

December 6, 1993

Docket Nos. 50-266
and 50-301

Mr. Robert E. Link, Vice President
Nuclear Power Department
Wisconsin Electric Power Company
231 West Michigan Street, Room P379
Milwaukee, Wisconsin 53201

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Dear Mr. Link:

SUBJECT: AMENDMENT NOS. 143 AND 147 TO FACILITY OPERATING LICENSE NOS. DPR-24
AND DPR-27 (TACS M82869 AND M82887)

The Commission has issued the enclosed Amendment Nos. 143 and 147 to Facility Operating License Nos. DPR-24 and DPR-27 for the Point Beach Nuclear Plant, Unit Nos. 1 and 2. The amendments revise the Technical Specifications in response to your application dated February 21, 1992, and supplemented by letters dated April 16, 1992 and March 4, 1993.

These amendments revise Technical Specification 15.3.4, "Steam and Power Conversion System," to include limiting conditions for operation (LCOs) for the main steam stop valves (MSSVs) and the main steam non-return check valves (NRCVs). They also revise Technical Specification 15.4.7, "Main Steam Stop Valves," which specifies how the main steam stop valve tests are performed. This section is retitled, "Main Steam System Valves." Other related changes have been made.

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

Sincerely,

Original signed by Allen G. Hansen
for Anthony T. Gody, Jr., Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 143 to DPR-24
2. Amendment No. 147 to DPR-27
3. Safety Evaluation

cc w/enclosures:
See next page

LA:PDIII-3:DRPW
MRushbrook
11/10/93

PM:PDIII-3:DRPW
ATGody, Jr./atg/bj
11/19/93

D:PDIII-3:DRPW
JHannon
11/19/93

OGC-OWF
11/13/93

Document Name: G:PTBEACH\PBM82869.AMD

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 6, 1993

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and 50-301

Mr. Robert E. Link, Vice President
Nuclear Power Department
Wisconsin Electric Power Company
231 West Michigan Street, Room P379
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These amendments revise Technical Specification 15.3.4, "Steam and Power Conversion System," to include limiting conditions for operation (LCOs) for the main steam stop valves (MSSVs) and the main steam non-return check valves (NRCVs). They also revise Technical Specification 15.4.7, "Main Steam Stop Valves," which specifies how the main steam stop valve tests are performed. This section is retitled, "Main Steam System Valves." Other related changes have been made.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Anthony T. Gody, Jr.", with a stylized flourish at the end.

Anthony T. Gody, Jr., Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 143 to DPR-24
2. Amendment No. 147 to DPR-27
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. Robert E. Link
Wisconsin Electric Power Company

Point Beach Nuclear Plant
Unit Nos. 1 and 2

cc:

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Two Rivers, Wisconsin 54241



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. 143
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 February 21, 1992, as supplemented by letters dated April 16, 1992 and March 4, 1993, 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 applications, 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. 143, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective immediately upon issuance. The Technical Specifications are to be implemented within 20 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Anthony T. Gody, Jr., Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: December 6, 1993



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. 147
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 February 21, 1992, as supplemented by letters dated April 16, 1992 and March 4, 1993, 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 applications, 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.

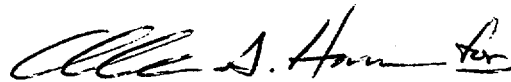
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-27 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 147, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective immediately upon issuance. The Technical Specifications are to be implemented within 20 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Anthony T. Gody, Jr., Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: December 6, 1993

ATTACHMENT TO LICENSE AMENDMENT NOS. 143 AND 147
TO FACILITY OPERATING LICENSE NOS. DPR-24 AND DPR-27
DOCKET NOS. 50-266 AND 50-301

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

REMOVE

15.3.4-2a

15.4.7-1

INSERT

15.3.4-2a

15.3.4-2b

15.4.7-1

15.4.7-1a

2. Single Unit Operation - One of the three operable auxiliary feedwater pumps associated with a unit may be out-of-service for the below specified times. The turbine driven auxiliary feedwater pump may be out-of-service for up to 72 hours. If the turbine driven auxiliary feedwater pump cannot be restored to service within that 72-hour time period, the reactor shall be in hot shutdown within the next 12 hours. Either one of the two motor driven auxiliary feedwater pumps may be out-of-service for up to 7 days. If the motor driven auxiliary feedwater pump cannot be restored to service within that 7-day period, the operating unit shall be in hot shutdown within the next 12 hours.

