

July 2, 1997

Mr. Richard R. Grigg
Chief Nuclear Officer
Wisconsin Electric Power Company
231 West Michigan Street, Room P379
Milwaukee, WI 53201

SUBJECT: POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2 - ENVIRONMENTAL ASSESSMENT RELATED TO GRANTING OF AMENDMENTS RE: TECHNICAL SPECIFICATION CHANGES FOR REVISED SYSTEM REQUIREMENTS TO ENSURE POST-ACCIDENT CONTAINMENT COOLING CAPABILITY (TAC NOS. M96741 AND M96742)

Dear Mr. Grigg:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to Wisconsin Electric Power Company's application for amendments dated September 30, 1996, (TSCR-192), as supplemented on November 26 and December 12, 1996, February 13, March 5, April 2, April 16, May 9, June 3, June 13 (two letters), and June 25, 1997. The proposed amendments would revise Technical Specification (TS) 15.3.3, "Emergency Core Cooling System, Auxiliary Cooling Systems, Air Recirculation Fan Coolers, and Containment Spray," to change allowed outage times and increase the number of pumps required to be operable for the service water and component cooling water systems; TS 15.3.7, "Auxiliary Electrical Systems," to reflect service water system operability requirements; TS 15.3.12, "Control Room Emergency Filtration," to change charcoal filtration efficiencies and include a specific testing standard; and TS 15.5.2, "Containment," to change the design heat removal capability of the containment fan coolers.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

ORIGINAL SIGNED BY
Linda L. Gundrum, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

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Docket Nos. 50-266
and 50-301

Enclosure: Environmental Assessment

cc w/encl: See next page

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Staff always has the discretion to issue an EA, even when an categorical exclusion is available as it is here. OGC has no legal objection to the issuance of this EA.

DOCUMENT NAME: G:\WPDOCS\PTBEACH\PTB96741.EA

**See previous concurrence*

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Mr. Richard R. Grigg
Wisconsin Electric Power Company

Point Beach Nuclear Plant
Unit Nos. 1 and 2

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UNITED STATES NUCLEAR REGULATORY COMMISSION
WISCONSIN ELECTRIC POWER COMPANY
DOCKET NOS. 50-266 AND 50-301
POINT BEACH NUCLEAR PLANT
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. DPR-24 and DPR-27, issued to Wisconsin Electric Power Company, (the licensee), for operation of the Point Beach Nuclear Plant, Units 1 and 2, located in Manitowoc County, Wisconsin.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would revise Technical Specification (TS) 15.3.3, "Emergency Core Cooling System, Auxiliary Cooling Systems, Air Recirculation Fan Coolers, and Containment Spray," to change allowed outage times and increase the number of pumps required to be operable for the service water and component cooling water systems; TS 15.3.7, "Auxiliary Electrical Systems," to reflect service water system operability requirements; TS 15.3.12, "Control Room Emergency Filtration," to increase charcoal filtration efficiencies and include a specific testing standard; and TS 15.5.2, "Containment," to change the design heat removal capability of the containment fan coolers.

The proposed action is in accordance with the licensee's application for amendments dated September 30, 1996 (TSCR-192), as supplemented on November 26 and December 12, 1996, February 13, March 5, April 2, April 16, May 9, June 3, June 13 (two letters), and June 25, 1997.

The Need for the Proposed Action:

The proposed action would allow the licensee to maintain the original design basis requirement to maintain service water as a single-phase fluid in the water-filled cooler portion of the containment air recirculation fan coolers and to modify the design and operation of plant systems to accurately reflect system and component capabilities of Units 1 and 2. The proposed action would change the TS to reflect revised design and operating requirements for the emergency core cooling system, auxiliary cooling systems, air recirculation fan coolers, containment spray system, auxiliary electrical systems, and control room emergency filtration system. The revised design and operating requirements include decreasing service water flow to the air recirculation fan coolers to ensure adequate backpressure is maintained in the air recirculation fan coolers to prevent two-phase flow in the coolers; decreasing the containment heat removal capability of the air recirculation fan coolers because of the decrease in service water flow; limiting the source of water supplied for the containment spray pumps to the available volume of water in the refueling water storage tank, recalculating available volume of water in the refueling water storage tank to address instrument inaccuracies; reducing the volume of water assumed in the containment sump at the start of recirculation initiation; increasing the required number of operable service water pumps to six, increasing the required number of operable component cooling water pumps to two per unit; eliminating the one-unit and two-unit conditions for the component cooling water system; modifying the designation of service water loops to define three headers (north, south, and west); revising the limiting conditions for operation of components in the service water system; changing the required actions in case of electrical bus

availability to require shutdown of both units; increasing the charcoal filter efficiency based on standardized testing to a minimum of 99 percent methyl iodide removal efficiency, revising the standard for thyroid dose conversion factors; revising the activity limits for the primary and secondary systems; changing the modes of operation of the control room ventilation system; reevaluating components in containment required to be environmentally qualified to revised pressure and temperature limits resulting from a large-break loss-of-coolant accident; and modifying the post-accident sampling system design. Changes resulting from replacing the steam generators for Unit 2 and revising the accident analyses for Units 1 and 2 to incorporate new steam generator setpoints, operating pressures, and instrument inaccuracies were also included in the evaluations to support these amendment applications.

The changes proposed by the proposed amendments provide the appropriate limiting conditions for operation, action statements, allowable outage times, and design specifications for service water, containment cooling, component cooling water, control room ventilation system, and normal and emergency power supplies. This ensures that the safety systems that protect the reactor and containment will operate as required. The design of the reactor and containment are not affected by these proposed changes. The proposed changes resulted in a revised design basis for both units. The revised design basis was appropriately evaluated to ensure that there was not a significant reduction in the margin of safety. The safety systems and limiting conditions for operation for these safety systems that provide support functions will continue to meet the requirements for accident mitigation for Point Beach Nuclear Plant. The revised accident analyses required reevaluation of the radiological consequences. The limiting design-basis accident for dose assessment is the large-break loss-of-coolant accident.

Environmental Impacts of the Proposed Action:

Title 10, Code of Federal Regulations, Part 100, specifies guidelines for radiation exposure at the exclusion area boundary and the low population zone. The Point Beach Nuclear Plant, Units 1 and 2, were licensed based on not exceeding a total radiation dose to the whole body in excess of 25 rem and a total radiation dose in excess of 300 rem to the thyroid from iodine exposure for an individual located at any point on the exclusion area boundary (EAB) for 2 hours immediately following onset of the postulated fission product release and not exceeding a total radiation dose to the whole body in excess of 25 rem or a total radiation dose in excess of 300 rem to the thyroid from iodine exposure for an individual located at any point on outer boundary of the low population zone (LPZ) who is exposed to the radioactive cloud resulting from the postulated fission product release (during its entire passage which is conservatively assumed to occur over a 30-day period following the radioactive release). The values given in the original safety evaluation report issued in 1970 listed staff determined values of 4 rem whole body and 240 rem thyroid for an individual located at the EAB for a 2-hour period following an accident and less than 1 rem whole body and 45 rem thyroid for an individual located at any point on the outer boundary of the LPZ. The licensee's evaluation of the dose received to the whole body at both the EAB and LPZ was not significantly changed from the original licensing safety evaluation. The licensee's evaluation of the thyroid dose received by an individual at the EAB based on the proposed changes indicate no increase in dose as compared to the dose presented in the original licensing safety evaluation. The licensee's evaluation of the thyroid dose received by an individual in the LPZ indicates an approximately 5 percent increase in thyroid dose as compared to the dose presented in the original licensing safety

evaluation. However, the dose still represents only 20 percent of the reference values specified in 10 CFR Part 100 and the change is not considered a significant increase based on the exceedingly low probability of occurrence of a large-break loss-of-coolant accident and low risk of public exposure to radiation. The licensee concluded that the occupational exposure of the control room operators is within the 30 rem thyroid dose guidelines of 10 CFR Part 50, Appendix A, General Design Criterion 19, based on the use of potassium iodide tablets. The reliance on potassium iodide tablets was previously approved in the safety evaluation for closure of NUREG-0737, Item III.D.3.4, "Control Room Habitability." The calculated thyroid dose was previously 23.7 rem and the revised dose is 29.3 rem. The revised dose is still within GDC 19 dose limits. Thus the thyroid dose to control room operators is not considered significant. The licensee has provided commitments to upgrade the design, operation, and analyses to achieve a control room operator thyroid dose based on specific occupancy factors without reliance on potassium iodide. The licensee's changes in dose values are primarily the result of changes in assumptions, methodology, and calculational techniques.

The Commission has completed its evaluation of the proposed action and concludes that the proposed amendments will not increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable individual or cumulative occupational radiation exposure. Accordingly, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological impacts, the proposed action does involve features located entirely within the restricted area as defined

in 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Accordingly, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

Since the Commission has concluded there is no measurable environmental impact associated with the proposed action, any alternatives with equal or greater environmental impact need not be evaluated. As an alternative to the proposed action, the staff considered denial of the proposed action. Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Point Beach Nuclear Plant, Units 1 and 2.

Agencies and Persons Consulted:

In accordance with its stated policy, on July 2, 1997, the staff consulted with the Wisconsin State official, Jeff Kitzenbuel, of the Wisconsin Public Service Commission regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

Based upon the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated September 30, 1996, as supplemented on November 26 and December 12, 1996, February 13, March 5, April 2, April 16, May 9, June 3, June 13 (two), and June 25, 1997, which are available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at The Lester Public Library, 1001 Adams Street, Two Rivers, WI 54241.

Dated at Rockville, Maryland, this 2nd day of July 1997.

FOR THE NUCLEAR REGULATORY COMMISSION

Linda L. Gundrum

Linda L. Gundrum, Project Manager
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