

September 3, 1985

Docket Nos. 50-266
and 50-301

DISTRIBUTION:

Docket File

NRC PDR
L PDR
ORB#3 Rdg
HThompson
PMKreutzer-3
TColburn
OELD
SECY
LHarmon

RDiggs
LTremper
OPA, CMiles
ACRS-10
MVirgilio
WJones
TBarnhart-8
JPartlow
EJordan
Gray File +4

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

Dear Mr. Fay:

The Commission has issued the enclosed Amendment Nos. 96 and 100 to Facility Operating License Nos. DPR-24 and DPR-27 for the Point Beach Nuclear Plant, Unit Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated April 26, 1985.

These amendments remove the restrictions on movement of loads over the spent fuel pool following crane modification to meet the single failure criteria of NUREG-0612. Surveillance requirements for the auxiliary building crane have also been revised to reflect crane upgrades to meet single failure criteria and to delete limit switch inspection criteria previously in the Technical Specifications. Limit switches to restrict movement over the spent fuel pool were removed following the NUREG-0612 crane upgrades.

A copy of the Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next bi-weekly Federal Register notice.

Sincerely,

/s/

Timothy G. Colburn, Project Manager
Operating Reactors Branch #3
Division of Licensing

Enclosures:

1. Amendment No. 96 to DPR-24
2. Amendment No. 100 to DPR-27
3. Safety Evaluation

cc w/enclosures:
See next page

8509050223 850903
PDR ADOCK 05000266
P PDR

ORB#3:DL
PMKreutzer
4/21/85

See
ORB#3:DL
TColburn:dd
8/21/85

ORB#3:DL
ESButcher
8/27/85

OELD
Bachmann
8/28/85
AD:PR:DL
GCLainas
8/29/85

Mr. C. W. Fay
Wisconsin Electric Power Company

Point Beach Nuclear Plant

Mr. Bruce Churchill, Esq.
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, DC 20036

Mr. James J. Zach, Manager
Point Beach Nuclear Plant
Wisconsin Electric Power Company
6610 Nuclear Road
Two Rivers, Wisconsin 54241

Mr. Gordon Blaha
Town Chairman
Town of Two Creeks
Route 3
Two Rivers, Wisconsin 54241

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

Regional Administrator
Nuclear Regulatory Commission,
Region III
Office of Executive Director
for Operations
799 Roosevelt Road
Glen Ellyn, Illinois 60137

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



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

WISCONSIN ELECTRIC POWER COMPANY

DOCKET NO. 50-266

POINT BEACH NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 96
License No. DPR-24

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Wisconsin Electric Power Company (the licensee) dated April 26, 1985 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.

8509050225 850903
PDR ADOCK 05000266
PDR

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-24 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 96, 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 issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Edward J. Butcher, Acting Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 3, 1985



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

WISCONSIN ELECTRIC POWER COMPANY

DOCKET NO. 50-301

POINT BEACH NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 100
License No. DPR-27

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Wisconsin Electric Power Company (the licensee) dated April 26, 1985 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 3.B of Facility Operating License No. DPR-27 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 100, 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 issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Edward J. Butcher, Acting Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 3, 1985

ATTACHMENT TO LICENSE AMENDMENTS NO. 96 AND 100
TO FACILITY OPERATING LICENSE NO. DPR-24 AND DPR-27
DOCKET NOS. 50-266 AND 50-301

Revise Appendix A as follows:

Remove Pages

15i
15.3.8-1
15.3.8-2
15.3.8-3
15.3.8-4
15.3.8-5
15.4.14-1

Insert Pages

15i
15.3.8-1
15.3.8-2
15.3.8-3
15.3.8-4
15.3.8-5
15.4.14-1

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
15	TECHNICAL SPECIFICATIONS AND BASES	
15.1	Definitions	15.1-1
15.2.0	Safety Limits and Limiting Safety System Settings	15.2.1-1
15.2.1	Safety Limit, Reactor Core	15.2.1-1
15.2.2	Safety Limit, Reactor Coolant System Pressure	15.2.2-1
15.2.3	Limiting Safety System Settings, Protective Instrumentation	15.2.3-1
15.3	Limiting Conditions for Operation	15.3-0
15.3.0	General Considerations	15.3.0-1
15.3.1	Reactor Coolant System	15.3.1-1
15.3.2	Chemical and Volume Control System	15.3.2-1
15.3.3	Emergency Core Cooling System, Auxiliary Cooling Systems, Air Recirculation Fan Coolers, and Containment Spray	15.3.3-1
15.3.4	Steam and Power Conversion System	15.3.4-1
15.3.5	Instrumentation System	15.3.5-1
15.3.6	Containment System	15.3.6-1
15.3.7	Auxiliary Electrical Systems	15.3.7-1
15.3.8	Refueling	15.3.8-1
15.3.9	Effluent Releases	15.3.9-1
15.3.10	Control Rod and Power Distribution Limits	15.3.10-1
15.3.11	Movable In-Core Instrumentation	15.3.11-1
15.3.12	Control Room Emergency Filtration	15.3.12-1
15.3.13	Shock Suppressors (Snubbers)	15.3.13-1
15.3.14	Fire Protection System	15.3.14-1
15.3.15	Overpressure Mitigating System	15.3.15-1
15.3.16	Reactor Coolant System Pressure Isolation Valves	15.3.16-1
15.4	Surveillance Requirements	15.4-1
15.4.1	Operational Safety Review	15.4.1-1
15.4.2	In-Service Inspection of Safety Class Components	15.4.2-1
15.4.3	Primary System Testing Following Opening	15.4.3-1
15.4.4	Containment Tests	15.4.4-1
15.4.5	Emergency Core Cooling System and Containment Cooling System Tests	15.4.5-1
15.4.6	Emergency Power System Periodic Tests	15.4.6-1
15.4.7	Main Steam Stop Valves	15.4.7-1
15.4.8	Auxiliary Feedwater System	15.4.8-1
15.4.9	Reactivity Anomalies	15.4.9-1
15.4.10	Operational Environmental Monitoring	15.4.10-1
15.4.11	Control Room Emergency Filtration	15.4.11-1
15.4.12	Miscellaneous Radioactive Materials Sources	15.4.12-1
15.4.13	Shock Suppressors (Snubbers)	15.4.13-1
15.4.14	Surveillance of Auxiliary Building Crane Lifting Devices	15.4.14-1
15.4.15	Fire Protection System	15.4.15-1
15.4.16	Reactor Coolant System Pressure Isolation Valves Leakage Tests	15.4.16-1

15.3.8 REFUELING

Applicability:

Applies to operating limitations during refueling operations.

Objective:

To ensure that no incident could occur during refueling operations that would affect public health and safety.

Specifications:

During refueling operations:

1. The equipment hatch shall be closed and the personnel locks shall be capable of being closed. A temporary third door on the outside of the personnel lock shall be in place whenever both doors in a personnel lock are open (except for initial core loading).
2. Radiation levels in fuel handling areas, the containment and spent fuel storage pool shall be monitored continuously.
3. Core subcritical neutron flux shall be continuously monitored by at least two neutron monitors, each with continuous visual indication in the control room and one with audible indication in the containment available whenever core geometry is being changed. When core geometry is not being changed at least one neutron flux monitor shall be in service.
4. At least one residual heat removal loop shall be in operation. However, if refueling operations are affected by the residual heat removal loop flow, the operating residual heat removal loop may be removed from operation for up to one hour per eight hour period.
5. During reactor vessel head removal and while loading and unloading fuel from the reactor, a minimum boron concentration of 1800 ppm shall be maintained in the primary coolant system.

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. The containment vent and purge system, including the radiation monitors which initiate isolation shall be tested and verified to be operable immediately prior to refueling operations.
8. 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 made.

Basis

The equipment and general procedures to be utilized during refueling are discussed in the Final Safety Analysis Report. 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 could occur 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 (A2 above) and neutron flux provides immediate indication of an unsafe condition. The residual heat pump is used to maintain a uniform boron concentration.

The shutdown margin indicated in Part A5 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 approximately by 5% $\Delta k/k$ 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 A6 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.

During the refueling operation a substantial number of station personnel and perhaps some regulatory people will be in the containment. The requirements are to prevent an unsafe amount of radioactivity from escaping to the environment in the case of a refueling accident, and also to allow safe avenues of escape for the personnel inside the containment as required by the Wisconsin Department of Industry, Labor and Human Relations. To provide for these requirements, the personnel locks (both doors) are open for the normal refueling operations with a third temporary door which opens outward installed across the outside end of the personnel lock. This hollow metal third door is equipped with weather stripping and an automatic door closer to minimize the exchange of inside air with the outside atmosphere under the very small differential pressures expected while in the refueling condition. Upon sounding of the containment evacuation alarm, all personnel will exit through the temporary door(s) and then all personnel lock doors shall be closed. As soon as possible, the fuel transfer gate valve shall be closed to back up the 30 foot water seal to prevent escape of fission products.

The spent fuel storage pool at the Point Beach Nuclear Plant consists of a single pool with a four foot thick reinforced concrete divider wall which separates the pool into a north half and south half. The divider wall is notched to a point sixteen feet above the pool floor to allow transfer of assemblies from one half of the pool to the other.

References

- (1) FSAR - Section 9.5.2
- (2) FSAR - Table 3.2.1-1

Previous Technical Specifications in this section had addressed maximum load limits and limitations on load movements by the auxiliary building crane over a spent fuel pool. These specifications were deleted upon modification of the crane to meet the single-failure-proof criteria outlined in NUREG-0612.

15.4.14 SURVEILLANCE OF AUXILIARY BUILDING CRANE LIFTING DEVICES

Applicability:

Applies to surveillance requirements for the auxiliary building crane special lifting devices and slings before handling heavy (≥ 1750 lbs.) loads carried over or near the spent fuel pool.

Objective:

To verify that special lifting devices and slings used in conjunction with the auxiliary building crane are operable prior to their use in supporting heavy loads over the spent fuel pool.

Specification:

1. All slings and special lifting devices which will be used in supporting heavy loads from either the main or auxiliary hoist of the auxiliary building crane shall be inspected immediately prior to use.

Basis:

The auxiliary building crane has been modified to conform with single-failure-proof criteria. This modification evolved as a result of concern over the movement of heavy loads over or near the spent fuel pool when spent fuel is stored there.⁽¹⁾ The crane is designed to not allow a load drop as a result of any single constituent component failure. As the slings and special lifting devices are, by their nature, an integral part of the load bearing path, their surveillance is necessary to ensure against a load drop as a result of deficient rigging.

Reference:

1. NUREG-0612



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 96 AND 100 TO

FACILITY OPERATING LICENSE NOS. DPR-24 AND DPR-27

WISCONSIN ELECTRIC POWER COMPANY

POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-266 AND 50-301

Introduction

By letter dated April 26, 1985, Wisconsin Electric Power Company, the licensee for Point Beach Nuclear Plant, Units 1 and 2, submitted an amendment application to their license Nos. DPR-24 and DPR-27, portions of which would remove the limitations on load movements over the spent fuel pool and surveillance of the auxiliary building crane. These limitations, intended as interim measures, were imposed as a result of NRC staff review of heavy load handling in accordance with the criteria of NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants," and are documented in an April 8, 1985 Safety Evaluation. The licensee's submittal also revises the surveillance requirements for lifting devices to ensure all lifting devices for heavy loads (greater than 1750 pounds) are inspected prior to use.

Evaluation

In order to address the specific concern covered by the existing technical specifications on handling heavy loads over or near the spent fuel pool using the overhead crane, the licensee contracted with Ederer Incorporated to modify the auxiliary building rectilinear crane in accordance with the "single-failure-proof" crane design criteria of Section 5.1.6 and Appendix C of NUREG-0612. This modification consists of replacement of the existing bridge trolley with an Ederer designed trolley and associated hoists. The licensee stated that this trolley is comparable to that described in Ederer Incorporated topical report EDR-1(P), "Ederer Nuclear Safety-Related Extra Safety and Monitoring (X-SAM) Cranes," Revision 3. This report describes the design and testing of the "single failure proof" features which are included in Ederer's X-SAM cranes intended for handling spent fuel casks and other heavy loads in a nuclear power plant. The staff previously reviewed the Ederer report and issued a safety evaluation (SE) dated August 3, 1983. In this SE, the staff concluded that the crane design satisfied the criteria for "single-failure-proof" features for compact hoisting equipment and was therefore, acceptable. Thus, as prescribed in the criteria of NUREG-0612, because heavy loads handling over spent fuel will be accomplished using a "single-failure-proof crane," the technical specification restrictions are no longer necessary and can be removed.

8509050226 850903
PDR ADOCK 05000266
P PDR

Based on the above, we conclude that the licensee's proposed changes to Point Beach Units 1 and 2 Technical Specifications 15.3.8 and 15.4.14 and the associated bases meet the guidelines of Section 5.1.6 and Appendix C of NUREG-0612 and are therefore, acceptable.

ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendments involve 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 published a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet 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 these amendments.

CONCLUSION

We have 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 the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: September 3, 1985

Principal Contributor:
R. Anand
T. Colburn