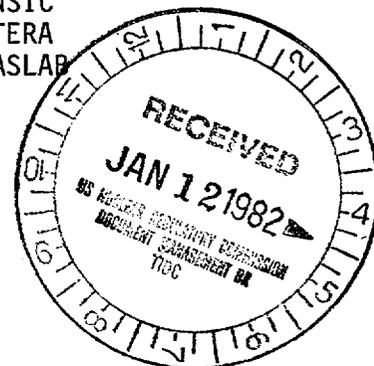


JAN 6 1982

Docket Nos. 50-266
50-301

Distribution:

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L. Schneider	
STS Group	
ACRS (10)	



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. 58 to Facility Operating License No. DPR-24 and Amendment No. 62 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 December 3, 1981 as modified by letters dated December 30, 1981, 1981.

These amendments revise the voltage setpoint and associated time delay of the degraded grid undervoltage relay.

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

Sincerely,

Original signed by:

Timothy G. Colburn, Project Manager
Operating Reactors Branch #3
Division of Licensing

Enclosures:

1. Amendment No. 58 to DPR-24
2. Amendment No. 62 to DPR-27
3. Safety Evaluation
4. Notice of Issuance

cc w/encls:
See next page

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P PDR

OFFICE	DL:ORB#3	DL:ORB#3	ORAB	DL:ORB#3	DL:OR	OELD	DL:ORAB
SURNAME	P. Kreutzer	T. Colburn	G. Holahan	R. Clark	M. Novak	R. Bachmann	G. Holahan
DATE	1/21/82	12/30/81	12/3/81	1/10/82	1/14/82	1/14/82	1/14/82



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

DISTRIBUTION:
Docket File
ORB#3 Rdg
PMKreutzer

JAN 6 1982

Docket No. 50-266 and 50-301

Docketing and Service Section
Office of the Secretary of the Commission

SUBJECT: WISCONSIN ELECTRIC POWER COMPANM, Point Beach Nuclear Plant,
Unit Nos. 1 and 2.

Two signed originals of the Federal Register Notice identified below are enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (12) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Availability of Applicant's Environmental Report.
- Notice of Proposed Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).
- Other: Amendment Nos. 58 and 62
Referenced documents have been provided PDR.

Division of Licensing
Office of Nuclear Reactor Regulation

Enclosure:
As Stated

OFFICE →	ORB#3:DL				
SURNAME →	PMKreutzer/ph				
DATE →	1/6/82				

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Wisconsin Electric Power Company

cc:

Mr. Bruce Churchill, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N. W.
Washington, D. C. 20036

Mr. William Guldemon
USNRC Resident Inspectors Office
6612 Nuclear Road
Two Rivers, Wisconsin 54241

Joseph Mann Library
1516 Sixteenth Street
Two Rivers, Wisconsin 54241

Mr. Glenn A. Reed, Manager
Nuclear Operations
Wisconsin Electric Power Company
Point Beach Nuclear Plant
6610 Nuclear Road
Two Rivers, Wisconsin 54241

Mr. Gordon Blaha
Town Chairman
Town of Two Creeks
Route 3
Two Rivers, Wisconsin 54241

Ms. Kathleen M. Falk
General Counsel
Wisconsin's Environmental Decade
114 N. Carroll Street
Madison, Wisconsin 53703

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

cc w/enclosure(s) and incoming
dtd: 12/3/81, 12/30/81

Chairman
Public Service Commission of Wisconsin
Hills Farms State Office Building
Madison, Wisconsin 53702



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. 58
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 December 3, 1981 as modified by letter dated December 30, 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:

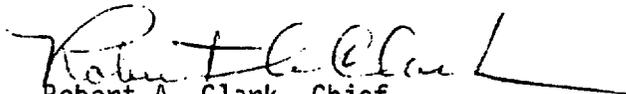
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(B) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 58, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective five days from the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


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

Attachments:
Changes to the Technical
Specifications

Date of Issuance: January 6, 1982

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 58 TO FACILITY OPERATING LICENSE NO. DPR-24

DOCKET NO. 50-266

Revise Appendix A as follows:

Remove Page

Table 15.3.5-1
(continued) page 2 of 2

Insert Page

Table 15.3.5-1
(continued) page 2 of 2

TABLE 15.3.5-1 (Continued)
(Page 2 of 2)

<u>NO.</u>	<u>FUNCTIONAL UNIT</u>	<u>CHANNEL</u>	<u>SETTING LIMIT</u>
9.	Degraded Voltage (4.16 KV)	Disconnection of affected bus from offsite power	≥ 3762 volts $\pm 2\%$ Time delay: less than 30 sec at 0-100% of voltage setting**
10.	Loss of Voltage		
	a. 4.16 KV	Disconnection of affected bus from offsite power Start Diesel	a. 2450 volts $\pm 3\%$ Time delay: 0.3 sec. $\pm 5\%$ at 0 volts 1.2 sec. $\pm 5\%$ at 90% of voltage setting.
	b. 480 V	Load shedding	b. 256 volts $\pm 3\%$ Time delay: 0.75 sec. $\pm 5\%$ at 0 volts 3.5 sec. $\pm 15\%$ at 90% of voltage setting

** Within 6 months of the effective date of this amendment (January 11, 1982) the licensee will submit further justification for this voltage setpoint and time delay or a proposed Technical Specification change for Units 1 and 2.



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. 62
License No. DPR-27

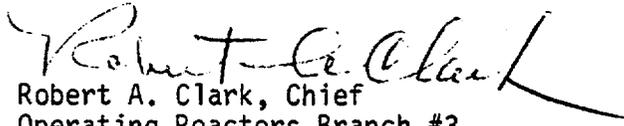
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Wisconsin Electric Power Company (the licensee) dated December 3, 1981 as modified by letter dated December 30, 1981, complies with the standards and requirements of the Atomic Energy Act of 1954, 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-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. 62, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective upon return to power from the Spring 1982 refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION


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

Attachments:
Changes to the Technical
Specifications

Date of Issuance: January 6, 1982

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 62 TO FACILITY OPERATING LICENSE NO. DPR-27

DOCKET NO. 50-301

Revise Appendix A as follows:

Remove Page

Table 15.3.5-1
(continued) page 2 of 2

Insert Page

Table 15.3.5-1
(continued) page 2 of 2

TABLE 15.3.5-1 (Continued)
(Page 2 of 2)

<u>NO.</u>	<u>FUNCTIONAL UNIT</u>	<u>CHANNEL</u>	<u>SETTING LIMIT</u>
9.	Degraded Voltage (4.16 KV)	Disconnection of affected bus from offsite power	> 3762 volts \pm 2% Time delay: less than 30 sec at 0-100% of voltage setting**
10.	Loss of Voltage		
	a. 4.16 KV	Disconnection of affected bus from offsite power Start Diesel	a. 2450 volts \pm 3% Time delay: 0.3 sec. \pm 5% at 0 volts 1.2 sec. \pm 5% at 90% of voltage setting
	b. 480 V	Load shedding	b. 256 volts \pm 3% Time delay: 0.75 sec. \pm 5% at 0 volts 3.5 sec. \pm 15% at 90% of voltage setting

** This limit is effective upon installation of the associated relays but in no case later than upon return to power from the Spring 1982 refueling outage.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 58 TO FACILITY OPERATING LICENSE NO. DPR-24
AND AMENDMENT NO. 62 TO FACILITY OPERATING LICENSE NO. DPR-27

WISCONSIN ELECTRIC POWER COMPANY

POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-266 AND 50-301

Introduction

By letter dated December 3, 1981 (Reference 1), Wisconsin Electric Power Company requested a revision to Technical Specification table 15.3.5-1 to change the setpoint of degraded grid voltage protection relays. This revision would change the time delay for tripping the degraded off-site power source from 13.6 seconds + 5% to less than 60 seconds at 0-95% of voltage setting of 3675 volts \pm 2% (88% of 4160 volts). An interim approval of this request was granted to Wisconsin Electric Power Company by our letter dated December 4, 1981 as supplemented by amendments 57 and 61 issued December 21, 1981 subject to a satisfactory response to our questions. The licensee has responded to our questions in his letter dated December 30, 1981 (Reference 2) and has requested a change to the voltage setpoint and associated time delay from 3675 volts + 2% to 3762 volts \pm 2% (90.4% of 4160 volts) with a time delay of 30 seconds.

Background

The licensee's degraded grid voltage protection relay setpoint of 13.6 seconds + 5% time delay for 88% of 4160 volts was initially approved by our safety evaluation report dated January 30, 1981. Subsequent to the installation of these relays, the licensee started a reactor coolant pump during the plant start-up and caused the off-site source to trip. The high starting current of a reactor coolant pump degraded the bus voltage below the relay setpoint value for a period longer than 13.6 seconds, tripping the degraded grid voltage protection relay. The voltage recovery above the setpoint takes approximately 22.5 seconds.

Originally, the 88% of 4160 volts setpoint was considered adequate to protect motors of 90% voltage rating because of its service factor. In response to our questions, the licensee has proposed to raise this setpoint to 3762 volts \pm 2% (minimum 88.6% of 4160 volts).

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Discussion and Evaluation

It is undesirable to have the degraded grid voltage relays operated for normal plant evolutions and such was never intended by the staff. The proposed time delay of 30 seconds is sufficient to ensure that voltage drops caused by routine starting of plant equipment will not cause these relays to trip.

At Point Beach Units, the undervoltage protection for class 1E equipment is provided by the following sets of undervoltage relays that disconnect the off-site source of degraded power from the class 1E buses.

- (1) Loss of voltage relays arranged in 1-out-of-2 logic on each redundant 4160 V class 1E bus and trips the respective bus.
- (2) Degraded voltage relays arranged in 2-out-of-3 logic on each redundant 4160 V class 1E bus and trips the respective bus.
- (3) Single non 1E relay mounted in non 1E switchgear and trips off-site source to both 4160 V class 1E buses.

(a) Existing Setpoints of the Undervoltage Relays

- (1) Loss of voltage relays are set at 2450 volts + 3% (minimum 2450 - 73.5 = 57% of 4160 volts) to trip in approximately 1.2 seconds at 90% of voltage setting.
- (2) Degraded voltage relays are set at > 3675 volts + 2% (minimum 3675 - 73.5 = 86.6% of 4160 volts) to trip in approximately 13.6 seconds at 95% of voltage setting.
- (3) Single non 1E relay is set to trip in 13.6 seconds at 78% of 4160 volts and takes 2.6 seconds to trip at 0 volts.

(b) Revised Setpoints of the Undervoltage Relays

Degraded voltage relays setpoint is proposed to be set at 3762 volts + 2% (minimum 3762 - 75 = 88.6% of 4160 volts) to trip in less than 30 seconds.

(c) Equipment Ratings (Reference 2 and 4)

- (1) Motors powered by the 4160 volts bus are rated at 4000 volts and those powered by the 480 volts bus are rated at 460 volts.
- (2) All safety related motors are rated to start and accelerate their load with 80% terminal voltage, run continuously at 90% to 110% of terminal voltage and have a one minute rating of 75% terminal voltage, i.e., 72% of respective bus voltage.

- (3) Pick up and drop out ratings of a representative starter are 72.5% and 52.5% of nominal bus voltage, i.e., 480 volts.
- (4) Motors have a service factor of 1.15.

(d) Minimum Expected Voltage on Class 1E Equipment (Reference 2)

- (1) 4kV motors have 95.9% voltage on their terminals.
- (2) 460 V equipments have 91% voltage on their terminals.

The evaluation of voltage relay settings, equipment ratings and minimum expected voltages on equipment terminal indicate that the 4kV motors are adequately protected for bus voltages above 75% of nominal. However, with the 88.6% of 4160 volts setpoint of degraded voltage relay, the 460 volt motors could be continuously running with terminal voltages as low as 87% of their voltage rating (3% below the name plate rating).

Also, if the bus voltages degrade to and stay at some value between 72% of nominal and the trip setting of loss of voltage relays, the running motors may stall and contactors may not be able to pick up during the 30 seconds fixed time delay provided with the degraded voltage relays. This range could adequately be protected if proper functioning of the non-class 1E relay, set at 78% of nominal bus voltage, is guaranteed, i.e., the relays made class 1E or the setpoint of loss of voltage relays could be raised above the stalling motor voltages.

The licensee has committed to evaluate various options to provide adequate protection of all class 1E equipment from undervoltages including the voltage range discussed above. The licensee has requested a period of six months for this evaluation and submittal of an acceptable modification to the technical specification.

We have determined that during the interim period of six months there is minimal likelihood that the non class 1E relay will be needed and will not function, or that the above mentioned undervoltages will render class 1E equipment inoperable or excessively overstressed. We therefore, find this technical specification change to be acceptable for the interim period pending the licensee's further evaluation and submittal.

Environmental Consideration

We have determined that the amendments do 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 amendments involve 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 these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: January 6, 1982

T. Colburn
G. Holahan

References

1. Wisconsin Electric Power Company letter (C.W. Fay) to the NRC (H. Denton), dated December 3, 1981.
2. Wisconsin Electric Power Company letter (C.W. Fay) to the NRC (H. Denton), dated December 30, 1981.
3. Memorandum for Paul S. Check, DSI to Tom Novak, DL, dated January 30, 1981.
4. Wisconsin Electric Power Company letter (C.W. Fay) to the NRC (H. Denton), dated January 17, 1980.

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

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 58 to Facility Operating License No. DPR-24, and Amendment No. 62 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 five days from the date of issuance for Unit 1 and upon return to power from the Spring 1982 refueling outage for Unit 2.

The amendments revise the degraded grid undervoltage relay setpoint and associated time delay.

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 was 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 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.

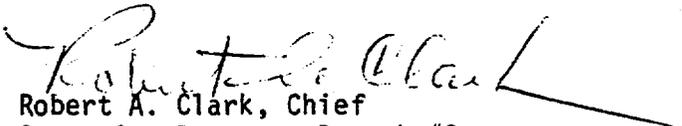
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For further details with respect to this action, see (1) the application for amendments dated December 3, 1981 as modified by letter dated December 30, 1981, (2) Amendment Nos. 58 and 62 to License Nos. DPR-24 and DPR-27, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D. C. 20555, and at the Joseph Mann Library, 1516 16th Street, Two Rivers, Wisconsin 54241. 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 Licensing.

Dated at Bethesda, Maryland, this 6th day of January, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION


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