

REGULATORY DOCKET FILE COPY

Docket Nos. 50-266  
and 50-301

April 29 1980

Mr. Sol Burstein  
Executive Vice President  
Wisconsin Electric Power Company  
231 West Michigan Street  
Milwaukee, Wisconsin 53201

Dear Mr. Burstein:

The Commission has issued the enclosed Amendment No. 44 to Facility Operating License No. DPR-24 and Amendment No. 49 to Facility Operating License No. DPR-27 for the Point Beach Nuclear Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated November 2, 1979 as supplemented November 27, December 14, 21 and 31, 1979, and January 31, 1980.

The amendments authorize reactor operation at either 2250 or 2000 psia for Unit 2 and restrict operation to 2000 psia for Unit 1.

The Technical basis for our acceptance of operation of Unit 2 at a reactor coolant pressure of 2000 psia is contained in our Safety Evaluation Report attached to our Order Modifying Confirmatory Order of November 30, 1979 for Unit No. 1, which is incorporated herein by reference. In that evaluation, we concluded that operation of Unit No. 1 at 2000 psia should be required in order to reduce the differential pressure stress on the steam generator tubes. Whereas similar operation of Unit No. 2 would have the same effect, there is no safety reason for requiring 2000 psia operation for Unit No. 2 at this time because the condition of the steam generator tubes are acceptable for operation at either 2000 psia or the currently authorized 2250 psia. Therefore, this amendment authorizes operation of Unit No. 2 at either reactor coolant pressure.

Since the evaluation of operation at 2000 psia was completed and found acceptable for Unit No. 1, and since Unit No. 2 is identical, the amendment reducing pressure for Unit 2 does not involve significant new safety information of a type not considered by a previous Commission safety review of the facility. It does not involve a significant increase in the probability or consequences of an accident, does not involve a significant decrease in safety margin, and therefore does not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

OFFICE ▶	.....	.....	.....	.....	.....
SURNAME ▶	.....	.....	.....	.....	.....
DATE ▶	.....	.....	.....	.....	.....

Mr. Sol Burstein  
 Wisconsin Electric Power Company - 2 -

We have evaluated the potential for environmental impact of plant operation in accordance with the enclosed amendment for Unit 2. We have determined that the amendment does not authorize a change in effluent types or total amounts beyond that previously reviewed 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.

In addition, we have amended the Unit 1 Technical Specifications restricting the operations of Unit 1 to 2000 psia. This amendment incorporates into the Technical Specifications those requirements for the operation of Unit No. 1 embodied in our Order of January 3, 1980. This will bring the Technical Specifications up to date with respect to 2000 psia operation, and thereby make the Technical Specifications for both units as identical as possible to avoid confusion.

A copy of the Notice of Issuance is also enclosed.

Sincerely,

A. Schwencer, Chief  
 Operating Reactors Branch #1  
 Division of Operating Reactors

Enclosures:

1. Amendment No. 44 to DPR-24
2. Amendment No. 49 to DPR-27
3. Notice of Issuance

cc: w/enclosures  
 See next page

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SEE PREVIOUS YELLOW FOR ALL OTHER CONCURRENCE

OFFICE	DOR:ORB1 <i>aw</i>	DOR:ORB1			
SURNAME	PCWagner:jb	ASchwencer			
DATE	04/28/80	04/29/80			

Docket Nos. 50-266  
and 50-301

Mr. Sol Burstein  
Executive Vice President  
Wisconsin Electric Power Company  
231 West Michigan Street  
Milwaukee, Wisconsin 53201

Dear Mr. Burstein:

The Commission has issued the enclosed Amendment No. to Facility Operating License No. DPR-24 and Amendment No. to Facility Operating License No. DPR-27 for the Point Beach Nuclear Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated November 2, 1979 as supplemented November 27, December 14, 21 and 31, 1979, and January 31, 1980.

The amendments authorize reactor operation at either 2250 or 2000 psia for Unit 2 and restrict operation to 2000 psia for Unit 1.

The technical basis for our acceptance of operation of Unit 2 at a reactor coolant pressure of 2000 psia is contained in our Safety Evaluation Report attached to our Order Modifying Confirmatory Order of November 30, 1979 for Unit No. 1, which is incorporated herein by reference. In that evaluation, we concluded that operation of Unit No. 1 at 2000 psia should be required in order to reduce the differential pressure stress on the steam generator tubes. Whereas similar operation of Unit No. 2 would have the same effect, there is no safety reason for requiring 2000 psia operation for Unit No. 2 at this time because the condition of the steam generator tubes are acceptable for operation at either 2000 psia or the currently authorized 2250 psia. Therefore, this amendment authorizes operation of Unit No. 2 at either reactor coolant pressure.

Since the evaluation of operation at 2000 psia was completed and found acceptable for Unit No. 1, and since Unit No. 2 is identical, this amendment does not involve significant new safety information of a type not considered by a previous Commission safety review of the facility. It does not involve a significant increase in the probability or consequences of an accident, does not involve a significant decrease in safety margin, and therefore does not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

OFFICE ▶						
SURNAME ▶						
DATE ▶						

4-98-80

Mr. Sol Burstein  
 Wisconsin Electric Power Company - 2 -

We have evaluated the potential for environmental impact of plant operation in accordance with the enclosed amendment. We have determined that the amendment does not authorize a change in effluent types or total amounts beyond that previously reviewed 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.

In addition, we have amended the Unit 1 Technical Specifications restricting the operations of Unit 1 to 2000 psia. This amendment incorporates into the Technical Specifications those requirements for the operation of Unit No. 1 embodied in our Order of January 3, 1980. This will bring the Technical Specifications up to date with respect to 2000 psia operation, and thereby make the Technical Specifications for both units as identical as possible to avoid confusion.

A copy of the Notice of Issuance is also enclosed.

Sincerely,

A. Schwencer, Chief  
 Operating Reactors Branch #1  
 Division of Operating Reactors

Enclosures:

1. Amendment No. to DPR-24
2. Amendment No. to DPR-27
3. Notice of Issuance

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TERA	C. Trammell	Attorney, OELD
NSIC	P. Wagner	V. Noonan
NRR Reading	C. Parrish	R. Diggs
ORBT Reading	I&E (5)	
D. Eisenhut	C. Miles	

SEE PREVIOUS YELLOW FOR ALL OTHER CONCURRENCES

OFFICE	DOR:ORB1 <i>EW</i>	BBLD <i>EW</i>	DOR:ORB1	
SURNAME	PWagner:jb	CBarth <i>with concurrence</i>	ASchwencer	
DATE	04/14/80	04/15/80	04/ /80	

Docket No. 50-301

Mr. Sol Burstein  
Executive Vice President  
Wisconsin Electric Power Company  
231 West Michigan Street  
Milwaukee, Wisconsin 53201

Dear Mr. Burstein:

The Commission has issued the enclosed Amendment No. to Facility Operating License No. DPR-27 for the Point Beach Nuclear Plant, Unit No. 2. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated November 2, 1979 as supplemented November 27, December 14, 21 and 31, 1979, and January 31, 1980.

The amendment authorizes reactor operation at either 2250 or 2000 psia.

The technical basis for our acceptance of operation of Unit 2 at a reactor coolant pressure of 2000 psia is contained in our Safety Evaluation Report attached to our Order Modifying Confirmatory Order of November 30, 1979 for Unit No. 1, which is incorporated herein by reference. In that evaluation, we concluded that operation of Unit No. 1 at 2000 psia should be required in order to reduce the differential pressure stress on the steam generator tubes. Whereas similar operation of Unit No. 2 would have the same effect, there is no safety reason for requiring 2000 psia operation for Unit No. 2 at this time because the condition of the steam generator tubes are acceptable for operation at either 2000 psia or the currently authorized 2250 psia. Therefore, this amendment authorizes operation of Unit No. 2 at either reactor coolant pressure.

Since the evaluation of operation at 2000 psia was completed and found acceptable for Unit No. 1, and since Unit No. 2 is identical, this amendment does not involve significant new safety information of a type not considered by a previous Commission safety review of the facility. It does not involve a significant increase in the probability or consequences of an accident, does not involve a significant decrease in safety margin, and therefore does not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

4-11-80

OFFICE						
SURNAME						
DATE						

Mr. Sol Burstein  
 Wisconsin Electric Power Company - 2 -

We have evaluated the potential for environmental impact of plant operation in accordance with the enclosed amendment. We have determined that the amendment does not authorize a change in effluent types or total amounts beyond that previously reviewed 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.

A copy of the Notice of Issuance is also enclosed.

In addition, we have included Technical Specification replacement pages for Unit No. 1. These pages incorporate into the Technical Specifications those requirements for the operation of Unit No. 1 embodied in our Order of January 3, 1980. This will bring the Technical Specifications up to date with respect to 2000 psia operation, and thereby make the Technical Specifications for both units as identical as possible to avoid confusion.

Sincerely,

A. Schwencer, Chief  
 Operating Reactors Branch #1  
 Division of Operating Reactors

- Enclosures:
1. Amendment No. to DPR-27
  2. Notice of Issuance
  3. Technical Specification replacement pages for DPR-24

cc: w/enclosures  
 See next page

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- Docket File 50-301 C. Trammell
- NRC PDR C. Parrish
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- ORB1 Reading B. Jones (4)
- H. Denton C. Miles
- D. Eisenhut R. Diggs
- R. Tedesco
- W. Gammill
- B. Grimes
- A. Schwencer
- V. Noonan
- A. Schwencer

*with corrections  
 4-4-80  
 csath*

*4-11-80*

*12459/12460*

OFFICE	DOR:ORB1	DOR:ORB1	DOR:ORB1	DOR:EB	DOR:AD:ORP	OELD
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

April 29, 1980

Docket Nos. 50-266  
and 50-301

Mr. Sol Burstein  
Executive Vice President  
Wisconsin Electric Power Company  
231 West Michigan Street  
Milwaukee, Wisconsin 53201

Dear Mr. Burstein:

The Commission has issued the enclosed Amendment No. 44 to Facility Operating License No. DPR-24 and Amendment No. 49 to Facility Operating License No. DPR-27 for the Point Beach Nuclear Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated November 2, 1979 as supplemented November 27, December 14, 21 and 31, 1979, and January 31, 1980.

The amendments authorize reactor operation at either 2250 or 2000 psia for Unit 2 and restrict operation to 2000 psia for Unit 1.

The technical basis for our acceptance of operation of Unit 2 at a reactor coolant pressure of 2000 psia is contained in our Safety Evaluation Report attached to our Order Modifying Confirmatory Order of November 30, 1979 for Unit No. 1, which is incorporated herein by reference. In that evaluation, we concluded that operation of Unit No. 1 at 2000 psia should be required in order to reduce the differential pressure stress on the steam generator tubes. Whereas similar operation of Unit No. 2 would have the same effect, there is no safety reason for requiring 2000 psia operation for Unit No. 2 at this time because the condition of the steam generator tubes are acceptable for operation at either 2000 psia or the currently authorized 2250 psia. Therefore, this amendment authorizes operation of Unit No. 2 at either reactor coolant pressure.

Since the evaluation of operation at 2000 psia was completed and found acceptable for Unit No. 1, and since Unit No. 2 is identical, the amendment reducing pressure for Unit 2 does not involve significant new safety information of a type not considered by a previous Commission safety review of the facility. It does not involve a significant increase in the probability or consequences of an accident, does not involve a significant decrease in safety margin, and therefore does not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

Mr. Sol Burstein  
Wisconsin Electric Power Company - 2 -

April 29, 1980

We have evaluated the potential for environmental impact of plant operation in accordance with the enclosed amendment for Unit 2. We have determined that the amendment does not authorize a change in effluent types or total amounts beyond that previously reviewed 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.

In addition, we have amended the Unit 1 Technical Specifications restricting the operations of Unit 1 to 2000 psia. This amendment incorporates into the Technical Specifications those requirements for the operation of Unit No. 1 embodied in our Order of January 3, 1980. This will bring the Technical Specifications up to date with respect to 2000 psia operation, and thereby make the Technical Specifications for both units as identical as possible to avoid confusion.

A copy of the Notice of Issuance is also enclosed.

Sincerely,



A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Enclosures:

1. Amendment No. 44 to DPR-24
2. Amendment No. 49 to DPR-27
3. Notice of Issuance

cc: w/enclosures  
See next page

Mr. Sol Burstein  
Wisconsin Electric Power Company - 3 - April 29, 1980

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Federal Activities Branch  
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230 S. Dearborn Street  
Chicago, Illinois 60604



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. 44  
License No. DPR-24

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - B. 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;
  - C. 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
  - D. 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. 44, 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



A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 29, 1980

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 44 TO FACILITY OPERATING LICENSE NO. DPR-24

DOCKET NO. 50-266

Revise Appendix A as follows:

Remove Pages

15.2.3-2

15.3.1-1

15.3.1-2

15.3.1-3

15.4.3-1

Insert Pages

15.2.3-2

15.3.1-1

15.3.1-2

15.3.1-3

15.3.1-19

15.4.3-1

(3) Low pressurizer pressure -  $\geq 1790$  psig for operation at 2000 psia primary system pressure

(4) Overtemperature  $\Delta T$

$$\leq \Delta T_o (K_1 - K_2(T-T') \frac{(1+\tau_1 S)}{1+\tau_2 S}) + K_3 (P-P') - f(\Delta I)$$

where

$\Delta T_o$  = indicated  $\Delta T$  at rated power,  $^{\circ}F$

$T$  = average temperature,  $^{\circ}F$

$T'$  = 574.2  $^{\circ}F$

$P$  = pressurizer pressure, psig

$P'$  = 2235 psig

$K_1 \leq 1.30$  for operation at 2000 psia primary system pressure

$K_2 = 0.0150$

$K_3 = 0.000791$

$\tau_1 = 25$  sec

$\tau_2 = 3$  sec

and  $f(\Delta I)$  is an even function of the indicated difference between top and bottom detectors of the power-range nuclear ion chambers; with gains to be selected based on measured instrument response during plant startup tests, where  $q_t$  and  $q_b$  are the percent power in the top and bottom halves of the core respectively, and  $q_t + q_b$  is total core power in percent of rated power, such that:

(a) for  $q_t - q_b$  within -17, +9 percent,  $f(\Delta I) = 0$ .

(b) for each percent that the magnitude of  $q_t - q_b$  exceeds +9 percent the  $\Delta T$  trip set point shall be automatically reduced by an equivalent of two percent of rated power.

## 15.3 LIMITING CONDITIONS FOR OPERATION

### 15.3.1 REACTOR COOLANT SYSTEM

#### Applicability

Applies to the operating status of the Reactor Coolant System.

#### Objective

To specify those limiting conditions for operation of the Reactor Coolant System which must be met to ensure safe reactor operation.

#### Specification

##### A. OPERATIONAL COMPONENTS

###### Specification:

###### 1. Coolant Pumps

- a. At least one reactor coolant pump or the residual heat removal system shall be in operation when a reduction is made in the boron concentration of the reactor coolant.
- b. When the reactor is critical and above 1% thermal power, except for natural circulation tests, at least one reactor coolant pump shall be in operation.
- c. (1) Reactor power shall not be maintained above 10% of rated power unless both reactor coolant pumps are in operation.  
(2) If either reactor coolant pump ceases operating, immediate power reduction shall be initiated under administrative control as necessary to reduce power to less than 10% of rated power.

###### 2. Steam Generator

- a. One steam generator shall be operable whenever the average reactor coolant temperature is above 350°F.

### 3. Safety Valves

- a. At least one pressurizer safety valve shall be operable whenever the reactor head is on the vessel.
- b. Both pressurizer safety valves shall be operable whenever the reactor is critical.

#### Basis:

When the boron concentration of the reactor coolant system is to be reduced the process must be uniform to prevent sudden reactivity changes in the reactor. Mixing of the reactor coolant will be sufficient to maintain a uniform boron concentration if at least one reactor coolant pump or one residual heat removal pump is running while the change is taking place. The residual heat removal pump will circulate the primary system volume in approximately one half hour. The pressurizer is of little concern because of the low pressurizer volume and because pressurizer boron concentration normally will be higher than that of the rest of the reactor coolant.

Part 1 of the specification requires that a sufficient number of reactor coolant pumps be operating to provide core cooling in the event that a loss of flow occurs. The flow provided in each case will keep DNBR well above 1.30 as discussed in FFDSAR Section 14.1.9. Therefore, cladding damage and release of fission products to the reactor coolant will not occur. Heat transfer analyses (1) show that reactor heat equivalent to 10% of rated power can be removed with natural circulation only; hence, the specified upper limit of 1% rated power without operating pumps provides a substantial safety factor.

Each of the pressurizer safety valves is designed to relieve 288,000 lbs. per hr. of saturated steam at set point. Below 350°F and 350 psig in the reactor coolant system, the residual heat removal system can remove decay heat and thereby control system temperature and pressure. If no residual heat is removed by any of the means available the amount of steam which could be generated at safety valve relief pressure would be less than half the valves' capacity. One valve therefore provides adequate defense against over-pressurization. Part 1 c(2) permits an orderly reduction in power if a reactor coolant pump is lost during operation between 10% and 50% of rated power. Above 50% power, an automatic reactor trip will occur if either pump is lost. The power-to-flow ratio will be maintained equal to or less than 1.0 which ensures that the minimum DNB ratio increases at lower flow since the maximum enthalpy rise does not increase above its normal full-flow maximum value.(2)

#### Reference

(1) FSAR Section 14.1.6

(2) FSAR Section 7.2.3

## 6. OPERATIONAL LIMITATIONS

The following DNB related parameters shall be maintained within the limits shown during Rated Power operation:

1.  $T_{AVG}$  shall be maintained at or below 578°F.
2. Reactor coolant system pressure shall be maintained:  
  
     $\geq 1955$  psig during operation at 2000 psia.
3. Reactor Coolant System Total Flow Rate  $\geq 178,000$  gpm.

### Basis:

Although the operational limitations above require reactor coolant system total flow be maintained above a minimum rate, no direct means of measuring absolute flow during operation exist. However, during initial startup reactor coolant flow was measured and correlated to core  $\Delta T$ . Therefore monitoring of  $\Delta T$  may be used to verify the above minimum flow requirement is met. If a change in steady state full power  $\Delta T$  greater than 3°F is observed, the actual flow measurements will be taken.

### 15.4.3 PRIMARY SYSTEM TESTING FOLLOWING OPENING

#### Applicability

Applies to test requirements for primary system integrity.

#### Objective

To specify tests for primary system integrity after the system is closed following normal opening, modification or repair.

#### Specification

- a) When the primary system is closed after it has been opened, the system will be leak tested at not less than 2085 psig for operation at 2000 psia primary system pressure.
- b) When primary system modifications or repairs have been made which involved new strength welds on components greater than 2 in. diameter, the new welds will receive both a surface and 100% volumetric non-destructive examination.
- c) When primary system modifications or repairs have been made which involve new strength welds on components 2 in. diameter or smaller, the new welds will receive a surface examination.

#### Basis

For normal opening the integrity of the system, in terms of strength, is unchanged. If the system does not leak at 2085 psig (operating pressure + 100 psi: + 100 psi is normal system pressure fluctuation), it should be leak tight during normal operation at 2000 psia.



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. 49  
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 November 2, 1979, as supplemented November 27, December 14, 21 and 31, 1979 and January 31, 1980, 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-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. 49, 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



A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 29, 1980

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 49 TO FACILITY OPERATING LICENSE NO. DPR-27

DOCKET NO. 50-301

Revise Appendix A as follows:

Remove Pages

15.2.3-2  
15.3.1-1  
15.3.1-2  
15.3.1-3  
  
15.4.3-1

Insert Pages

15.2.3-2  
15.3.1-1  
15.3.1-2  
15.3.1-3  
15.3.1-19  
15.4.3-1

- \* (3) Low pressurizer pressure -  $\geq 1865$  psig for operation at 2250 psia primary system pressure  
 $\geq 1790$  psig for operation at 2000 psia primary system pressure

(4) Overtemperature  $\Delta T$

$$\underline{\Delta T_o} (K_1 - K_2(T-T')) \frac{(1+\tau_1 S)}{1+\tau_2 S} + K_3 (P-P') - f(\Delta I)$$

where

$\Delta T_o$  = indicated  $\Delta T$  at rated power,  $^{\circ}F$

$T$  = average temperature,  $^{\circ}F$

$T'$  = 574.2  $^{\circ}F$

$P$  = pressurizer pressure, psig

$P'$  = 2235 psig

\*  $K_1$   $\leq 1.117$  for operation at 2250 psia primary system pressure  
 $\leq 1.30$  for operation at 2000 psia primary system pressure

$K_2$  = 0.0150

$K_3$  = 0.000791

$\tau_1$  = 25 sec

$\tau_2$  = 3 sec

and  $f(\Delta I)$  is an even function of the indicated difference between top and bottom detectors of the power-range nuclear ion chambers; with gains to be selected based on measured instrument response during plant startup tests, where  $q_t$  and  $q_b$  are the percent power in the top and bottom halves of the core respectively, and  $q_t + q_b$  is total core power in percent of rated power, such that:

- (a) for  $q_t - q_b$  within -17, +9 percent,  $f(\Delta I) = 0$ .
- (b) for each percent that the magnitude of  $q_t - q_b$  exceeds +9 percent the  $\Delta T$  trip set point shall be automatically reduced by an equivalent of two percent of rated power.

\*Appropriate safety analyses shall be performed prior to shifting operation from one primary system pressure to the other.

## 15.3 LIMITING CONDITIONS FOR OPERATION

### 15.3.1 REACTOR COOLANT SYSTEM

#### Applicability

Applies to the operating status of the Reactor Coolant System.

#### Objective

To specify those limiting conditions for operation of the Reactor Coolant System which must be met to ensure safe reactor operation.

#### Specification

##### A. OPERATIONAL COMPONENTS

###### Specification:

###### 1. Coolant Pumps

- a. At least one reactor coolant pump or the residual heat removal system shall be in operation when a reduction is made in the boron concentration of the reactor coolant.
- b. When the reactor is critical and above 1% thermal power, except for natural circulation tests, at least one reactor coolant pump shall be in operation.
- c. (1) Reactor power shall not be maintained above 10% of rated power unless both reactor coolant pumps are in operation.  
(2) If either reactor coolant pump ceases operating, immediate power reduction shall be initiated under administrative control as necessary to reduce power to less than 10% of rated power.

###### 2. Steam Generator

- a. One steam generator shall be operable whenever the average reactor coolant temperature is above 350°F.

### 3. Safety Valves

- a. At least one pressurizer safety valve shall be operable whenever the reactor head is on the vessel.
- b. Both pressurizer safety valves shall be operable whenever the reactor is critical.

#### Basis:

When the boron concentration of the reactor coolant system is to be reduced the process must be uniform to prevent sudden reactivity changes in the reactor. Mixing of the reactor coolant will be sufficient to maintain a uniform boron concentration if at least one reactor coolant pump or one residual heat removal pump is running while the change is taking place. The residual heat removal pump will circulate the primary system volume in approximately one half hour. The pressurizer is of little concern because of the low pressurizer volume and because pressurizer boron concentration normally will be higher than that of the rest of the reactor coolant.

Part 1 of the specification requires that a sufficient number of reactor coolant pumps be operating to provide core cooling in the event that a loss of flow occurs. The flow provided in each case will keep DNBR well above 1.30 as discussed in FFDSAR Section 14.1.9. Therefore, cladding damage and release of fission products to the reactor coolant will not occur. Heat transfer analyses (1) show that reactor heat equivalent to 10% of rated power can be removed with natural circulation only; hence, the specified upper limit of 1% rated power without operating pumps provides a substantial safety factor.

Each of the pressurizer safety valves is designed to relieve 288,000 lbs. per hr. of saturated steam at set point. Below 350°F and 350 psig in the reactor coolant system, the residual heat removal system can remove decay heat and thereby control system temperature and pressure. If no residual heat is removed by any of the means available the amount of steam which could be generated at safety valve relief pressure would be less than half the valves' capacity. One valve therefore provides adequate defense against over-pressurization. Part 1 c(2) permits an orderly reduction in power if a reactor coolant pump is lost during operation between 10% and 50% of rated power. Above 50% power, an automatic reactor trip will occur if either pump is lost. The power-to-flow ratio will be maintained equal to or less than 1.0 which ensures that the minimum DNB ratio increases at lower flow since the maximum enthalpy rise does not increase above its normal full-flow maximum value.(2)

#### Reference

(1) FSAR Section 14.1.6

(2) FSAR Section 7.2.3

**G. OPERATIONAL LIMITATIONS**

The following DNB related parameters shall be maintained within the limits shown during Rated Power operation:

1.  $T_{AVG}$  shall be maintained at or below 578°F.
- \*2. Reactor coolant system pressure shall be maintained:  
     $\geq$  2205 psig during operation at 2250 psia or,  
     $\geq$  1955 psig during operation at 2000 psia.
3. Reactor Coolant System Total Flow Rate  $\geq$  178,000 gpm.

**Basis:**

Although the operational limitations above require reactor coolant system total flow be maintained above a minimum rate, no direct means of measuring absolute flow during operation exist. However, during initial startup reactor coolant flow was measured and correlated to core  $\Delta T$ . Therefore monitoring of  $\Delta T$  may be used to verify the above minimum flow requirement is met. If a change in steady state full power  $\Delta T$  greater than 3°F is observed, the actual flow measurements will be taken.

\*See footnote, page 15.2.3-2

### 15.4.3 PRIMARY SYSTEM TESTING FOLLOWING OPENING

#### Applicability

Applies to test requirements for primary system integrity.

#### Objective

To specify tests for primary system integrity after the system is closed following normal opening, modification or repair.

#### Specification

- a) When the primary system is closed after it has been opened, the system will be leak tested at:
  - 1) Not less than 2335 psig for operation at 2250 psia primary system pressure, or
  - 2) Not less than 2085 psig for operation at 2000 psia primary system pressure.
- b) When primary system modifications or repairs have been made which involved new strength welds on components greater than 2 in. diameter, the new welds will receive both a surface and 100% volumetric non-destructive examination.
- c) When primary system modifications or repairs have been made which involve new strength welds on components 2 in. diameter or smaller, the new welds will receive a surface examination.

#### Basis

For normal opening the integrity of the system, in terms of strength, is unchanged. If the system does not leak at 2335 psig (operating pressure + 100 psi: + 100 psi is normal system pressure fluctuation), it should be leak tight during normal operation at 2250 psia. If the system does not leak at 2085 it should be leak tight during normal operation at 2000 psia.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-266 AND 50-301WISCONSIN ELECTRIC POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY  
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 44 to Facility Operating License No. DPR-24, and Amendment No. 49 to Facility Operating License No. DPR-27 issued to Wisconsin Electric Power Company (the licensee), which revised Technical Specifications for operation of Point Beach Nuclear Plant, Unit Nos. 1 and 2 (the facilities) located in the Town of Two Creeks, Manitowoc County, Wisconsin. The amendments are effective as of the date of issuance.

The amendments authorize reactor operation at either 2250 or 2000 psia for Point Beach Unit 2, and restricts the operation of Point Beach Unit 1 to 2000 psia as required by the Order issued on January 3, 1980.

The application for the amendments 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 amendments. Prior public notice of these amendments is not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant

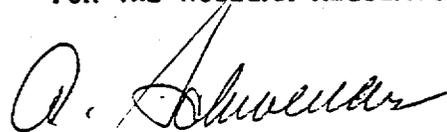
- 2 -

to 10 CFR §1.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated November 2, 1979, as supplemented November 27, December 14, 21, and 31, 1979 and January 31, 1980, (2) Amendment Nos. 44 and 49 to License Nos. DPR-24 and DPR-27, and (3) the Commission's related Safety Evaluation Report attached to the Order Modifying the Confirmatory Order of November 30, 1979 for Point Beach Unit No. 1, dated January 3, 1980. All of 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 Document Department, University of Wisconsin, Stevens Point Library, Stevens Point, Wisconsin 54451. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 29th day of April, 1980.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors