DCS MS-016
See Correction Letter of 7/17/84

APR 30 1984

Docket Nos. 50-266
and 50-301

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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. 84 to Facility Operating License No. DPR-24 and Amendment No. 88 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 December 10, 1981.

These amendments provide limiting conditions for operation relating to instrument power supply system equipment upgrades currently underway at Point Beach Nuclear Plant Units 1 and 2. Installation is scheduled for completion in late-1984.

As discussed with and agreed to by members of your staff via telephone conversation on September 2, 1983 we are changing certain wording on your proposed technical specifications to require all four station batteries and their associated DC systems be operable prior to taking one or both reactors critical. These changes are further discussed in the staff's Safety Evaluation.

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

Sincerely,

Original signed by

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

Enclosures:
1. Amendment No. 84 to DPR-24
2. Amendment No. 88 to DPR-27
3. Safety Evaluation

cc w/enclosures:
See next page

ORB#3:DL	ORB#3:DL	ORB#3:DL	OELD	AD:OR:DL
PMKreutzer	TColburn/pn	JRMiller	RBachmann	GCLainas
4/12/84	4/16/84	4/16/84	4/18/84	4/30/84

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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. 84
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 December 10, 1981, 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. 84 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective upon completion of equipment installation but not later than December 31, 1984.

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: April 30, 1984

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. 88
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 December 10, 1981, 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. 88 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective upon completion of equipment installation but not later than December 31, 1984.

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: April 30, 1984

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 84 TO FACILITY OPERATING LICENSE NO. DPR-24

AMENDMENT NO. 88 TO FACILITY OPERATING LICENSE NO. DPR-27

DOCKET NOS. 50-266 AND 50-301

Revise Appendix A as follows:

Remove Page	Insert Page
15.3.7-1	15.3.7-1
15.3.7-2	15.3.7-2
15.3.7-3	15.3.7-3
15.3.7-4	15.3.7-4
15.3.7-5	15.3.7-5

15.3.7 AUXILIARY ELECTRICAL SYSTEMS

Applicability

Applies to the availability of off-site and on-site electrical power for plant power operation and for the operation of plant auxiliaries.

Objective

To define those conditions of electrical power availability necessary (1) to provide for safe reactor operation, and (2) to provide for the continuing availability of engineered safeguards.

Specification

A.1 Under normal conditions neither one nor both reactors shall be made critical unless the following conditions are met:

a. At least two 345 KV transmission lines are in service.

b. The 345/13.8 KV and the 13.8/4.16 KV station auxiliary transformers associated with the reactor(s) to be taken critical are in service; or one 345/13.8 KV station auxiliary transformer and the associated 13.8/4.16 KV station auxiliary transformer(s) are in service with the gas turbine operating.

c. 480 Volt buses B03 and B04 for the unit(s) to be taken critical are energized.

d. 4160 Volt buses A03, A04, A05, and A06 for the unit(s) to be taken critical are energized.

e. A fuel supply of 11,000 gallons is available; and both diesel generators are operable.

f. All four batteries and their associated DC systems are operable.

g. Four battery chargers are operable with one charger carrying the DC loads of each DC main distribution bus.

A.2 Under abnormal conditions including Black Plant startup, one reactor may be made critical providing the following conditions are met:

a. One 345 KV transmission line is in service; or the gas turbine is operating.

b. The 345/13.8 KV and the 13.8/4.16 KV station auxiliary transformers associated with the unit to be taken critical are in service; or the associated 13.8/4.16 KV station auxiliary transformer is in service and the gas turbine is operating.

c. Reactor power level is limited to 50% rated power until 2 or more transmission lines are restored to service.

d. 480 Volt buses B03 and B04 for the unit to be taken critical are energized.

e. 4160 Volt buses A03, A04, A05, and A06 for the unit to be taken critical are energized.

f. A fuel supply of 11,000 gallons is available; and both diesel generators are operable.

g. All four batteries and their associated DC systems are operable.

h. Four battery chargers are operable with one charger carrying the DC loads of each DC main distribution bus.

B.1 During power operation of one or both reactors, the requirements of 15.3.7.A.1 may be modified to allow the following arrangements of systems and components:

a. If the 345 KV lines are reduced to only one, any operating reactor(s) must be promptly reduced to, and limited to, 50% power. If all 345 KV lines are lost, any operating reactor(s) will be reduced to supplying its auxiliary load, until one or more 345 KV transmission lines are again available.

b. If both 345/13.8 KV auxiliary transformers are out of service and only the gas turbine is operating, only one reactor will remain operating and it will be limited to 50% power. The second reactor will be placed in the hot shutdown condition.

c. If the 13.8/4.16 KV auxiliary transformers are reduced to only one, the reactor associated with the out of service transformer must be placed in the hot shutdown condition.

d. Either bus A03 or A04 may be out of service for a period not exceeding 7 days provided both diesel generators are operable and the associated diesel generator is operating and providing power to the engineered safeguard bus normally supplied by the out of service bus.

e. One diesel generator may be inoperable for a period not exceeding 7 days provided the other diesel generator is tested daily to ensure operability and the engineered safety features associated with this diesel generator shall be operable.

f. One of the batteries D05 or D06 may be inoperable for a period not exceeding 24 hours provided the other three batteries and four battery chargers remain operable with one charger carrying the DC loads of each DC main distribution bus.

g. One of the batteries D105 or D106 may be inoperable for a period not exceeding 72 hours provided the other three batteries and four battery chargers remain operable with one charger carrying the DC loads of each DC main distribution bus.

Basis

This two unit plant has four 345 KV transmission line interconnections. A 20 MW gas turbine generator and two 2850 KW diesel generators are installed at the plant. All of these energy sources will be utilized to provide depth and reliability of service to the Engineered Safeguards equipment through redundant station auxiliary power supply systems.

The electrical system equipment is arranged so that no single contingency can inactivate enough safeguards equipment to jeopardize the plant safety. The 480-volt equipment is arranged on 4 buses per unit. The 4160-volt equipment is supplied from 6 buses per unit.

Separation is maintained in the 4160-volt system to allow the plant auxiliary equipment to be arranged electrically so that redundant items receive their power from the two different buses. For example, the safety injection pumps are supplied from the 4160 volt buses 1-A05 and 1-A06 for Unit No. 1 and 2-A05 and 2-A06 for Unit No. 2; the six service water pumps are arranged on 480-volt buses as follows: two on bus 1-B03, one on bus 1-B04, one on bus 2-B03 and two on bus 2-B04; the four containment fans are divided between 480-volt buses 1-B03 and 1-B04 for Unit No. 1 and 2-B03 and 2-B04 for Unit No. 2 and so forth. Redundant valves are supplied from motor control centers 1-B32 and 1-B42 for Unit No. 1 and 2-B32 and 2-B42 for Unit No. 2.

The plant DC electrical system has been modified so that each of the four instrument bus power supplies has its own battery and battery chargers. One battery charger shall be in service on each battery so that the batteries will always be at full charge in anticipation of a loss-of-ac power incident. This insures that adequate dc power will be available for starting the emergency generators and other emergency uses.

The emergency generator sets are General Motors Corporation, Electro-Motive Division, Model 999-20 Units rated at 2850 KW continuous, 0.8 power factor 900 RPM, 4160 volts 3 phase, 60 cycle and consume 205 gallons of fuel per hour. Thus the 11,000 gallon supply in the Emergency Fuel Tank provides sufficient fuel to operate one diesel at design load for more than 48 hours. In addition, it will be normal for Point Beach to keep one, or the equivalent of one, bulk storage tank full at all times (55,000 gal. which is equal to about 10 days' supply). They are each capable of providing 3050 kw for a 30 minute period. The gas turbine is capable of providing 20,000 kw.

If only one 345KV transmission line is in service to the plant switchyard, a temporary loss of this line would result in a reactor trip(s) if the reactor(s) power level were greater than 50%. Therefore, in order to maintain continuity of service and the possibility of self sustaining operations, if less than one 345KV transmission line is in service to any operating reactor(s), the power level of the affected reactor(s) will be limited to 50%.

If both 345/13.8KV station auxiliary transformers are out of service, only one reactor will be operated. The gas turbine will be supplying power to operate the safeguards auxiliaries of the operating reactor and acts as a backup supply for that unit's normal auxiliaries. Therefore, to prevent overloading the gas turbine in the event of a reactor trip, the maximum power level for the operating reactor will be limited to 50%. These conservative limits are set to improve transmission system reliability only and are not dictated by safety system requirements.

References

FSAR Section 8.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 84 TO FACILITY OPERATING LICENSE NO. DPR-24

AND AMENDMENT NO. 88 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

Introduction

By letter dated December 10, 1981, Wisconsin Electric Power Company propqsed an amendment to Facility Operating Licenses, DPR-24 and DPR-27; the subject change involves Section 15.3.7, Auxiliary Electrical Systems, of the Technical Specifications for Point Beach. The licensee has proposed to amend Section 15.3.7 to reflect modifications presently underway to the vital instrument power supplies.

Discussion

By letter dated April 21, 1980, NRR transmitted an SER on a modification to the instrument power supplies at Point Beach Nuclear Plant Units 1 and 2. The modification was designed to correct an unacceptable arrangement of sources discovered during the safety evaluation of the plant changes that resulted from IE Bulletin No. 79-06A, dated April 14, 1979. The conclusion to the SER for the modification stated that, although the modification was an improvement over original design, it still did not satisfy the requirements of IEEE 279-1971. Therefore, the finding was that the modification was acceptable only as an interim modification and that a suitable alternate design should be provided for review.

The licensee responded by letter dated May 29, 1980, describing a proposed modification, which included the installation of two new batteries and three new battery chargers, which would provide essentially a duplication of the existing system. Proposed completion date for the modification was given as January 1, 1981, contingent upon availability of required equipment. NRR found the proposed modification acceptable and forwarded their SER by letter dated August 12, 1981. The licensee later amended the completion date to June 30, 1982, due to the necessity of building new seismically designed rooms to house the new components. By letter dated December 10, 1981, the licensee submitted proposed Technical Specification changes to reflect the modifications underway. At the conclusion of that letter the licensee requested "that the Commission withhold issuance of these amendments until after licensee has provided a written notification that the subject instrumentation bus power supply modification has been completed." Through discussions with the licensee and by letter dated March 5, 1984, it has been determined that the present planned modification completion date is October 31, 1984.

Evaluation

The proposed Technical Specification changes are not significant in that the modification is essentially a duplication of the existing system. Therefore, no change was required to the surveillance Technical Specification, 15.4.6.B. The changes in specification 15.3.7.B.1.f and the bases are for clarification purposes only.

A new specification, 15.3.7.B.1.g., has been added to allow one of the new batteries, D105 or D106, to be out of service for up to 72 hours, provided four battery chargers are operable and carrying the DC loads of each main DC distribution bus. The licensee justified the longer permissible out of service time, 72 versus 24 hours, for the new batteries over the old by stating that the new batteries will not be providing any DC breaker control power. This LCO was patterned after the McGuire Technical Specification 3.8.2.3. McGuire's DC distribution system is composed of four batteries and five full capacity battery chargers. The licensee's new system will be composed of four batteries and six full capacity battery chargers. Two of the chargers are installed spares either of which can supply one of its two associated battery buses. This provides an added degree of redundancy over the McGuire design. Therefore, we find the 72 hour LCO acceptable.

The final proposed changes are a revision to 15.3.7.A.1.f and a new specification 15.3.7.A.1.g. These same changes are also incorporated in Section 15.3.7.A.2. The revisions to 15.3.7.A.1.f and 15.3.7.A.2.g are for clarification purposes. The new proposed sections, 15.3.7.A.1.g and 15.3.7.A.2.h, would allow a unit to be taken critical with one of the new batteries, D105 or D106, inoperable. This would allow the licensee to make a mode change which would then place him in the LCO. We found these two new proposed sections unacceptable. Alternative wording for these sections which would require all four batteries and their associated DC systems to be operable and four battery chargers to be operable, with one charger carrying the DC loads of each DC main distribution bus, prior to taking a unit critical, was proposed to the licensee. The new wording was accepted by both the corporate licensing coordinator and the manager's supervisory staff.

We find that the licensee's proposal, as modified, to change Technical Specification 15.3.7, to reflect modifications presently underway to the vital instrument power supplies, is acceptable.

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

Date: April 30, 1984

Principal Contributors:
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