

March 4, 1991

Docket No. 50-305

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Mr. Ken H. Evers
Manager - Nuclear Power
Wisconsin Public Service Corporation
Post Office Box 19002
Green Bay, Wisconsin 54307-9002

Dear Mr. Evers:

SUBJECT: AMENDMENT NO. 90 TO FACILITY OPERATING LICENSE NO. DPR-43
(TAC NO. 75910)

The Commission has issued the enclosed Amendment No. 90 to Facility Operating License No. DPR-43 for the Kewaunee Nuclear Power Plant. This amendment revises the Technical Specifications in response to your application dated January 28, 1991.

The amendment deletes Technical Specification 5.3.a.6 to allow for the receipt and installation of new neutron flux detectors.

A copy of the Safety Evaluation is also enclosed. Notice of issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

original signed by

Michael J. Davis, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 90 to License No. DPR-43
2. Safety Evaluation

cc w/enclosures:
See next page

LA/PDIII-3/DRP345 PKreutzer 2/18/91	PM/PDIII-3/DRP345 MDavis/ 2/12/91	SRXB LPhillips 2/28/91	D/PDIII-3/DRP345 JHannon 3/14/91
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m4/aw
2/19/91

DOCUMENT NAME: 79510 AMD
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2/28/91

H
D/PDIII-3/DRP345
JHannon
3/14/91

OGC-OWFN
sl/...
2/14/91

DOCUMENT NAME: 79510 AMD

Mr. Ken H. Evers
Wisconsin Public Service Corporation

Kewaunee Nuclear Power Plant

cc:
David Baker, Esquire
Foley and Lardner
P. O. Box 2193
Orlando, Florida 32082

Glen Kunesh, Chairman
Town of Carlton
Route 1
Kewaunee, Wisconsin 54216

Mr. Harold Reckelberg, Chairman
Kewaunee County Board
Kewaunee County Courthouse
Kewaunee, Wisconsin 54216

Chairman
Public Service Commission of Wisconsin
Hill Farms State Office Building
Madison, Wisconsin 53702

Attorney General
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Madison, Wisconsin 53702

U.S. Nuclear Regulatory Commission
Resident Inspectors Office
Route #1, Box 999
Kewaunee, Wisconsin 54216

Regional Administrator - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Mr. Robert S. Cullen
Chief Engineer
Wisconsin Public Service Commission
P.O. Box 7854
Madison, Wisconsin 53707



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

WISCONSIN PUBLIC SERVICE CORPORATION

WISCONSIN POWER AND LIGHT COMPANY

MADISON GAS AND ELECTRIC COMPANY

DOCKET NO. 50-305

KEWAUNEE NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 90
License No. DPR-43

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Wisconsin Public Service Corporation, Wisconsin Power and Light Company, and Madison Gas and Electric Company (the licensees) dated January 28, 1991, 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 I;
 - 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;
 - 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; and
 - E. 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 changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-43 is hereby amended to read as follows:

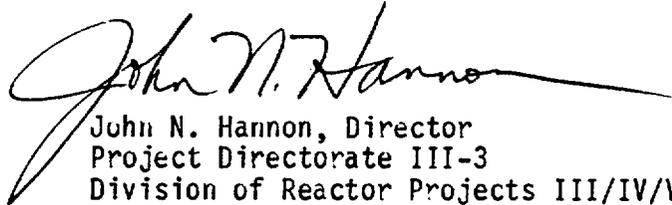
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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 90, are hereby incorporated in the license. The licensees shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance, and is to be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "John N. Hannon", with a long horizontal flourish extending to the right.

John N. Hannon, Director
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: March 4, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 90

FACILITY OPERATING LICENSE NO. DPR-43

DOCKET NO. 50-305

Revise Appendix A Technical Specifications by removing the page identified below and inserting the enclosed page. The revised page is identified by amendment number and contain marginal lines indicating the area of change.

REMOVE

5.3-2

INSERT

5.3-2

6. ~~DELETED~~

b. Reactor Coolant System

1. The design of the Reactor Coolant System complies with code requirements. ⁽³⁾
2. All high-pressure piping, components of the Reactor Coolant System and their supporting structures are designed to Class I ⁽⁴⁾ requirements, and have been designed to withstand:
 - A. The operational basis seismic ground acceleration, 0.06g, acting in the horizontal and 0.04g acting in the vertical planes simultaneously, with stress maintained within code allowable working stresses.
 - B. The design basis seismic ground acceleration, 0.12g, acting in the horizontal and 0.08g acting in the vertical planes simultaneously with no loss of function.
3. The normal liquid volume of the Reactor Coolant System, at rated operating conditions, is 6191 cubic feet.

References:

- (1) FSAR Section 3.2.3
- (2) FSAR Section 3.2.1
- (3) FSAR Table 4.1-9
- (4) FSAR Appendix B



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATING TO AMENDMENT NO. 90 TO FACILITY OPERATING LICENSE NO. DPR-43

WISCONSIN PUBLIC SERVICE CORPORATION
WISCONSIN POWER AND LIGHT COMPANY
MADISON GAS AND ELECTRIC COMPANY

KEWAUNEE NUCLEAR POWER PLANT

DOCKET NO. 50-305

1.0 INTRODUCTION

By letter dated January 28, 1991, Wisconsin Public Service Corporation (the licensee) requested an amendment to the Technical Specifications (TSs) appended to Facility Operating License No. DPR-43 for the Kewaunee Nuclear Power Plant. The proposed amendment would change the TSs by deleting Technical Specification 5.3.a.6, which currently limits the amount of enriched fissionable material in neutron flux detectors to 10 grams.

2.0 EVALUATION

The current Kewaunee Technical Specification 5.3.a.6 limits the amount of enriched fissionable material that may be used in the form of fabricated neutron flux detectors to 10 grams. The neutron flux detectors currently installed at Kewaunee comply with this Technical Specification, but are not seismically or environmentally qualified.

Regulatory Guide 1.97 recommends Category 1 neutron flux monitoring instrumentation. Wisconsin Public Service Corporation committed in their letter of October 24, 1988, to replace the detectors with instrumentation that would eliminate any noncompliance with Regulatory Guide 1.97. The new neutron flux detectors are scheduled for installation during the 1991 refueling outage.

The licensee stated in its amendment request that during the procurement process WPSC was able to identify only one qualified supplier that could economically meet the specifications for the new neutron flux detectors. The two new detectors have a total content of 16 grams of enriched fissionable material. These same detectors are currently installed at Point Beach and Prairie Island nuclear plants and are typical of neutron flux detectors currently in use in the nuclear power industry. No adverse safety effects have been reported from using these flux detectors at other sites.

Westinghouse Standard Technical Specifications have no similar restriction on the amount of enriched fissionable material contained in neutron flux detectors. Approval of this amendment request would, therefore, be consistent with the standard TS. Upon deletion of Kewaunee TS 5.3.a.6, the allowable amount of enriched fissionable material on-site for flux detectors will be limited by item 2.B(3) of the Kewaunee Facility Operating license (License No. DPR-43) which states that Wisconsin Public Service Corporation, Wisconsin Power and Light Company, and Madison Gas and Electric Company (the licensees) are licensed:

Pursuant to the Act and 10 CFR Parts 30, 40, and 70 to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation, and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

This license requirement will ensure that adequate control and accounting procedures will be implemented when required. Increasing the amount of enriched fissionable material inside a sealed flux detector within the limits of the license requirement will not result in a reduction in safety. As a sealed source, as defined in 10 CFR 70.4, manufactured to high quality standards, and seismically and environmentally qualified, the probability of failure of the chamber integrity would be very low. Use of state-of-the-art neutron flux detectors would result in a net safety and reliability increase.

The amount of enriched fissionable material in the detector is insignificant as compared to the entire core, and will not introduce additional criticality concerns. An increase in the amount of enriched fissionable materials inside sealed flux detectors will not change the purpose or function of the detector and would not affect any accident analyses.

3.0 EXIGENT CIRCUMSTANCES

The Commission's regulations, 10 CFR 50.91, contain provisions for issuance of amendments when the usual 30-day public notice period cannot be met. One type of special exception is an exigency. An exigency is a case where the staff and licensee need to act promptly, but failure to act promptly does not involve a plant shutdown, derating, or delay in startup. The exigency case usually represents an amendment involving a safety enhancement to the plant.

Under such circumstances, the Commission notifies the public in one of two ways: by issuing a Federal Register notice providing an opportunity for hearing and allowing at least two weeks for prior public comments, or by issuing a press release discussing the proposed changes, using the local media. In this case, the Commission used the first approach.

The licensee submitted the request for amendment on January 28, 1991. It was noticed in the Federal Register on February 5, 1991 (56 FR 4653), at which time the staff proposed a no significant hazards consideration

determination. The licensee requested that the amendment be issued prior to March 3, 1991, the expected delivery date on-site of the new flux detectors.

The licensee requested an exigent review of this amendment request. The licensee stated that the need for the exigent change could not have been avoided because the conflict with TS 5.3.a.6 was not discovered until the second level review of the design change to install the flux detectors was completed on January 24, 1991. The NRC project manager was promptly notified of the conflict and preparation of the exigent amendment request began immediately thereafter.

Therefore, the staff is issuing the amendment under exigent circumstances. The licensee did not request emergency treatment of the application; and the staff does not believe that an emergency situation exists. However, the staff does believe that the amendment should be issued promptly.

There were no public comments in response to the notice published in the Federal Register.

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards considerations if operation of the facility in accordance with the amendment would not: (1) involve a significant increase in the probability of consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Operation of the facility in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated. The amount of enriched fissionable material in the detectors is insignificant when compared to the entire core and, therefore, inaccessible. An increase in the amount of enriched fissionable material inside sealed flux detectors will not change the purpose or function of the detector in monitoring plant operations and, therefore, would not affect any accident analysis performed.

Operation of the facility in accordance with the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated. The amount of enriched fissionable material in a detector is negligible when compared to the amounts considered in design basis accidents. Also, enriched fissionable material in a detector is stored within a sealed chamber. Changing the amount of enriched fissionable material in sealed flux detectors would not physically alter any plant configurations, setpoints, operating parameters, or plant performance. Thus, there is no new or different kind of accident created as a result of this amendment.

Operation of the facility in accordance with the amendment will not involve a significant reduction in a margin of safety. Enriched fissionable material sealed inside a flux detector is considered a sealed source as defined by 10 CFR 70.4. This material is, therefore, inaccessible. It does not affect any plant system since it is internal to the detectors. The limits and controls for special nuclear material will be limited by and controlled in accordance with 10 CFR Parts 30, 40, and 70. This will ensure that adequate control and accounting procedures will be implemented when required. Increasing the amount of enriched fissionable material inside a flux detector and on site, within the limits of the operating license, will not reduce the margin of safety.

Based upon the above considerations, the staff concludes that the amendment meets the three criteria of 10 CFR 50.92. Therefore, the staff has made a final determination that the proposed amendment does not involve a significant hazards consideration.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, efforts were made to contact the Wisconsin state representative. The state representative was contacted and had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; and (2) 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.

Principal Contributor: Michael J. Davis

Dated: March 4, 1991