

Docket Nos. 50-266
and 50-301

OCT 5 1983

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

Dear Mr. Fay:

The Commission has issued the enclosed Amendment No. 77 to Facility Operating License No. DPR-24 and Amendment No. 81 to Facility Operating License No. DPR-27 for the Point Beach Nuclear Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated September 30, 1982.

These amendments revise the Technical Specifications to permit location of the spent fuel pool neutron absorber surveillance specimen adjacent to the spent fuel pool divider wall. These amendments also revise limiting conditions for operation of the power operated relief-valves (PORV).

As discussed with members of your staff, we have not approved your requested changes related to PORV and PORV block valve position indication. Specific reasons for our denial of your request are contained in the attached Safety Evaluation.

A copy of the Safety Evaluation is enclosed. The notice of issuance will be included in the next monthly Federal Register notice.

Sincerely,

Original signed by:

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

*Transmitted to
Mr. Colburn
10/10/83
C. W. Fay
10/10/83*

Enclosures:

- 1. Amendment No. 77 to DPR-24
- 2. Amendment No. 81 to DPR-27
- 3. Safety Evaluation

cc w/enclosures:
See next page

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Wisconsin Electric Power Company

cc:

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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. 77
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 September 30, 1982, 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-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. 77, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 20 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


James R. Miller, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 17, 1983



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. 81
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 September 30, 1982, 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.

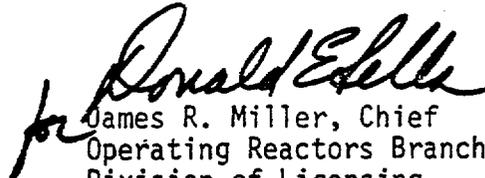
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-27 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 81, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 20 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


James R. Miller, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 17, 1983

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 77 TO FACILITY OPERATING LICENSE NO. DPR-24

AMENDMENT NO. 81 TO FACILITY OPERATING LICENSE NO. DPR-27

DOCKET NO. 50-266 AND 50-301

Revise Appendix A as follows:

Remove Pages

15.3.1-3
15.5.4-1

Insert Pages

15.3.1-3
15.5.4-1

5. Pressurizer Power Operated Relief Valves (PORV) and PORV Block Valves
 - a. Two PORVs and their associated block valves shall be operable.
 - (1) If a PORV is inoperable due to leakage in excess of that allowed in Specification 15.3.1.D, the PORV shall be restored to an operable condition within one hour or the associated block valve shall be closed.
 - (2) If a PORV is inoperable due to a channel functional test failure, the associated PORV control switch shall be placed and maintained in the closed position or the associated block valve shall be closed within one hour.
 - (3) If a PORV block valve is inoperable, the block valve shall be restored to an operable condition within one hour or the block valve shall be closed with power removed from the block valve; otherwise the unit shall be in hot shutdown within the next six hours.
6. The pressurizer shall be operable with at least 100 KW of pressurizer heaters available and a water level greater than 10% and less than 95% during steady-state power operation. At least one bank of pressurizer heaters shall be supplied by an emergency bus power supply.

Basis

When the boron concentration of the reactor coolant system is to be reduced, the process must be uniform to prevent sudden reactivity changes in the reactor. Mixing of the reactor coolant will be sufficient to maintain a uniform boron concentration if at least one reactor coolant pump or one residual heat removal pump is running while the change is taking place. The residual heat removal pump will circulate the primary system volume in approximately one-half hour. The pressurizer is of little concern because of the lower pressurizer volume and because pressurizer boron concentration normally will be higher than that of the rest of the reactor coolant.

Specification 15.3.1.A.1 requires that a sufficient number of reactor coolant pumps be operable to provide core cooling in the event a loss of power occurs. The flow provided in each case will keep DNBR well above 1.30 as discussed in FFDSAR, Section 14.1.9. Therefore, cladding damage and release of fission products to the reactor coolant will not occur. Heat transfer analyses⁽¹⁾ show that reactor heat equivalent to 10% of rated power can be removed with natural circulation only; hence the specified upper limit of 1% rated power without operating pumps provides a substantial safety factor.

Item 14.3.1.A.1.c.(2) permits an orderly reduction in power if a reactor coolant pump is lost during operation between 10% and 50% of rated power.

15.5.4 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

1. The new fuel storage and spent fuel pool structures are designed to withstand the anticipated earthquake loadings as Class I structures. The spent fuel pool has a stainless steel liner to ensure against loss of water.
2. 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 $K_{eff} \leq 0.95$ with the storage pool filled with unborated water and with the fuel loading in the assemblies limited to 44.8 grams of U-235 per axial centimeter of fuel assembly. An inspection area shall allow rotation of fuel assemblies for visual inspection, but shall not be used for storage.
3. The spent fuel storage pool shall be filled with borated water at a concentration of at least 1800 ppm boron whenever there are spent fuel assemblies in the storage pool.
4. Except for the two storage locations adjacent to the designated slot for the spent fuel storage rack neutron absorbing material surveillance specimen irradiation, spent fuel assembly storage locations immediately adjacent to the spent fuel pool perimeter or divider walls shall not be occupied by fuel assemblies which have been subcritical for less than one year.

References:

FSAR Section 9.3



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 77 TO FACILITY OPERATING LICENSE NO. DPR-24
AND AMENDMENT NO. 81 TO FACILITY OPERATING LICENSE NO. DPR-27
WISCONSIN ELECTRIC POWER COMPANY
POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-266 AND 50-301

Background

By a letter dated September 30, 1982, Wisconsin Electric Power Company (licensee) requested a technical specification change which would permit storage of two thermally hot and highly radioactive spent fuel bundles near a divider wall in their spent fuel pool. This will be done in order to accommodate the existing location of a poison surveillance sample. Current technical specifications require that all spent fuel bundles placed adjacent to walls are to have been cooled for one year or more. A technical specification change was therefore requested in order to avoid physical changes which would involve exposure of workers to radiation.

Also included with the licensee's submittal were technical specification changes intended to clarify limiting conditions for operation of the power operated relief valves (PORV) and PORV indication.

Discussion

Spent Fuel Pool Surveillance Specimen

The spent fuel pool divider wall is approximately 5 feet thick reinforced concrete and divides the spent fuel pool transversely. The two bundles in question will heat a very small portion of the wall above ambient temperature. The radiating area from each fuel bundle is approximately 0.7 feet X 12 feet.

The licensee has had a study of the potential structural effects on the divider wall prepared by Bechtel Power Corporation. In this study, it is calculated that the maximum temperature to be expected at a local section of the divider wall is 190°F. This is within the limitations outlined in paragraph CC-3440 of the ASME Boiler and Pressure Vessel Code, Section III, Division 2. Also, it was calculated that the divider wall loads resulting from thermal effects would be insignificant (about 7% of total moment capacity).

The staff agrees that the potential structural effects of placement of two spent fuel bundles close to the divider wall, as described in the licensee's submittals, will be insignificant. Further, the staff finds that the proposed technical specification change meets the applicable requirements of 10 CFR 50, Appendix A with regard to structures and is therefore structurally acceptable.

PORV Operability

Current technical specifications require that if a PORV is inoperable the PORV shall be restored to operation within one hour or the associated block valve shall be shut. The PORV is defined as being operable if leakage past the valve doesn't exceed allowable primary system leakage and if the PORV has met its most recent channel functional test. Shutting the associated block valve removes the PORV from service by isolating it from the reactor coolant system.

In performing the channel functional test, a test signal is inserted into the circuitry to ensure that the pressure bistable operate to open the PORV at its setpoint pressure. Failure of the PORV to meet its channel functional test means that the PORV may not open or reseal at the required reactor coolant system pressure (approximately 2335 psig).

The licensee proposes in the case of a failure of the channel functional test to place the PORV control switch in the closed position rather than shut the PORV block valve. The purpose of this action is to reduce cycling of the PORV block valve. The licensee has stated that placing the PORV control switch in the closed position disables the automatic control circuitry for the PORV operation and the PORV would remain shut regardless of pressure signals sensed by the automatic control circuitry.

We have evaluated the licensee's proposed action and find that the proposed action provides an equivalent protection to that of shutting the block valve; that is, it ensures that spurious PORV openings would not result due to a failure of the channel functional test.

For the requested technical specifications on PORV and PORV block valve indication, the licensee has not provided sufficient justification to relax the allowable time from 48 to 96 hours that indication may be inoperable. While this relaxation may provide increased operational flexibility to the licensee, it also doubles the duration that PORV or PORV block valve indication may be inoperable without providing sufficient compensatory measures. Other indications of PORV opening are available, i.e. pressure relief tank temperature and level, but these indications are not addressed in other technical specification limiting conditions for operation or surveillance requirements.

The staff also disagrees that placing the PORV control switch in the closed position vice closing the PORV block valve is an adequate action upon loss of PORV indication. If indication is unavailable for the PORV, the staff feels that the valve should be removed from service by shutting the block valve. While, in the previously discussed technical specification change, the staff feels that placing the PORV control switch in the closed position performs equivalent protection to shutting the block valve (removing from service the pressure sensing circuitry that has failed its channel functional test), the staff feels that this same action will not provide equivalent protection for loss of PORV indication. The action statement for loss of PORV block valve indication requires shutting the block valve and removing power from it. Placing the PORV control switch in the closed position does not afford this same level of protection for the PORV.

Environmental Consideration

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of the 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:

Principal contributor:

T. Colburn
A. Rothburg