PLANT, UNIT NO. 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 51
License No. DPR-24

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Wisconsin Electric Power Company (the licensee) dated March 31, 1981, 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.

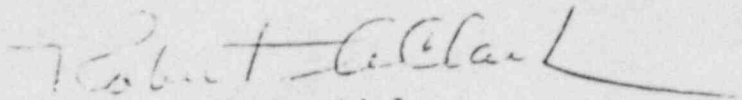
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-24 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 51, 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



Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 10, 1981

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 51 TO FACILITY OPERATING LICENSE NO. DPR-24

DOCKET NO. 50-266

Revise Appendix A as follows:

Remove Pages

15.3.1-8a
15.3.1-17
Table 15.3.1-1

Insert Pages

15.3.1-8a
15.3.1-17
Table 15.3.1-1

scheduled removal dates will provide materials data representative of about 10%, 20%, 50%, 70%, and 90% of the actual reactor vessel exposure anticipated during the vessel life.

References

- (1) FSAR, Section 4.1.5
- (2) Westinghouse Electric Corporation, WCAP-8739
- (3) Westinghouse Electric Corporation, WCAP-8743
- (4) Westinghouse Electric Corporation, WCAP-8738

Unit 1 - Amendment No. 51

Unit 2 - Amendment No. 57 15.3.1-8a

F. MINIMUM CONDITIONS FOR CRITICALITY

Specification:

1. Except during low power physics tests, the reactor shall not be made critical unless the moderator temperature coefficient is negative.
2. In no case shall the reactor be made critical (other than for the purpose of low level physics tests) to the left of the reactor core criticality curve presented in Figures 15.3.1-1 for Unit 1 and 15.3.1-3 for Unit 2.
3. When the reactor coolant temperature is in a range where the moderator temperature coefficient is positive, the reactor shall be subcritical by an amount equal to or greater than the potential reactivity insertion due to depressurization.
4. The reactor shall be maintained subcritical by at least $1\% \frac{\Delta k}{k}$ until normal water level is established in the pressurizer.

Basis:

During the early part of the initial fuel cycle, the moderator temperature coefficient is calculated to be slightly positive at coolant temperatures below the power operating range. ⁽¹⁾⁽²⁾ The moderator coefficient at low temperatures will be most positive at the beginning of life of the initial fuel cycle, when the boron concentration in the coolant is the greatest. Later in the life of the fuel cycle, the boron concentrations in the coolant will be lower and the moderator coefficients will be either less positive or will be negative. At all times, the moderator coefficient is negative in the power operating range. ⁽¹⁾⁽²⁾ Suitable physics measurements of moderator coefficient of reactivity will be made as part of the startup program to verify analytic predictions.

Unit 1 - Amendment No. 51

Unit 2 - Amendment No. 57

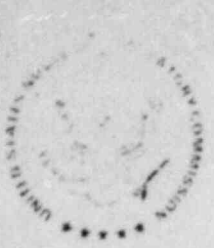
15.3.1-17

TABLE 15.3.1-1

POINT BEACH NUCLEAR PLANT, UNIT NO. 1
REACTOR VESSEL SURVEILLANCE CAPSULE REMOVAL SCHEDULE

<u>Capsule Letter</u>	<u>Approximate Removal Date*</u>
V	September 1972 (actual)
S	December 1975 (actual)
R	October 1977 (actual)
T	Fall 1983
P	Fall 1987
N	Standby

*The actual removal dates will be adjusted to coincide with the closest scheduled plant refueling outage or major reactor plant shutdown.



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

WISCONSIN ELECTRIC POWER COMPANY

DOCKET NO. 50-301

POINT BEACH NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 57
License No. DPR-27

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Wisconsin Electric Power Company (the licensee) dated March 31, 1981, 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.

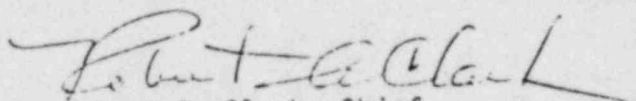
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.8 of Facility Operating License No. DPR-27 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 57, 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



Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 10, 1981

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 57 TO FACILITY OPERATING LICENSE NO. DPR-27

DOCKET NO. 50-301

Revise Appendix A as follows:

Remove Pages

15.3.1-7
15.3.1-8a
15.3.1-17
Table 15.3.1-2
Figure 15.3.1-3
Figure 15.3.1-4

Insert Pages

15.3.1-7
15.3.1-8a
15.3.1-17
Table 15.3.1-2
Figure 15.3.1-3
Figure 15.3.1-4

neutron exposure of the vessel is computed to be 3.9×10^{19} neutrons/cm² for 40 years of operation at 1518 MWt and 80 percent load factor.⁽²⁾ This is the exposure expected at the inner reactor vessel wall. However, the neutron fluence used to predict the ΔRT_{NDT} shift is the one-quarter shell thickness neutron exposure. The relationship between fluence at the vessel ID wall and the fluence at the one-quarter and three-quarter shell thickness locations has been calculated and is presented in References 3 and 4 as a function of Effective Full Power Years. These curves are used to determine the fluence at the location of interest when the heatup and cooldown curves are to be revised.

Once the fluence is determined, the temperature shift used in revising the heatup and cooldown curves is obtained from the temperature versus fluence curves (the 0.25% Copper Base, 0.20% Weld line for Unit 1 and the 0.30% Copper base, 0.25% Weld line for Unit 2) also contained in References 3 and 4. These curves are used because they are based upon a substantial amount of experimental data and represent the results of the chemical analysis of the weld metal in the reactor vessels.

The heatup and cooldown curves presented in Figures 15.3.1-1 and 15.3.1-2 (Unit 1) and 15.3.1-3 and 15.3.1-4 (Unit 2) were calculated based on the above information and the methods of ASME Code Section III (1974 Edition) Appendix G, "Protection Against Nonductile Failure", and are applicable up to the operational exposure indicated on the figures. Corrections for possible instrumentation inaccuracies have been incorporated into these curves. The temperature correction is made by adding the temperature error (24°F, Unit 2) to the required temperature and the pressure correction is made by subtracting the pressure error (64 psi, Unit 2) from the required pressure. These corrections adjust the curves in the conservative direction.

scheduled removal dates will provide materials data representative of about 10%, 20%, 50%, 70%, and 90% of the actual reactor vessel exposure anticipated during the vessel life.

References

- (1) FSAR, Section 4.1.5
- (2) Westinghouse Electric Corporation, WCAP-8739
- (3) Westinghouse Electric Corporation, WCAP-8743
- (4) Westinghouse Electric Corporation, WCAP-8738

Unit 1 - Amendment No. 51

Unit 2 - Amendment No. 57

15.3.1-8a

F. MINIMUM CONDITIONS FOR CRITICALITY

Specification:

1. Except during low power physics tests, the reactor shall not be made critical unless the moderator temperature coefficient is negative.
2. In no case shall the reactor be made critical (other than for the purpose of low level physics tests) to the left of the reactor core criticality curve presented in Figures 15.3.1-1 for Unit 1 and 15.3.1-3 for Unit 2.
3. When the reactor coolant temperature is in a range where the moderator temperature coefficient is positive, the reactor shall be subcritical by an amount equal to or greater than the potential reactivity insertion due to depressurization.
4. The reactor shall be maintained subcritical by at least $1\% \frac{\Delta k}{k}$ until normal water level is established in the pressurizer.

Basis:

During the early part of the initial fuel cycle, the moderator temperature coefficient is calculated to be slightly positive at coolant temperatures below the power operating range. ⁽¹⁾⁽²⁾ The moderator coefficient at low temperatures will be most positive at the beginning of life of the initial fuel cycle, when the boron concentration in the coolant is the greatest. Later in the life of the fuel cycle, the boron concentrations in the coolant will be lower and the moderator coefficients will be either less positive or will be negative. At all times, the moderator coefficient is negative in the power operating range. ⁽¹⁾⁽²⁾ Suitable physics measurements of moderator coefficient of reactivity will be made as part of the startup program to verify analytic predictions.

Unit 1 - Amendment No. 51

Unit 2 - Amendment No. 57 15.3.1-17

TABLE 15.3.1-1

POINT BEACH NUCLEAR PLANT, UNIT NO. 2
REACTOR VESSEL SURVEILLANCE CAPSULE REMOVAL SCHEDULE

<u>Capsule Letter</u>	<u>Approximate Removal Date*</u>
V	November 1974 (actual)
T	March 1977 (actual)
R	April 1979 (actual)
P	March 1986
S	Spring 1991
N	Standby

*The actual removal dates will be adjusted to coincide with the closest scheduled plant refueling outage or major reactor plant shutdown.

Figure 15.3.1-3/PBMP Unit No. 2
 Heatup Limitations Applicable to
 14 Effective Full Power Years
 (Approximately September 1990)
 Instrument Error Included

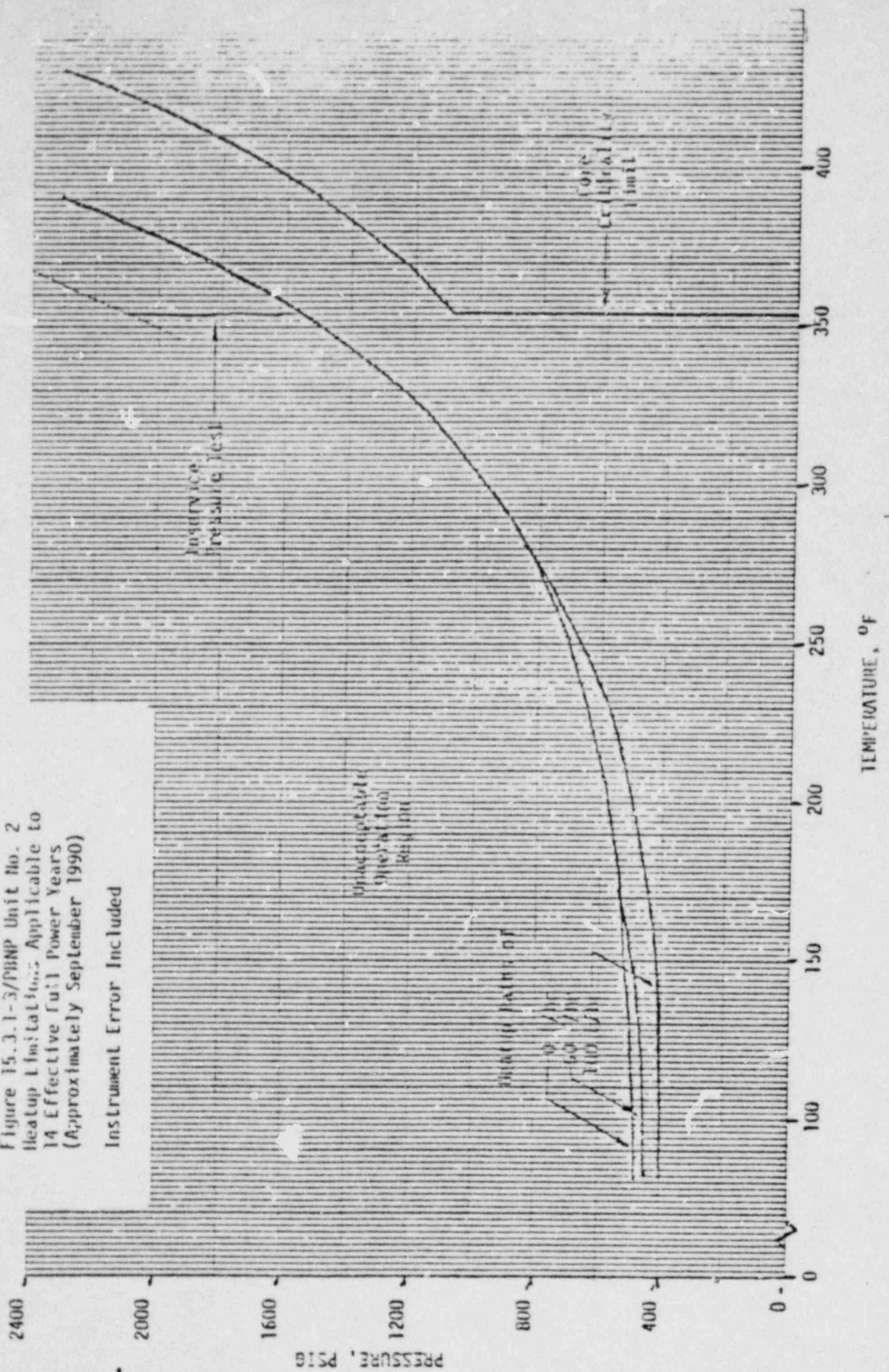


Figure 15.3.1-4/PBMF Unit No. 2
 Cooldown Limitations Applicable to
 14 Effective Full Power Years
 (Approximately September 1990)
 Instrument Error Include

