

March 15, 1989

Docket Nos. 50-266  
and 50-301

Mr. C. W. Fay, Vice President  
Nuclear Power Department  
Wisconsin Electric Power Company  
231 W. Michigan Street, Room 308  
Milwaukee, Wisconsin 53201

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Dear Mr. Fay:

SUBJECT: POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2 - ENVIRONMENTAL  
ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT - INCREASED  
ALLOWABLE CORE POWER PEAKING FACTOR AMENDMENT (TAC NOS.  
69349 AND 69350)

Enclosed is a copy of an "Environmental Assessment and Finding of No  
Significant Impact" for your information. This assessment is related  
to your application dated August 26, 1988, as supplemented by letters  
dated October 28, November 30, and December 23, 1988; and as modified  
January 17, 1988 (sic) to increase the allowable core power peaking  
factors for the Point Beach Nuclear Plant, Unit Nos. 1 and 2.

The Assessment has been forwarded to the Office of the Federal Register  
for publication.

Sincerely,

/s/

Warren H. Swenson, Project Manager  
Project Directorate III-3  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc w/enclosure:  
See next page

Office: *WHS per instructions* LA/PDIII-3  
Surname: *WHS* PKreutzer  
Date: 03/03/89

PM/PDIII-3  
WSwenson/mr  
03/03/89

SRXB  
WHodges

3/9/89

OGC *WHS*  
3/15/89

Office: PD/PDIII-3  
Surname: JHannon  
Date: 3/3/89

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cc

Mr. C. W. Fay  
Wisconsin Electric Power Company

Point Beach Nuclear Plant  
Units 1 and 2

cc:

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Shaw, Pittman, Potts and Trowbridge  
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UNITED STATES NUCLEAR REGULATORY COMMISSION  
WISCONSIN ELECTRIC POWER COMPANY  
POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-266 AND 50-301  
ENVIRONMENTAL ASSESSMENT AND FINDING OF  
NO SIGNIFICANT IMPACT

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

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action

The proposed amendment would revise the provisions in the Technical Specifications (TS) relating to the design and operation of the Point Beach fuel cycle with upgraded core features and at higher core power peaking factors ( $F_Q$  and  $F_{\Delta H}$ ) than are currently permitted by the plant TS.

The proposed action is in accordance with the licensee's application for amendment dated August 26, 1988, as supplemented by letters dated October 28, November 30, and December 23, 1988; and as modified January 17, 1988 (sic).

The Need for the Proposed Action

The proposed change to the TS is required in order to permit the licensee to incorporate higher core power peaking factors which will

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allow the use of a low-low leakage loading pattern (LLLP) fuel management strategy and will result in decreased neutron fluence to the reactor vessel. This fluence reduction will help address reactor vessel irradiation damage issues such as pressurized thermal shock, low upper shelf material toughness and pressure-temperature restrictions on heatup and cooldown. The higher core power peaking factors will allow additional fluence reduction measures, such as the use of peripheral power suppression assemblies, to be pursued.

In addition to the increase in core power peaking factors, the proposed changes would permit the use of an upgraded fuel product features package. The upgraded fuel product features include: removable top nozzles, integral fuel burnable absorbers, axial blankets, extended burnup geometry, and inclusion of a debris filter bottom nozzle. Finally, the reanalysis for this proposed amendment supports the removal of the fuel assembly thimble plugging devices and the elimination of the third segment of the  $K(z)$  curve.

#### Environmental Impacts of the Proposed Action

The Commission has completed its evaluation of the proposed revision to TS and concludes that operation of the Point Beach Nuclear Plant with the higher core power peaking factors and with the upgraded fuel features is acceptable. The evaluation demonstrates that acceptable thermal limits are not exceeded with the proposed changes. Normal operations as well as the accidents and transients which required reevaluation remain within acceptable bounds. Use of the upgraded fuel features does not involve significant modification to the Point

Beach reactor cores. Neither the nuclear physics nor the thermal-hydraulic parameters are significantly affected by the transition to the upgraded fuel features. Finally, sufficient conservatism has been demonstrated to permit the removal of the thimble plugging devices and the elimination of the third segment of the  $K(z)$  curve without compromising safety.

The environmental impacts of operating the Point Beach Nuclear Plant in the proposed manner are within the bounds of those impacts previously evaluated in the Final Environmental Statement with the exception of the Steam Generator Tube Rupture (SGTR) Accident. The SGTR accident was reevaluated to reflect an update to the safety injection termination requirements used in the current Point Beach SGTR recovery procedures. Although slightly higher because of higher calculated primary-to-secondary leakage during the transient, the doses calculated for the reevaluation of the SGTR accident remain a "small fraction" of the 10 CFR Part 100 exposure guidelines. The amendment does not otherwise affect radiological plant effluents during normal operation and occupational radiation exposure is unaffected. Accordingly, the Commission concludes that this proposed action would result in no significant radiological environmental impact.

The Notice of Consideration of Issuance of Amendment and Opportunity for Prior Hearing in connection with this action was published in the Federal Register on February 6, 1989 (54 FR 5707). No request for hearing or petition for leave to intervene was filed following this notice.

With regard to potential nonradiological impacts, the proposed change to the TS will in no way affect environs located outside the restricted area as defined in 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed amendment.

#### Alternative to the Proposed Action

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternatives with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendment. This would not reduce environmental impacts of plant operation and would result in reduced operational flexibility.

#### 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 Unit Nos. 1 and 2, dated May 1972.

#### Agencies and Persons Consulted

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

#### FINDING OF NO SIGNIFICANT IMPACT

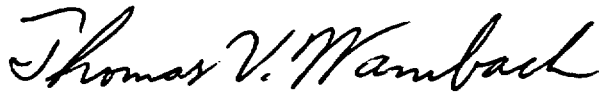
The Commission has determined not to prepare an environmental impact statement for the proposed license amendment.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for amendment dated August 26, 1988 as supplemented by letters dated October 28, November 30, and December 23, 1988; and as modified January 17, 1988 (sic), which are available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C. and at the Joseph P. Mann Library, 1516 Sixteenth Street, Two Rivers, Wisconsin.

Dated at Rockville, Maryland, this 15th day of March 1989.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script that reads "Thomas V. Wambach".

Thomas V. Wambach, Acting Director  
Project Directorate III-3  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation