

5/25/76

Docket No. 50-266

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

Gentlemen:

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The Commission has issued the enclosed Amendment No. 16 to Facility Operating License No. DPR-24 for the Point Beach Nuclear Plant Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application dated March 5, 1976.

The amendment consists of changes in the Technical Specifications that will add new Departure from Nucleate Boiling (DNB) related limiting conditions for operation.

Copies of the Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Enclosures:

1. Amendment No. 16
2. Safety Evaluation
3. Federal Register Notice

OFFICE	ORB#3	ORB#3 <i>JW</i>	OELD <i>ST</i>	ORB#3		
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DATE	5/ 176	5/ 20 /76	5/ 21 /76	5/ 25 /76		

Wisconsin Michigan Power Company
Wisconsin Electric Power Company

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cc:

Mr. Bruce Churchill, Esquire
Shaw, Pittman, Potts and Trowbridge
Barr Building
910 17th Street, N. W.
Washington, D. C. 20006

Mr. Arthur M. Fish
Document Department
University of Wisconsin -
Stevens Point Library
Stevens Point, Wisconsin 54481

Mr. Norman Clap, Chairman
Public Service Commission
of Wisconsin
Hill Farms State Office Building
Madison, Wisconsin 53702



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

WISCONSIN ELECTRIC POWER COMPANY
WISCONSIN MICHIGAN POWER COMPANY

DOCKET NO. 50-266

POINT BEACH NUCLEAR PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 16
License No. DPR-24

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Wisconsin Electric Power Company and Wisconsin Michigan Power Company (the licensees) dated March 5, 1976, 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 1;
 - 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; and
 - 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.
 - E. After weighing the environmental aspects involved, 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 a change to the Technical Specifications as indicated in the attachment to this license amendment.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Attachment:
Changes to the
Technical Specifications

Date of Issuance:

ATTACHMENT TO LICENSE AMENDMENT NO. 16

TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-24

DOCKET NO. 50-266

Replace pages 15.3.1-2 and 15.3.1-3 with the attached revised pages.

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.

4. OPERATIONAL LIMITATIONS

- a. The following DNB related parameters shall be maintained within the limits shown:

- 1) Reactor Coolant System $T_{AVG} \leq 578^{\circ}\text{F}$
- 2) Pressurizer Pressure $\geq 2220^*$ psia during operation at 2250 psia.
- 3) Reactor Coolant System Total Flow Rate $\geq 178,000$ gpm.

* Limit not applicable during either a thermal power ramp increase in excess of 5% rated thermal power per minute or a thermal power step increase in excess of 10% rated thermal power.

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 of the 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 DNB 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 were 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)

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 exists. However, during initial unit startup reactor coolant flow was measured and correlated to Core ΔT . Therefore monitoring of ΔT may be used to verify the above minimum flow requirement is met. If a change in steady state full power ΔT greater than 3°F is observed then actual flow measurements will be taken.

Reference

(1) FSAR Section 14.1.6

(2) FSAR Section 7.2.3



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 16 TO LICENSE DPR-24

WISCONSIN ELECTRIC POWER COMPANY

WISCONSIN MICHIGAN POWER COMPANY

POINT BEACH NUCLEAR PLANT UNIT NO. 1

DOCKET NO. 50-266

Introduction

By letter dated March 5, 1976, Wisconsin Electric Power Company (WEPCO) proposed changes to the Technical Specifications of Facility Operating License DPR-24 for Point Beach, Unit No. 1. The proposed changes would add new Departure from Nucleate Boiling (DNB) related limiting conditions for operation.

Discussion

As part of our review of the Technical Specification changes associated with Core Cycle 3 for Point Beach Unit No. 2, we requested WEPCO to propose, as new limiting conditions for operation for Unit No. 2, the values of the reactor coolant system average temperature (TAVG), pressure, and flow that were used as initial conditions in the transient and accident analyses. The purpose of our request was to provide additional assurance that Point Beach Unit No. 2 would be operated within the design basis envelope for postulated transients and accidents. In responding to our request, WEPCO proposed Technical Specification changes for Point Beach Unit No. 1 as well as Unit No. 2. The proposed changes for Unit No. 2 were issued as part of a separate licensing action on March 22, 1976. The proposed changes for Point Beach Unit No. 1, which are evaluated below, are identical to those issued for Unit No. 2.

Evaluation

The proposed new specification (Technical Specification 15.3.1.A.4) requires that reactor coolant system average temperature (TAVG), pressurizer pressure, and core flow be maintained within the range of values assumed as initial conditions in the safety analysis. No change to the normal manner of reactor operation would result. Based on our review, we have determined

that the proposed Technical Specification would provide additional assurance that the plant would be operated within the design basis envelope; thus maintaining the validity of the safety analysis. Therefore, from a reactor safety standpoint, we have concluded that the proposed change is acceptable.

In addition, we have determined that the amendment does 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 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 statement, negative declaration, or environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

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

Dated:

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-266

WISCONSIN ELECTRIC POWER COMPANY
WISCONSIN MICHIGAN POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 16 to Facility Operating License No. DPR-24 issued to Wisconsin Electric Power Company and Wisconsin Michigan Power Company which revised Technical Specifications for operation of the Point Beach Nuclear Plant Unit No. 1, located in the Town of Two Creeks, Manitowac County, Wisconsin. The amendment is effective as of its date of issuance.

The amendment consists of changes in the Technical Specifications that will add new Departure from Nucleate Boiling (DNB) related limiting conditions for operation.

The application for the amendment 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 amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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

to 10 CFR §51.5(d)(4) an environmental statement, negative declaration or environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated March 5, 1976, (2) Amendment No. 16 to License No. DPR-24, 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 N.W., Washington, D. C. and at the Document Department - University of Wisconsin, Stevens Point Library, ATTN: Mr. Arthur M. Fish, Stevens Point, Wisconsin 54481.

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 day of

FOR THE NUCLEAR REGULATORY COMMISSION

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors