

MARCH 6 1979

DISTRIBUTION:

Docket (50-305)

Docket No. 50-305

Mr. E. W. James
Senior Vice President
Wisconsin Public Service Corporation
Post Office Box 1200
Green Bay, Wisconsin 54305

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Dear Mr. James:

The Commission has issued the enclosed Amendment No. 26 to Facility Operating License No. DPR-43 for the Kewaunee Nuclear Power Plant. This amendment consists of changes to the Technical Specifications in response to your request dated November 14, 1977, as supplemented by letters dated March 13, 1978, July 10, 1978, August 18, 1978, September 5, 1978, and September 25, 1978.

The amendment changes the Technical Specifications to authorize an increase in the storage capacity of the spent fuel pool at the Kewaunee Nuclear Power Plant. The Safety Evaluation and Environmental Impact Appraisal were issued on December 1, 1978.

Copy of the Notice of Issuance is also enclosed.

Sincerely,

Original Signed By

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:

- 1. Amendment No. 26 to DPR-43
- 2. Notice of Issuance

cc w/enclosures:
See next page

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| OFFICE → | DOR:ORB#1 | DOR:ORB#1 | OELD | DOR:ADVIS&P | DOR:ORB#1 |
| SURNAME → | LOlshan:jb | CParrish | <i>[Signature]</i> | RVollmer | ASchwencer |
| DATE → | 2/26/79 | 2/26/79 | 2/16/79 | 2/26/79 | 2/26/79 |

Wisconsin Public Service Corporation

- 2 - March 6, 1979

cc: Steven E. Keane, Esquire
Foley and Lardner
777 East Wisconsin Avenue
Milwaukee, Wisconsin 53202

Kewaunee Public Library
314 Milwaukee Street
Kewaunee, Wisconsin 54216

Mr. Donald L. Quistorff
Chairman Kewaunee County Board
Kewaunee County Courthouse
Kewaunee, Wisconsin 54216

Stanley LaCrosse
Chairman, Town of Carlton
Route 1
Kewaunee, Wisconsin 54216

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

Chief, Energy Systems
Analyses Branch (AW-459)
Office of Radiation Programs
U. S. Environmental Protection Agency
Room 645, East Tower
401 M Street, S. W.
Washington, D.C. 20460

U. S. Environmental Protection Agency
Federal Activities Branch
Region V Office
ATTN: EIS COORDINATOR
230 South Dearborn Street
Chicago, Illinois 60604



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. 26
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 November 14, 1977, as supplemented by letters dated March 13, 1978, July 10, 1978, August 18, 1978, September 5, 1978, and September 25, 1978, 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.

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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 License No. DPR-43 is hereby amended to read as follows:

"(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 26, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications."

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 6, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 26

FACILITY OPERATING LICENSE NO. DPR-43

DOCKET NO. 50-305

Remove the following pages and replace with identically numbered pages.

3.8-2
3.8-3
3.8-4
5.4-1

6. Direct communication between the control room and the operating floor of the containment shall be available whenever changes in core geometry are taking place.
7. Heavy loads, greater than the weight of a fuel assembly, will not be transported over or placed in either spent fuel pool when spent fuel is stored in that pool. Placement of additional fuel storage racks is permitted, however, these racks may not traverse directly above spent fuel stored in the pools.
8. The containment ventilation and purge system, including the radiation monitors which initiate containment ventilation isolation, shall be tested and verified to be operable immediately prior to a refueling operation.
9. A. The spent fuel pool sweep system, including the charcoal adsorbers, shall be operating during fuel handling and when any load is carried over the pool if irradiated fuel in the pool has decayed less than 30 days. If the spent fuel pool sweep system is not operating when required, fuel movement shall not be started (any fuel assembly movement in progress may be completed).

12. A licensed senior reactor operator will be on site and designated in charge of the refueling operation.
- b. If any of the specified limiting conditions for refueling are not met, refueling of the reactor shall cease. Work shall be initiated to correct the violated conditions so that the specified limits are met, and no operations which may increase the reactivity of the core shall be performed.

Basis

The equipment and general procedures to be utilized during refueling are discussed in the FSAR. Detailed instructions, the above specified precautions, and the design of the fuel handling equipment incorporating built-in interlocks and safety features, provide assurance that no incident occurs during the refueling operations that would result in a hazard to public health and safety.⁽¹⁾ Whenever changes are not being made in core geometry, one flux monitor is sufficient. This permits maintenance of the instrumentation. Continuous monitoring of radiation levels (2 above) and neutron flux provides immediate indication of an unsafe condition. The residual heat removal pump is used to maintain a uniform boron concentration.

The shutdown margin indicated in Part 5 will keep the core subcritical, even if all control rods were withdrawn from the core. During refueling, the reactor refueling cavity is filled with approximately 275,000 gallons of borated water. The boron concentration of this water is sufficient to maintain the reactor subcritical by approximately 10% $\Delta k/k$ in the cold condition with all rods inserted, and will also maintain the core subcritical even if no control rods were inserted into the reactor.⁽²⁾

Periodic checks of refueling water boron concentration insure that proper shutdown margin is maintained. Part 6 allows the control room operator to inform the manipulator operator of any impending unsafe condition detected from the main control board indicators during fuel movement.

Interlocks are utilized during refueling to ensure safe handling. Only one assembly at a time can be handled. The fuel handling hoist is dead weight tested prior to use to assure proper crane operation. It will not be possible to lift or carry heavy objects over the spent fuel pool when fuel is stored

therein through interlocks and administrative procedures. Placement of additional spent fuel racks shall be controlled by detailed procedures to prevent traverse directly above spent fuel.

The one hundred hour decay time following plant shutdown is consistent with the assumption used in the dose calculation for the fuel handling accident. The requirement for the Auxiliary Building Special Ventilation System to be operable and spent fuel pool sweep system, including charcoal adsorbers, to be operating when spent fuel movement is being made provides added assurance that the offsite doses will be within acceptable limits in the event of a fuel handling accident. The spent fuel pool sweep system is designed to sweep the atmosphere above the refueling pool and release to the Auxiliary Building vent during fuel handling operations. Normally, the charcoal adsorbers are bypassed but for purification operation, the bypass dampers are closed routing the air flow through the charcoal adsorbers. If the dampers do not close tightly, bypass leakage could exist to negate the usefulness of the charcoal adsorber. If the spent fuel pool sweep system is found not to be operating fuel handling within the Auxiliary Building will be terminated until the system can be restored to the operating condition.

The bypass dampers are integral to the filter housing. The test of the bypass leakage around the charcoal adsorbers will include the leakage through these dampers.

High efficiency particulate absolute (HEPA) filters are installed before the charcoal adsorbers to prevent clogging of the iodine adsorbers. The charcoal adsorbers are installed to reduce the potential radioiodine releases to the atmosphere. Bypass leakage for the charcoal adsorbers and particulate removal efficiency for HEPA filters are determined by halogenated hydrocarbon

5.4 FUEL STORAGE

Applicability

Applies to the capacity and storage arrays of new and spent fuel.

Objective

To define those aspects of fuel storage relating to prevention of criticality in fuel storage areas.

Specification

- a. The new fuel pit and spent fuel pool structures including storage racks are designed to withstand anticipated earthquake loadings as Class I⁽¹⁾ structures. The spent fuel pool has a stainless steel liner to ensure against loss of water
- b. The new and spent fuel storage racks are designed to prevent inserting of assemblies in other than the prescribed locations. The fuel is stored vertically in an array with sufficient center-to-center distance between assemblies to assure $k_{eff} \leq 0.95$ even if unborated water were used to fill the pool.
- c. The spent fuel pool is filled with borated water at a concentration to match that used in the reactor refueling cavity and refueling canal during refueling operations or whenever there is fuel in the pool.

Reference:

(1) FSAR Appendix B

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-305WISCONSIN PUBLIC SERVICE CORPORATIONWISCONSIN POWER AND LIGHT COMPANYMADISON GAS AND ELECTRIC COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE
AND NEGATIVE DECLARATION

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 26 to Facility Operating License No. DPR-43 issued to Wisconsin Public Service Corporation, Wisconsin Power and Light Company, and Madison Gas and Electric Company (the licensees) which revised Technical Specifications for operation of the Kewaunee Nuclear Power Plant located in Kewaunee, Wisconsin. The amendment is effective as of the date of issuance.

The amendment permits an increase in the storage capacity of the spent fuel storage pool at the facility.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license amendment. Notice of Proposed Issuance of Amendment to Facility Operating License in connection with this action was published in the FEDERAL REGISTER on December 30, 1977 (42 FR 65335).

A hearing was requested by the Lakeshore Citizens for Safe Energy and Safe Haven, Limited (the Intervenors) on April 24, 1978. However, the Licensees, the NRC staff, the Intervenors, and the State of Wisconsin moved the Atomic

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Safety and Licensing Board (ASLB) for an order approving the withdrawal of Intervenor's from the proceeding and dismissing the proceeding in accordance with a settlement agreement entered into among Intervenor's, Licensees, and the NRC staff dated February 5, 1979. The ASLB issued the order on February 14, 1979 dismissing the proceeding.

The Commission has prepared an environmental impact appraisal for the revised Technical Specifications and has concluded that an environmental impact statement for this particular action is not warranted because there will be no environmental impact attributable to the action other than that which has already been predicted and described in the Commission's Final Environmental Statement for the facility dated December 1972.

For further details with respect to this action, see (1) the application for amendment dated November 14, 1977, as supplemented by letters dated March 13, 1978, July 10, 1978, August 18, 1978, September 5, 1978, and September 25, 1978, (2) Amendment No. 26 to License No. DPR-43, (3) the Commission's related Safety Evaluation and Environmental Impact Appraisal dated December 1, 1978, and (4) the ASLB Order dated February 14, 1979. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Kewaunee Public Library, 314 Milwaukee Street, Kewaunee, Wisconsin 54216. A copy of items (2), (3), and (4) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors, Office of Nuclear Reactor Regulation.

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Dated at Bethesda, Maryland, this 6th day of March, 1979.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "A. Schwencer".

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors