

August 22, 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 AND FINDING OF NO SIGNIFICANT IMPACT RE: REQUEST FOR EXEMPTION FROM 10 CFR 70.24(a) CRITICALITY ACCIDENT REQUIREMENTS (TAC NOS. M98973 AND M98974)

Dear Mr. Grigg:

Enclosed for your information is a copy of an "Environmental Assessment and Finding of No Significant Impact." This assessment relates to your application dated June 7, 1997, which requested an exemption from certain requirements of 10 CFR 70.24, "Criticality Accident Requirements," Paragraph (a).

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

Sincerely,

Orig. signed by  
Linda L Gundrum, Project Manager  
Project Directorate III-1  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-266  
and 50-301

Enclosure: Environmental Assessment

cc w/encl: See next page

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

August 22, 1997

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Wisconsin Electric Power Company  
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Sincerely,

A handwritten signature in cursive script that reads "Linda L. Gundrum".

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

Docket Nos. 50-266  
and 50-301

Enclosure: Environmental Assessment

cc w/encl: See next page

Mr. Richard R. Grigg  
Wisconsin Electric Power Company

Point Beach Nuclear Plant  
Unit Nos. 1 and 2

cc:

Ernest L. Blake, Jr.  
Shaw, Pittman, Potts & Trowbridge  
2300 N Street, N.W.  
Washington, DC 20037

Mike McMullen (5)  
Environmental Review Coordinator  
Region 5  
77 West Jackson Boulevard  
Environmental Protection Agency  
Chicago, IL 60604-3507

Mr. Scott A. Patulski  
Vice President  
Point Beach Nuclear Plant  
Wisconsin Electric Power Company  
6610 Nuclear Road  
Two Rivers, Wisconsin 54241

Mr. Ken Duveneck  
Town Chairman  
Town of Two Creeks  
13017 State Highway 42  
Mishicot, Wisconsin 54228

Chairman  
Public Service Commission  
of Wisconsin  
P.O. Box 7854  
Madison, Wisconsin 53707-7854

Regional Administrator, Region III  
U.S. Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, Illinois 60532-4351

Resident Inspector's Office  
U.S. Nuclear Regulatory Commission  
6612 Nuclear Road  
Two Rivers, Wisconsin 54241

Ms. Sarah Jenkins  
Electric Division  
Public Service Commission of Wisconsin  
P.O. Box 7854  
Madison, Wisconsin 53707-7854

UNITED STATES NUCLEAR REGULATORY COMMISSIONWISCONSIN ELECTRIC POWER COMPANYDOCKET NOS. 50-266 AND 50-301POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering granting an exemption from the requirements of 10 CFR 70.24(a) to Wisconsin Electric Power Company, (the licensee), in connection with the operation of the Point Beach Nuclear Plant (PBNP), Units 1 and 2, located in Manitowoc County, Wisconsin, under Facility Operating Licenses Nos. DPR-24 and DPR-27.

ENVIRONMENTAL ASSESSMENTIdentification of Proposed Action:

The proposed action would exempt the licensee from the requirements of 10 CFR 70.24(a), which requires a monitoring system that will energize clear audible alarms if accidental criticality occurs in each area in which special nuclear material is handled, used, or stored. The proposed action would also exempt the licensee from the requirements to maintain emergency procedures for each area in which this licensed special nuclear material is handled, used, or stored to ensure that all personnel withdraw to an area of safety upon the sounding of the alarm, to familiarize personnel with the evacuation plan, and to designate responsible individuals for determining the cause of the alarm, and to place radiation survey instruments in accessible locations for use in such an emergency.

The proposed action is in accordance with the licensee's application for exemption dated June 7, 1997.

The Need for the Proposed Action:

The purpose of 10 CFR 70.24 is to ensure that if a criticality were to occur during the handling of special nuclear material, personnel would be alerted to that fact and would take appropriate action. At a commercial nuclear power plant the inadvertent criticality with which 10 CFR 70.24 is concerned could occur during fuel handling operations. The special nuclear material that could be assembled into a critical mass at a commercial nuclear power plant is in the form of nuclear fuel; the quantity of other forms of special nuclear material that is stored on site is small enough to preclude achieving a critical mass. Because the fuel is not enriched beyond 5.0 weight percent Uranium-235 and because commercial nuclear plant licensees have procedures and features designed to prevent inadvertent criticality, the staff has determined that it is unlikely that an inadvertent criticality could occur due to the handling of special nuclear material at a commercial power reactor. The requirements of 10 CFR 70.24, therefore, are not necessary to ensure the safety of personnel during the handling of special nuclear materials at commercial power reactors.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed action and concludes that there is no significant environmental impact if the exemption is granted. Inadvertent or accidental criticality will be precluded through compliance with the PBNP, Units 1 and 2, Technical Specifications, the design of the fuel storage racks providing geometric spacing of fuel assemblies in their storage locations, and administrative controls imposed on fuel handling procedures. Technical Specifications requirements specify reactivity limits for the fuel storage racks and minimum spacing between the fuel assemblies in the storage racks.

Appendix A of 10 CFR Part 50, "General Design Criteria for Nuclear Power Plants," Criterion 62, requires that criticality in the fuel storage and handling system shall be prevented by physical systems or processes, preferably by use of geometrically safe configurations. This is met at PBNP, as identified in the Technical Specifications and the Final Safety Analysis Report (FSAR). PBNP Technical Specifications Section 15.5.4, "Fuel Storage," states that "The new and spent fuel storage racks are designed so that it is impossible to store assemblies in other than the prescribed storage locations. The fuel is stored vertically in an array with sufficient center-to-center distance between assemblies to assure  $K_{eff} < 0.95$ ...." FSAR Section 9.5, "Fuel Handling System," Subsection 9.5.1, "Design Basis," states the Point Beach general design criterion for prevention of fuel storage criticality is "Criticality in the new and spent fuel storage pits shall be prevented by physical systems or processes. Such means as geometrically safe configurations shall be emphasized over procedural controls."

The proposed action would not result in any significant radiological impacts. The proposed action would not affect radiological plant effluents nor cause any significant occupational exposures since the Technical Specifications, design controls (including geometric spacing of fuel assembly storage spaces), and administrative controls preclude inadvertent criticality. The amount of radioactive waste would not be changed by the proposed action.

The proposed action does not result in any significant nonradiological environmental impacts. The proposed action involves 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 that 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 requested exemption. Denial of the request 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 Related to the Operation of Point Beach Nuclear Plant," dated May 1972.

Agencies and Persons Consulted:

In accordance with its stated policy, on July 29, 1997, the staff consulted with the Wisconsin State official, Ms. Sarah Jenkins 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 June 6, 1997, which is available for public inspection at the Commission's Public Document Room, which is located at The Gelman Building, 2120 L Street, NW., Washington, D. C., and

Washington, D. C., 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 22nd day of August 1997.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script that reads "Linda L. Gundrum".

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

August 22, 1997

MEMORANDUM TO: Rules and Directives Branch  
Division of Administrative Services  
Office of Administration

FROM: Office of Nuclear Reactor Regulation

SUBJECT: WISCONSIN ELECTRIC POWER COMPANY  
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2  
(TAC NOS. M98973 AND M98974)

One signed original of the *Federal Register* Notice identified below is attached for your transmittal to the Office of the Federal Register for publication. Additional conformed copies ( 5 ) 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 Consideration of Issuance of Amendment to Facility Operating License. (Call with 30-day insert date).
- 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).
- Order.
- Exemption.
- Notice of Granting Exemption.
- Environmental Assessment.
- Notice of Preparation of Environmental Assessment.
- Receipt of Petition for Director's Decision Under 10 CFR 2.206.
- Issuance of Final Director's Decision Under 10 CFR 2.206.
- Other: Please call Shirley Poonai on 301-415-1302 if you have any questions.

DOCKET NO. 50-266 and 50-301

Attachment(s): As stated

Contact: Linda Gundrum  
Telephone: 301-415-1380

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