

AUG 3 0 1976

Docket Nos. 50-266
and 50-301

Wisconsin Electric Power Company
Wisconsin Michigan Power Company
ATTN: Mr. Sol Burstein
Executive Vice President
231 West Michigan Street
Milwaukee, Wisconsin 53203

Gentlemen:

Enclosed is a signed original of an Order for Modification of License, dated August 27, 1976, issued by the Commission for the Point Beach Nuclear Plant, Units Nos. 1 and 2. This order amends Facility Operating Licenses DPR-24 and DPR-27 by adding the provision that a corrected ECCS analysis be submitted as soon as possible.

A copy of the Order is being filed with the Office of the Federal Register for publication.

Sincerely,

Original signed by

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

Enclosure:
Order for Modification
of License

cc: See next page

ORB #3
CParrish
8/21/76

ORB #3
GLear/Elliott
8/26/76

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SURNAME ➤	MFletcher		Goller/Eisenhut	VStello	ECASE	BRusche
DATE ➤	8/21/76	8/ /76	8/27/76	8/27/76	8/27/76	8/27/76

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Wisconsin Electric Power Company - 2 -
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cc:

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

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

Mr. Arthur M. Fish
Document Department
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Wisconsin Electric Power Company
ATTN: Mr. Glen Reed
Plant Superintendent
Point Beach Plant
231 West Michigan Street
Milwaukee, Wisconsin 53201

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

WISCONSIN ELECTRIC POWER COMPANY)
AND WISCONSIN MICHIGAN POWER COMPANY)
COMPANY)

Docket Nos. 50-266
50-301

Point Beach Nuclear Plant Units Nos.)
1 and 2)

ORDER FOR MODIFICATION OF LICENSE

I.

The Wisconsin Electric Power Company and Wisconsin Michigan Power Company (the Licensees), are the holders of Facility Operating Licenses Nos. DPR-24 and DPR-27 which authorize the operation of two nuclear power reactors known as Point Beach Nuclear Plant, Units Nos. 1 and 2, respectively, (the facility) at steady state reactor power levels not in excess of 1518 thermal megawatts (rated power). The facility consists of two pressurized water reactor (PWR) located at the Licensee's site near Two Creeks, Manitowoc County, Wisconsin.

II.

In conformance with evaluations of the performance of the Emergency Core Cooling System (ECCS) of the facility submitted by the Licensee on September 6, 1974, June 24, and October 6, 1975 and supplements dated December 6, 1974, May 7, November 5 and 26 and December 15 and 18, 1975, the Technical Specifications issued December 24, 1975 for the facility limit the reactor total nuclear peaking factor (F_Q) to 2.32. The ECCS performance evaluation submitted by the Licensee was based upon a previously approved ECCS evaluation model

developed by the Westinghouse Electric Corporation (Westinghouse), the design of the facility, to conform with the requirements of the Commission's ECCS Acceptance Criteria, 10 CFR Part 50, §50.46 and Appendix K. The evaluation indicated that with a total nuclear peaking factor limited as set forth above, and with the other limits set forth in the facility's Technical Specifications, the ECCS cooling performance for the facility would conform with the criteria contained in 10 CFR §50.46(b) which govern calculated peak clad temperature, maximum cladding oxidation, maximum hydrogen generation, coolable geometry and long term cooling.

Due to the configuration of the Westinghouse reactor vessel design, a small portion of reactor inlet water which is cooler than outlet water is directed through several nozzles located on the periphery of the vessel to cool the upper portion of the vessel head. Accordingly, upper head temperatures used in evaluating ECCS performance were assumed to be equal to the reactor inlet water temperature. However, recent operating data gathered at the Connecticut Yankee facility has indicated that, contrary to this expectation, the temperature of the water in the upper head is higher than the reactor inlet water temperature, by about 60% of the difference between reactor inlet and reactor outlet temperature. This higher upper head water temperature would have the effect of increasing the calculated peak clad temperature in the event of a loss of coolant accident.

In a meeting with the staff on August 9, 1976, Westinghouse presented generic evaluations of the effect on calculated peak clad temperature for the worst break identified in previous calculations for each type of Westinghouse reactor and fuel design using an upper head water temperature exceeding reactor inlet water temperature by an amount equal to 75% of the reactor inlet - reactor outlet differential. On August 12, 1976, the staff instructed the licensee to submit an analysis similar to the Westinghouse evaluation with the clearly conservative assumption of upper head water temperature equal to reactor outlet temperature (100% of the reactor outlet - reactor inlet differential) and to operate the facility in accordance with the results of this analysis. The results of the evaluation submitted for the Point Beach reactors indicated that with this modification of the upper head water temperature the calculated peak clad temperature for the worst case break would not exceed the Commission's ECCS performance criteria.

The staff expects that, when revised calculations for the facility are submitted using an approved evaluation model with correct input for upper head water temperature, or assuming that the upper head water temperature equals reactor vessel outlet water temperature, such calculations will demonstrate that operation with this total nuclear peaking factor would conform to the criteria of 10 CFR §50.46(b). Such revised calculations fully conforming to the requirements of 10 CFR §50.46 are to be provided for the facility as soon as possible. The limitations presently incorporated in the Technical Specifications for the facility continue to provide reasonable assurance that the public health and safety will not be endangered.

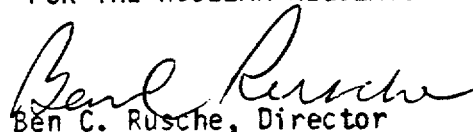
Copies of the following documents are available for public inspection in the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., 20555 and at the University of Wisconsin - Stevens Point Library, Stevens Point, Wisconsin: (1) the applications for amendment dated September 6, 1974, June 24 and October 6, 1975, and supplements dated December 6, 1974, May 7, November 5 and 26, and December 15 and 18, 1975, (2) Amendments Nos. 14 and 18 to License Nos. DPR-24 and DPR-27, (3) Licensees letter dated August 18, 1976, and (4) This Order for Modification of License, In the Matter of Wisconsin Electric Power Company and Wisconsin Michigan Power Company, Point Beach Nuclear Plant, Units Nos. 1 and 2, Docket Nos. 50-266 and 50-301.

III.

Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, and the Commission's Rules and Regulations in 10 CFR Parts 2 and 50, IT IS ORDERED THAT Facility Operating License Nos. DPR-24 and DPR-27 are hereby amended by adding the following new provision:

1. As soon as possible, the Licensee shall submit a re-evaluation of ECCS cooling performance calculated in accordance with an approved Westinghouse Evaluation Model, with appropriate correction for upper head water temperature.

FOR THE NUCLEAR REGULATORY COMMISSION



Ben C. Rusche, Director
Office of Nuclear Reactor Regulation

Dated in Bethesda, Maryland
this 27th day of August, 1976