D. The main steam stop valves (MS-2017 and MS 2018) and the non-return check valves (MS-2017A and MS-2018A) shall be operable. If one main steam stop valve or non-return check valve is inoperable but open, power operation may continue provided the inoperable valve is restored to operable status within 4 hours, otherwise the reactor shall be placed in a hot shutdown condition within the following 6 hours. With one or more main steam stop valves or non-return check valves inoperable, subsequent operation in the hot shutdown condition may proceed provided the inoperable valve or valves are maintained closed. An inoperable main steam stop valve or non-return check valve may however, be opened in the hot shutdown condition to cool down the affected unit and to perform testing to confirm operability.

Basis

A reactor shutdown from power requires removal of core decay heat. Immediate decay heat removal requirements are normally satisfied by the steam bypass to the condenser. Therefore, core decay heat can be continuously dissipated via the steam bypass to the condenser as feedwater in the steam generator is converted to steam by heat absorption. Normally, the capability to return feedwater flow to the steam generators is provided by operation of the turbine cycle feedwater system.

15.3.4-2a

Unit 1 - Amendment No. 26, 62,
91, 103, 133, 143

Unit 2 - Amendment No. 31, 67,
95, 134, 137, 147

The eight main steam safety valves have a total combined rated capability of 6,664,000 lbs/hr. The total full power steam flow is 6,620,000 lbs/hr, therefore eight (8) main steam safety valves will be able to relieve the total full-power steam flow if necessary.

In the unlikely event of complete loss of electrical power to the station, decay heat removal would continue to be assured for each unit by the availability of either the steam-driven auxiliary feedwater pump or one of the two motor-driven auxiliary steam generator feedwater pumps, and steam discharge to the atmosphere via the main steam safety valves or atmospheric relief valves. One motor-driven auxiliary feedwater pump can supply sufficient feedwater for removal of decay heat from a unit. The minimum amount of water in the condensate storage tanks ensures the ability to maintain each unit in a hot shutdown condition for at least one hour concurrent with a loss of all AC power.

15.3.4-2b Unit 1 - Amendment No. 143
Unit 2 - Amendment No. 147

15.4.7 MAIN STEAM SYSTEM VALVES

Applicability

Applies to periodic testing and surveillance of the main steam stop valves (MS-2017 and MS-2018) and the non-return check valves (MS-2017A and MS-2018A).

Objective

To verify the ability of the main steam stop valves to close upon signal and to verify that the non-return check valves are operable.

Specification

A. Main Steam Stop Valves

The main steam stop valves shall be tested under low flow conditions of 5% steam flow or less following plant shutdowns for major fuel reloading. The test shall be performed during the plant startup prior to admitting steam to the turbine. Closure time of five seconds or less shall be verified. The five seconds shall be measured from the time of signal initiation until the valve indicates closed.

B. Non-Return Check Valves

The non-return check valves shall be tested for operability during shutdown for major fuel reloadings.

Basis

The main steam stop valves serve to limit an excessive reactor coolant system cooldown rate and resultant reactivity insertion following a main steam break incident. Their ability to close upon signal should be verified at each scheduled refueling shutdown. A closure time of five seconds was selected as being consistent with the expected response time for instrumentation as detailed in the steam line break incident analysis. The test procedure need not require steam to be flowing in the pipe. The purpose of the non-return

check valves is to prevent the blowdown of both steam generators in the event of a main steam line piping break upstream of the main steam stop valves. The non-return check valves are swinging disc check valves which are opened by normal steam flow. During no-flow conditions the non-return check valves are shut. The position of the non-return check valves, and thus the ability of the valves to close and perform their safety function, can be verified locally when no steam flow conditions are established.

References

FSAR - Section 10.4

FSAR - Section 14.2.5



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 143 AND 147 TO
FACILITY OPERATING LICENSE NOS. DPR-24 AND DPR-27

WISCONSIN ELECTRIC POWER COMPANY
POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-266 AND 50-301

1.0 INTRODUCTION

By letters dated February 21 and April 16, 1992, and March 4, 1993, in accordance with the requirements of 10 CFR 50.59(c), 50.90, and 50.4, Wisconsin Electric Power Company, licensee for Point Beach Nuclear Plant, Units 1 and 2, requested amendments to Facility Operating Licenses DPR-24 and DPR-27, to incorporate changes into the plant Technical Specifications. The proposed changes included new limiting conditions for operation (LCOs) addressing the main steam stop valves (MSSVs) and the main steam non-return check valves (NRCVs). Also included were changes to the definition of acceptable periodic testing for the MSSVs, a surveillance requirement for the NRCVs, and clarification of the permissible valve testing conditions. The revised surveillance requirements are intended to supplement, or clarify, rather than supersede, the testing requirements of Technical Specification 15.4.2.B and 10 CFR 50.55a relative to ASME Section XI inservice testing, which requires testing these valves during cold shutdown (reference NRC Safety Evaluation dated April 17, 1992). The April 16, 1992, and March 4, 1993, letters provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

The subject Technical Specification change request was submitted to fulfill the licensee's commitment in their letter of December 3, 1991, as a result of an event which occurred September 29, 1991. At that time, Point Beach, Unit 2, was in the process of shutting down for its annual refueling outage. An attempt to close the MSSVs from the control room was ineffective. By applying mechanical force to the valves, an operator was able to cause the valves to close. This event was reported in Licensee Event Report 301/91-001. A second similar event occurred May 31, 1992, when an MSSV failed to fully close when an inservice test was performed during startup of Point Beach, Unit 1. Again, mechanical force was required to close the valve. This event was reported in Licensee Event Report 266/92-006.

Technical Specification 15.3.4, "Steam and Power Conversion System," is proposed to be amended to include limiting conditions for operation (LCOs) for the main steam stop valves (MSSVs) and the main steam non-return check valves (NRCVs). The current technical specifications contain no such limiting conditions. Also proposed are revisions to Specification 15.4.7, "Main Steam Stop Valves," to clarify the definition of acceptable periodic testing for the MSSVs and to propose a surveillance requirement for the NRCVs. This specification and its bases are also revised to clarify the permissible valve testing conditions.

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Technical Specification 15.3.4, "Steam and Power Conversion System," presently does not address the operability of the MSSVs or the NRCVs. Specification 15.3.4.D states that if the reactor is in power operation when one MSSV is discovered to be inoperable, but open, reactor operations may continue, provided the valve is restored to an operable status within four hours. Otherwise, the reactor shall be placed in the hot shutdown condition within the following six hours. The proposed LCO permits continued operation in the hot shutdown condition provided the inoperable valve or valves are maintained closed. The specification provides for the MSSVs to be opened while in hot shutdown for the purpose of operability testing. The new LCO for the main steam NRCVs proposed in this application is the same as that proposed for the MSSVs.

Technical Specification 15.4.7 presently requires periodic testing of the MSSVs to verify the ability of the valves to close upon initiation of a valve closure signal. The valves are required to close within five seconds of the initiating signal. The licensee is proposing that the specification be revised to read, in part, "The five seconds shall be measured from the time of signal initiation until the valve indicates closed." The reference to the dashpot in this specification has been removed. This reference was no longer correct, since the dashpots no longer function as an arresting device for the valve disk closure.

The proposed amendment would also clarify when the surveillance testing of the MSSVs is required and when it can be performed. In addition a surveillance specification for the NRCVs is proposed to be added. The function of the NRCVs is to shut in the event of reverse steam flow in the main steam line. The NRCVs will be tested for operability during plant outages for major fuel reloading.

To reflect the more comprehensive nature of this surveillance specification, 15.4.7 has been retitled "Main Steam System Valves." The applicability and objective statements have been revised to include the NRCVs and the specification organized into two sections.

The Bases section of the Technical Specifications is changed as necessary to support the new LCO and surveillance procedures.

2.0 EVALUATION

The intent of the Technical Specification change is to (1) clarify that the main steam stop valves are required to close within five seconds with more accurate stroke time measurement methods, (2) define test conditions for the MSSVs, (3) add testing requirements for the NRCVs, and (4) rename and rearrange the specifications for the main steam system valves.

The MSSVs and NRCVs are not addressed in the Westinghouse Standard Technical Specifications (STS); however, these valves, in combination, provide a function similar to main steam isolation valves which are addressed in STS. The requested amendment is, then, similar to the STS for the main steam valves. The MSSVs contain a swing disc which is normally held out of the main steam flow path by

an air piston. These valves are designed to close by a spring when the air supply is shut off by a signal from the steam line break protection system, and the piston is vented by redundant valves actuated by the same signal. The MSSVs are designed to close in less than five seconds in response to a steam line break. The NRCVs prevent reverse flow of steam. If a steam line ruptures between an MSSV and a steam generator, the affected steam generator will blow down. The NRCV in the line will prevent blowdown (reverse flow) from the other steam generator. Each steam line contains an MSSV and a NRCV in series; hence, a single failure will not permit blowdown of more than one steam generator irrespective of the steam line rupture location.

2.1 Specification 15.3.4.D

The proposed specification defines the limiting conditions for operation for the MSSVs and NRCVs. Power operation is allowed to continue for up to four hours with an inoperable but open (allowing steam flow to the turbine) MSSV or NRCV, thereafter within six hours the reactor must be placed in a hot shutdown condition. This period allows the licensee time to return the inoperable valve to operable if the condition can be corrected while at power operation. If the licensee determines the condition cannot be corrected, the additional six hours allows for an orderly plant shutdown. Additionally, it does not allow continued operation if more than one MSSV or NRCV is inoperable. In the event more than one valve is determined to be inoperable, immediate action would be required to place the reactor in a hot shutdown condition within six hours.

With one or more MSSV or NRCV inoperable, subsequent operation in the hot shutdown condition is allowed for an indefinite period provided the inoperable valve or valves are maintained closed. However, an inoperable valve may be opened in the hot shutdown condition for testing to confirm operability. This is an acceptable allowance in that the safety function of the valves is to close, and this will place the inoperable valve or valves in the safe position. If the inoperability is such that the affected valve or valves cannot be closed, hot shutdown may not continue, but the plant must proceed to cold shutdown. Additionally, the specification allows only one inoperable valve at a time to be opened for testing; therefore, if the tested valve does not reclose, hot shutdown may not continue, but the plant must proceed to cold shutdown.

The establishment of limiting conditions of operation clarifies actions the operators are required to take when an MSSV and/or a NRCV is determined to be inoperable during power operations and during hot shutdown conditions. Rather than relying on the discretion of the operators to make a determination, these limiting conditions provide an additional level of assurance that the appropriate actions will be taken for inoperable safety-related equipment. The limiting conditions are more conservative than the STS for main steam isolation valves. The staff finds the proposed specification acceptable.

2.2 Specification 15.4.7

This specification provides the surveillance requirements, in addition to the requirements of specification 15.4.2.B for inservice testing, for the main steam stop valves and the non-return check valves.

The requested change renames the specification from *Main Steam Stop Valves* to *Main Steam System Valves* in recognition that the non-return check valves are now included in the specification. The applicability statement and the objective sections were changed to include the non-return check valves, as well.

The surveillance requirements for the MSSVs have been changed to clarify when the valve testing is to be performed. The revised specification requires MSSV testing during plant start-up following a refueling outage prior to admitting steam to the turbine to assure an acceptable "as-left" condition. *Reactor shutdown* was replaced by *plant shutdown* to allow conduct of the testing with the reactor critical, thereby providing steam for the test. *Low flow conditions* has been clarified to be 5% steam flow or less for establishing test conditions for the valves. The basis section has been modified by deleting a reference to static test conditions and valve seating.

The closure time of five seconds is retained in the revised specification, but the closure verification has been modified. Previously, the specification required measurement of the closure time from the time of signal initiation until the valve disc was brought to a halt by the dashpot. Because closure can be verified by a shut indication in the control room and by mechanical indication locally at the valve, and because the dashpots no longer function as an arresting device for the valve disc, the measurement of the closure time will now be from the time of signal initiation until the valve indicates closed. This change more accurately reflects the configuration of the valves and the current methods of stroke time measurements.

The revised specification adds the surveillance requirements for the non-return check valves such that they are to be tested during refueling outages. The basis section now includes a description of the function of the non-return valves and the purpose of the surveillance. The licensee has indicated their intention to install position indicators for the NRCVs for verification of disc closure in order to meet the requirements of the revised specification. Currently there is no means to verify that these valves are fully closed.

The revised specification is acceptable to the staff. The changes include additional requirements and clarify existing requirements. The modifications to the NRCVs to provide position indication will enhance the existing inservice testing required for these valves. The revised surveillance requirements provide an increased level of assurance of the operability of the valves.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Wisconsin State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or change an inspection or surveillance requirement. The staff has determined

that the amendments involve 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 published a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding (57 FR 18181). Accordingly, these amendments meet 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 these amendments.

5.0 CONCLUSION

The staff has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Patricia Campbell

Date: December 6, 1993