

September 23, 1994

Docket Nos. 50-266
and 50-301

Mr. Robert E. Link, Vice President
Nuclear Power Department
Wisconsin Electric Power Company
231 West Michigan Street, Room P379
Milwaukee, Wisconsin 53201

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Dear Mr. Link:

SUBJECT: AMENDMENT NOS. 152 AND 156 TO FACILITY OPERATING LICENSE NOS.
DPR-24 AND DPR-27 - POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2
(TACS NO. M87865 AND M87866)

The Commission has issued the enclosed Amendment Nos. 152 and 156 to Facility Operating License Nos. DPR-24 and DPR-27 for the Point Beach Nuclear Plant, Unit Nos. 1 and 2. The amendments revise the Technical Specifications in response to your application dated May 26, 1994, as supplemented on July 11, 1994, and August 1, 1994.

Point Beach Nuclear Plant is installing two additional emergency diesel generators and reconfiguring portions of the 4160-Volt emergency electrical power system. The amendment revised the Point Beach Nuclear Plant Technical Specifications (TS) to establish the requirements for the electrical systems at Point Beach such that the TS will provide the appropriate guidance for all interim configurations and the final configuration. The majority of changes are incorporated in TS Section 15.3.7, "Auxiliary Electrical Systems." Other Sections modified are 15.3.0, "General Considerations," 15.3.14, "Fire Protection System," and 15.4.6, "Emergency Power System Periodic Tests."

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

Sincerely,

ORIGINAL SIGNED BY
Allen G. Hansen, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

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Enclosures:

1. Amendment No. 152 to DPR-24
2. Amendment No. 156 to DPR-27
3. Safety Evaluation

cc w/enclosures:
See next page

LA: PD3-3 Intern: PD3-3
MRushbrook GDentel/gd/bam
8/25/94 8/25/94

PM: PD3-3 SPLB
AHansen CMcCracken
8/30/94 9/1/94

D: PD3-3 OGC-OWF
JHannon
9/23/94 9/5/94

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

WISCONSIN ELECTRIC POWER COMPANY

DOCKET NO. 50-266

POINT BEACH NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 152
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 May 26, 1994, as supplemented on July 11, 1994, and August 1, 1994, 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. 152, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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3. This license amendment is effective immediately upon issuance. The Technical Specifications are to be implemented within 45 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Allen G. Hansen, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: September 23, 1994



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

WISCONSIN ELECTRIC POWER COMPANY

DOCKET NO. 50-301

POINT BEACH NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 156
License No. DPR-27

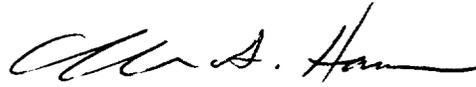
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Wisconsin Electric Power Company (the licensee) dated May 26, 1994, as supplemented on July 11, 1994, and August 1, 1994, complies with the standards and requirements of the Atomic Energy Act 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. 156, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective immediately upon issuance. The Technical Specifications are to be implemented within 45 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Allen G. Hansen, Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: September 23, 1994

Mr. Robert E. Link
Wisconsin Electric Power Company

Point Beach Nuclear Plant
Unit Nos. 1 and 2

cc:

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ATTACHMENT TO LICENSE AMENDMENT NOS. 152 AND 156
TO FACILITY OPERATING LICENSE NOS. DPR-24 AND DPR-27
DOCKET NOS. 50-266 AND 50-301

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

REMOVE

TS 15.3.0-3

TS 15.3.0-4

TS 15.3.7-1 through
TS 15.3.7-7 (7 pages)

Table 15.3.14-1

TS 15.4.6-2

INSERT

TS 15.3.0-3

TS 15.3.0-4

TS 15.3.7-1 through
TS 15.3.7-8 (8 pages)

Table 15.3.14-1

TS 15.4.6-2

Specification 15.3.0.C delineates additional conditions which must be satisfied to permit operation to continue, consistent with the Limiting Condition for Operation statements for power sources, when a normal or standby emergency power source is not operable. It specifically prohibits operation when one system, subsystem, train, component or device is inoperable because its normal or standby emergency power source is inoperable and a redundant system, subsystem, train, component or device is inoperable for another reason.

The provisions of this specification permit the action statements associated with individual systems, subsystems, trains, components, or devices to be consistent with the action statements of the associated electrical power source. It allows operation to be governed by the time limits of the action statement associated with the Limiting Condition for Operation for the normal or standby emergency power source, not the individual action statements for each system, subsystem, train, component or device determined to be inoperable solely because of the inoperability of its normal or standby emergency power source.

For example, Specifications 15.3.7.B.1.f, g, and h allow a 7 day out-of-service time for the normal or standby emergency power source for the appropriate buses. If the definition of operable were applied without consideration of Specification 15.3.0.C., all systems, subsystems, trains, components or devices supplied by the inoperable normal or standby emergency power source would also be inoperable. This would invoke the applicable action statements for each of the applicable LCO. However, the provisions of Specification 15.3.0.C permit the time limits for continued operation to be consistent with the statement for the inoperable normal or standby emergency power source instead, provided the other specified conditions are satisfied. In this case, all redundant systems, subsystems, trains, components, and devices must be operable, or otherwise satisfy Specification 15.3.0.C (i.e., be capable of performing their design function and have at least one normal or one standby emergency power source operable). If these conditions are not satisfied, shutdown is required in accordance with Specification 15.3.0.A.

Unit 1 - Amendment No. 30, 152 15.3.0-3

Unit 2 - Amendment No. 30, 156

As a further example, Specification 15.3.7.A.1.c requires in parts that 4160-volt buses A03 and A04 be energized for the unit to be taken critical. Specifications 15.3.7.B.1.f, g, and h permit the normal safeguard power source (either bus A03 or A04) to be taken out of service for up to seven days provided normal and standby emergency power to the other required buses are operable and a diesel generator is operating and providing power to the engineered safeguard bus normally supplied by the out-of-service bus. If the definition of operable were applied without consideration of Specification 15.3.0.C, all systems, subsystems, trains, components, and devices supplied by the inoperable normal power sources (i.e., the out-of-service bus A03 or A04) would also be inoperable. This would invoke the applicable action statements for each of the applicable LCOs. However, the provisions of this Specification 15.3.0.C permit the time limit for continued operation to be consistent with the action statement for the inoperable normal power source, in this case seven days, provided the other specified conditions are satisfied. These conditions are that for the engineered safeguards systems on the other required buses the standby emergency power source must be operable (as must be the components supplied by the standby emergency power source) and all redundant systems, subsystems, trains, components and devices in the other engineered safeguards systems must be operable, or likewise satisfy Specification 15.3.0.C (i.e., be capable of performing their design function and have an emergency power source operable). In other words, the required standby emergency power sources must be operable and all redundant systems, subsystems, trains, components and devices in both divisions of engineered safeguards systems must also be operable. If these conditions are not satisfied, shutdown is required in accordance with this specification.

In the cold shutdown and refueling shutdown conditions, Specification 15.3.0.C is not applicable, and thus the individual action statements for each applicable LCO in these conditions must be adhered to.

Specification 15.3.0.D addresses the momentary loss of power to a component when immediate action is initiated resulting in reenergization from an alternate source, tripping the channel of logic or initiating operator action as specified in Table 15.3.5-2. Such a situation does

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. 4160 Volt unit supply buses A03 and A04 for the unit to be taken critical are energized from their normal supply.
 - d. Both units' A05/A06 bus tie-breakers are removed from their cubicles.
 - e. Both units' B03/B04 bus tie-breakers are open with control power removed.
 - f. A fuel supply of 11,000 gallons is available in each tank which is being relied upon to supply any operable emergency diesel generator(s).
 - g. Four of the five safety-related station batteries and all four of the main DC distribution systems are operable.
 - h. Four battery chargers are operable with one charger carrying the DC loads on each main DC distribution bus: D01, D02, D03 and D04.
 - i. 120 VAC Vital Instrument Buses Y01, Y02, Y03, Y04, Y101, Y102, Y103, and Y104 for the unit(s) to be taken critical are energized from a safety-related inverter.
 - j. For both units to be made critical, the normal power supply and a standby emergency power supply to all the 4160/480 Volt safeguards buses shall be operable and the buses are energized from their normal supply.

- k. For Unit 1 to be made critical, the normal power supply and a standby emergency power supply to the 4160/480 Volt safeguards buses Unit 1 A05/B03, Unit 1 A06/B04, and Unit 2 A06/B04 shall be operable and the buses are energized from their normal supply.
 - l. For Unit 2 to be made critical, the normal power supply and a standby emergency power supply to the 4160/480 Volt safeguards buses Unit 2 A05/B03, Unit 2 A06/B04, and Unit 1 A05/B03 shall be operable and the buses are energized from their normal supply.
- 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. With a unit in cold or refueling shutdown or defueled, one pair of buses, A05 and A06 or B03 and B04, for that shutdown unit, may be tied together through their common tie breaker for up to 8 hours provided the required redundant decay heat removal in the shutdown unit and the required redundant shared engineered safety features for the other unit are operable. If the tie breaker cannot be opened or the conditions of 15.3.7.B.1.e met within 8 hours, the operating unit shall be placed in the hot shut-down condition within 6 hours and in cold shutdown within the following 30 hours.
 - e. With a unit defueled, one pair of buses for the defueled unit, A05 and A06 or B03 and B04, may be tied together through their common tie-breaker in excess of 8 hours provided:
 - 1) An evaluation is performed to show that the loads that remain or can be energized by the buses will not cause a potential overload of the

associated diesel generator. The applicable Limiting Conditions for Operation of the equipment removed from service shall be entered for the operating unit.

- 2) A single train of spent fuel cooling is adequate to cool the spent fuel pool.
 - 3) The required redundant shared engineered safety features for the other unit are operable.
- f. The normal power supply or standby emergency power supply to Unit 1 A05/B03 or Unit 2 A06/B04 may be out-of-service for a period not exceeding 7 days provided the required redundant engineered safety features are operable and the required redundant standby emergency power supplies are started within 24 hours before or after entry into this LCO and every 72 hours thereafter. If the normal power supply is out-of-service, an operable emergency diesel generator is supplying the affected 4160/480 Volt buses. After 7 days, both units will be placed in hot shutdown within the following 6 hours and cold shutdown within 36 hours.
- g. The normal power supply or standby emergency power supply to Unit 1 A06/B04 or Unit 2 A05/B03 or both may be out-of-service for a period not exceeding 7 days provided the required redundant engineered safety features are operable and the required redundant standby emergency power supplies are started within 24 hours before or after entry into this LCO and every 72 hours thereafter. If the normal power supply is out-of-service, an operable emergency diesel generator is supplying the affected 4160/480 Volt buses. After 7 days, the affected unit or units will be placed in hot shutdown within the following 6 hours and cold shutdown within 36 hours.
- h. The normal power supply or standby emergency power supply to Unit 1 A05/B03 and Unit 2 A05/B03, or Unit 1 A06/B04 and Unit 2 A06/B04 may be out-of-service for a period not exceeding 7 days provided the required redundant engineered safety features are operable and the required redundant standby emergency power supplies are started within 24 hours before or after entry into this LCO and every 72 hours thereafter. If the normal power supply is out-of-service, an operable emergency diesel

generator is supplying the affected 4160/480 Volt buses. After 7 days, both units will be placed in hot shutdown within the following 6 hours and cold shutdown within 36 hours.

- i. One of the four connected safety-related station batteries may be inoperable for a period not exceeding 24 hours provided four battery chargers remain operable with one charger carrying the DC loads of each main DC distribution bus.
- j. If an operating safety-related inverter is rendered inoperable and the associated loads transfer to a non-safety-related power source, the loads shall be transferred back to an operable safety-related inverter within 8 hours or be in hot shutdown within an additional 6 hours and cold shutdown within 44 hours of inverter inoperability.
- k. If any safeguards bus is deenergized, the applicable LCOs will be entered for the affected equipment.

Basis

This two unit plant has four 345 KV transmission line interconnections. A 20 MW gas turbine generator, two original and two additional 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.

Two separate outside sources can serve either unit's low voltage station auxiliary transformer. One is a direct feed from the unit's high voltage station auxiliary transformer and the second is from the other unit's high voltage station auxiliary transformer or the gas turbine via the 13,800 volt system tie bus H01. The normal power supplies for the A05 and A06 buses are the A03 and A04 buses, respectively.

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

Unit 1 - Amendment No. ~~84, 87, 124~~ 15.3.7-4
~~148, 152~~

Unit 2 - Amendment No. ~~88, 92, 138,~~
~~132, 156~~

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 specifications for the 480 volt safeguards buses, B03 and B04, and the 4160 volt safeguards buses, A05 and A06, direct an independent lineup of power distribution, specifically stating that a normal lineup must be achieved (all safeguards buses associated with a unit are powered through their normal supply breaker with all safeguards bus tie-breakers open) prior to taking a unit critical and during subsequent power operation. Operability of the safeguards buses is based on maintaining at least one train of on-site emergency power operable during accident conditions coincident with an assumed loss of offsite power and a single failure in the other train of on-site emergency power. This includes a failure of a tie-breaker to trip, which under certain conditions could result in an overload and a loss of the associated diesel generator. The LCOs permit abnormal electrical distribution lineups for periods of time in order to facilitate such items as maintenance of normal supply breakers or transformers. In such cases, bus independence may be relaxed under the conditions specified in the LCO.

Extended use of safeguards bus tie-breakers is allowed under specified, controlled conditions. For example, when a unit is fully defueled, safeguards and safe shutdown systems and equipment dedicated to that unit are not required. However, spent fuel pool cooling must be maintained. By limiting the loads supplied by the cross-connected buses, the potential for loss of a diesel generator due to overloading caused by the failure of a tie-breaker to open is minimized. Operability of shared safeguards systems such as auxiliary feedwater and service water must be maintained as required by their applicable LCOs.

The bus tie-breaker specifications have provisions that the required redundant decay heat removal for the shutdown unit and the required redundant shared engineered safety features for the other unit are operable. The specification that applies only to the defueled condition does not have the provision for the required redundant decay heat removal for the shutdown unit. It has provision

Unit 1 - Amendment No. ^{84, 87, 134}_{130, 138, 152} 15.3.7-5
Unit 2 - Amendment No. ^{88, 92, 138}_{140, 132, 156}

for verifying the adequacy of a single train of spent fuel pool cooling in lieu of the consideration of decay heat removal for a reactor in cold shutdown.

The Point Beach DC electrical system has been modified so that each of the four main DC distribution buses, which are shared between the two units, has its own power supplies consisting of a safety-related station battery (D05, D06, D105, D106) and a battery charger. In addition to these bus-specific power supplies, a swing safety-related battery (D305) is installed which is capable of being connected to any one of the four main DC distribution buses. Swing battery chargers are also provided. Under normal circumstances, one battery and one battery charger are connected in each main DC distribution bus. The battery charger normally 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. Under unusual circumstances, two of the five safety-related batteries may be out of service for a limited period of time provided one of the two out-of-service batteries is returned to service within the time periods specified in Specification 15.3.7.B.1.i. These limiting conditions for operation ensure that adequate DC power will always be available for starting the emergency generators and other emergency uses.

The emergency diesel generators are the sources of standby emergency power. The support systems necessary to be operable to ensure the operability of the emergency diesel generators (EDGs) are the EDG starting air system, EDG fuel oil system, EDG ventilation system, and EDG DC control power. The standby emergency power supply for a 4160 Volt and associated 480 Volt safeguards bus consists of an operable EDG, including all required support systems, and an operable output breaker to that 4160 Volt safeguards bus.

The LCOs for the standby emergency power supplies require the redundant standby emergency power supplies to be started within 24 hours of entry into these LCOs. If the standby emergency power supply LCO is exited within 24 hours, then starting of the redundant standby emergency power supplies is not required. If the LCO was entered due to a standby emergency power supply failure and the LCO was exited within 24 hours, then an evaluation must be completed as soon as possible within 24 hours of entry into the LCO to show that the redundant standby power supplies are not susceptible to that failure by common cause or the

redundant standby emergency power supplies must be started to prove that failure by common cause does not exist within 24 hours of entry into the LCO.

The EDG starting air system is considered operable when 1) all starting air bottles in each bank are operable, 2) the starting air banks can be maintained at a minimum pressure of 165 psig, 3) the air bank crossconnect valve is shut unless bank pressures are being equalized and an operator is stationed at the valve during pressure equalization, and 4) all four starting air motors and their associated valves and relays are operable.

The EDG fuel oil system is considered operable when 1) 11,000 gal. of fuel oil is initially available in the fuel oil storage tank which supplies the diesel generators [Because the EDGs consume approximately 205 gallons of fuel per hour when fully loaded, the 11,000 gallon fuel supply in the emergency fuel tank provides sufficient fuel to operate one EDG at design load for more than 48 hours.], 2) the EDG day tank for that EDG is operable and for G-01 and G-02 the associated motor-operated fill valve is operable, 3) for G-01 and G-02, at least one of the two base-mounted sump tank fuel oil transfer pumps is operable, and 4) the fuel oil transfer system associated with the EDG is operable. However, the fuel oil transfer system is allowed to be out-of-service for four hours for G01 and G-02 due to a combined four-hour supply of fuel oil in the diesel base and day tanks which do not require a fuel oil transfer pump for flow to the associated EDG. The fuel oil transfer system is allowed to be out-of-service for two hours for G-03 and G-04 due to a two-hour supply of fuel oil in the day tank. The transfer system may be out of service for longer periods if an appropriate alternate source of fuel is made available to the diesel generators.

The EDG ventilation system is considered operable when diesel room temperature can be maintained $\leq 120^{\circ}\text{F}$ with the diesel engine operating at full load. Temperature will be maintained $\leq 120^{\circ}\text{F}$ if 1) all gravity-operated louvers are operable, and 2) both diesel room exhaust fans are operable OR for G-01 and G-02; one diesel room exhaust fan is operable and outside air temperature is $\leq 80^{\circ}\text{F}$.

Normal DC control power must energize all DC circuits for the associated EDG to be operable.

The original AEC Safety Evaluation for PBNP states, "Onsite fuel storage capacity is sufficient for a minimum of seven days' operation of the required safety feature loads which is acceptable." Therefore, to satisfy this requirement, at least 34,500 gallons of fuel oil will be maintained available for the emergency diesel generators at Point Beach at all times when EDG operability is required.

If only one 345 KV 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 only one 345 KV 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 345/13.8 KV station auxiliary transformers are out of service, only one reactor will be operated. The gas turbine will be supplying power to operate safeguards auxiliaries of the operating reactor and acts as a backup supply for the 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.

TABLE 15.3.14-1
SAFE SHUTDOWN AREA FIRE PROTECTION

AREA	ELEVATION	AUTOMATIC SUPPRESSION		MANUAL SUPPRESSION	FIRE DETECTION
		WATER SPRINKLER SYSTEM	GAS SUPPRESSION SYSTEM	FIRE HOSE STATION	
1. Auxiliary Building South	8'	(X) Partial		X	15
2. Auxiliary Building Center A. Safety Injection Pumps B. Component Cooling Water Pump	8'	X X		X	13
3. Auxiliary Building North	8'	(X) Partial		X	9
4. Auxiliary Building West	8' & Below			X	16
5. Auxiliary Building South	26'			X	3
6. Auxiliary Building Center	26'			X	17
7. Auxiliary Building North	26'			X	7
8. Auxiliary Building Center	46'			X	6
9. Auxiliary Feedwater Pump Room	8'		X	X	11
10. Vital Switchgear & Battery Room	8'		X	X	8
11. G01 Diesel Generator Room	8'	X		X	4
12. G02 Diesel Generator Room	8'	X		X	4
13. Cable Spreading Room	26'		X	X	17
14. Circulating Water Pumphouse A. Service Water Pumps	8'	X		X	15
15. G03 Diesel Generator Room	28'	X		X*	3
16. G04 Diesel Generator Room	28'	X		X*	3
17. G03 Vital Switchgear Room	28'			X*	2
18. G04 Vital Switchgear Room	28'			X*	2
19. G03 Fuel Oil Day Tank Room	28'	X		X*	1
20. G04 Fuel Oil Day Tank Room	28'	X		X*	1

*Diesel Generator Building fire hose stations are located in Mechanical Equipment Room.

Unit 1 - Amendment No. ~~118~~, 152

Unit 2 - Amendment No. ~~121~~, 156

3. The proper operation of Emergency Lighting, including the automatic transfer switch for DC lights, will be demonstrated during each reactor shutdown for a major fuel reloading.
4. Each diesel generator shall be given inspections following the manufacturer's recommendations for this class of stand-by service.
5. Operability of the diesel fuel oil system shall be verified monthly.
6. A diesel fuel oil testing program shall be maintained to test both new fuel oil upon receipt and fuel oil stored in the fuel oil storage tanks which supply the emergency diesel generators on a quarterly frequency in accordance with applicable ASTM standards.

The above tests will be considered satisfactory if all applicable equipment operates as designed.

B. Safety-Related Station Batteries

These surveillance specifications are applicable to all four safety-related station batteries: D05, D06, D105, and D106; and the safety-related station swing battery D305.

1. Every month the voltage of each cell (to the nearest 0.05 volt), the specific gravity and temperature of a pilot cell in each battery and each battery voltage shall be measured and recorded.
2. Every 3 months the specific gravity, the height of electrolyte, and the amount of water added, for each cell, and the temperature of every fifth cell, shall be measured and recorded.
3. At each time data is recorded, new data shall be compared with old to detect signs of abuse or deterioration.
4. Each Safety-Related Station Battery shall be demonstrated OPERABLE:
 - a. At least once per 18 months (SERVICE TEST) by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status all of the actual or simulated emergency loads for the design duty cycle.
 - b. At least once per 60 months (PERFORMANCE TEST) by verifying that the battery capacity is at least 80% of the manufacturer's rating. This performance discharge test may be performed in lieu of the battery service test.

Unit 1 - Amendment No. 2, 110, 126, 141, 148, 152 15.4.6-2

Unit 2 - Amendment No. 2, 113, 130, 140, 143, 132, 156



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 152 AND 156 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

1.0 BACKGROUND

By letter dated May 26, 1994, as supplemented on July 11, 1994, and August 1, 1994, Wisconsin Electric Power Company (WEPCo), the licensee, proposed to modify the Point Beach Nuclear Plant (PBNP), Units 1 and 2, Technical Specifications (TS) Sections 15.3.0, "Limiting Conditions for Operation," 15.3.7, "Auxiliary Electrical Systems," 15.3.14, "Fire Protection System," and 15.4.6, "Emergency Power System Periodic Tests." The changes are related to the addition of two emergency diesel generators (EDGs).

2.0 EVALUATION

WEPCo is adding two EDGs to Point Beach Nuclear Plant, Units 1 and 2, and reconfiguring portions of the 4160-Volt emergency electrical power system. The first connection of the output of one of the additional emergency diesel generators into the existing electrical system is expected to take place during the fall, 1994 Unit 2 refueling outage, which is presently scheduled to start on September 24, 1994.

The proposed amendment to the TS establishes the requirements for the electrical systems at Point Beach such that the TS will provide the appropriate guidance for all interim electrical configurations and the final configuration.

2.1 TS 15.3.0 General Considerations, Limiting Conditions for Operation, (Bases Only)

The Bases section of TS 15.3.0 is changed to include the appropriate references to TS 15.3.7 and the nomenclature used for the onsite emergency AC power source is changed from "emergency diesel generator" or "emergency power source" to "standby emergency power supply." This nomenclature provides a consistent method to specify the Technical Specification requirements.

Based on the staff's concerns regarding their proposed common cause failure evaluation, PBNP modified the TS Bases to include the following:

The LCOs for the standby emergency power supplies require the redundant standby emergency power supplies to be started within 24 hours of entry into these LCOs. If the standby emergency power supply LCO is exited within 24 hours, then starting of the redundant standby emergency power supplies is not required. If the LCO was entered due to a standby emergency power supply failure and the LCO was exited within 24 hours, then an evaluation must be completed as soon as possible within 24 hours of entry into the LCO to show that the redundant standby power supplies are not susceptible to that failure by common cause or the redundant standby emergency power supplies must be started to prove that failure by common cause does not exist within 24 hours of entry into the LCO.

This provides clarification regarding the requirements for a common cause failure evaluation. Therefore, the staff finds the changes acceptable.

2.2 TS 15.3.7 Auxiliary Electrical Systems

2.2.1 TS 15.3.7.A.1.d, e, and f

The Limiting Conditions for Operation for the 4160-Volt (A05 and A06) and 480-Volt (B03 and B04) safeguards buses and the emergency diesel generators (standby emergency power supplies) are changed to specify the requirements for making one or both reactors critical by combining parts of the requirements of TS 15.3.7.A.1.d and e and placing them into separate specifications (TS 15.3.7.A.1.j, k, and l). Also, the fuel oil storage requirement in TS 15.3.7.A.1.f is being clarified to require 11,000 gallon of fuel oil in each tank that is being relied upon to supply an operable emergency diesel generator(s).

This change is an improvement over the existing Technical Specification requirements because it provides the proper Technical Specification requirements for the electrical system when one or both reactors are made critical. Therefore, the change is acceptable.

TS 15.3.7.A.1.j, k, and l are added to replace the requirements previously contained in TS 15.3.7.A.1.d, e and f. These additions are as follows:

- j. For both units to be made critical, the normal power supply and a standby emergency power supply to all the 4160/480 Volt safeguards buses shall be operable and the buses are energized from their normal supply.
- k. For Unit 1 to be made critical, the normal power supply and a standby emergency power supply to the 4160/480 Volt safeguards buses Unit 1 A05/B03, Unit 1 A06/B04, and Unit 2 A06/B04 shall be operable and the buses are energized from their normal supply.

1. For Unit 2 to be made critical, the normal power supply and a standby emergency power supply to the 4160/480 Volt safeguards buses Unit 2 A05/B03, Unit 2 A06/B04, and Unit 1 A05/B03 shall be operable and the buses are energized from their normal supply.

These changes combine the requirements for normal and standby emergency power and places these requirements in separate specifications for making Unit 1, Unit 2, and both reactors critical. The new requirements remain consistent with the previous requirements while incorporating the addition of two diesel generators. Therefore, the staff finds the changes acceptable.

Also, the 11,000-gallon fuel oil storage requirement is being clarified, and the wording of TS 15.3.7.A.1.f is revised to read as follows:

- f. A fuel supply of 11,000 gallons is available in each tank which is being relied upon to supply any operable emergency diesel generator(s).

The change is administrative in nature and provides clarification. Therefore, the staff finds the change acceptable.

TS 15.3.7.A.2 which previously allowed one reactor to be critical without offsite power or with only one transmission line in service is removed entirely. Since the construction of Point Beach, additional power generation facilities have been added to the PBNP system, such as additional combustion turbines. Current offsite power system recovery would be initiated by using sources of power other than Point Beach, so this specification is no longer considered necessary. Therefore, the staff finds the change acceptable.

2.2.2 TS 15.3.7.B.1.d and g

The requirements of TS 15.3.7.B.1.d and g are being placed into the new TS 15.3.7.B.1.f, g, and h.

The new TS 15.3.7.B.1.f, g, and h incorporate the requirements of TS 15.3.7.B.1.d by specifying the requirements for normal power to be operable for each unit with consideration of the shared equipment that is powered from buses on the opposite unit.

The new TS 15.3.7.B.1.f, g, and h incorporate the requirements of TS 15.3.7.B.1.g by specifying the requirements for standby emergency power to be operable for each unit with consideration of the shared equipment that is powered from buses on the opposite unit, the requirements for redundant engineered safety features to be operable, and the requirements for redundant emergency power supplies to be tested within 24-hours of entry into any of these LCOs and every 72-hours thereafter.

The associated 480-Volt bus designations are being included to maintain consistency with the new TS 15.3.7.A.1.j, k, and l. This also makes these Specifications more complete and accurate for the AC power distribution system requirements.

The requirement of TS 15.3.7.B.1.g which states, "This LCO shall not be allowed in conjunction with e. or f. above" is no longer necessary. The cross-tie TS 15.3.7.B.1.e (being redesignated TS 15.3.7.B.1.d) for an 8-hour LCO is being changed to include the statement, "The required redundant shared engineered safety features for the other unit are operable." This statement alone provides the appropriate guidance for all the required redundant shared equipment, including the emergency diesel generators.

This change also applies to the cross-tie specification for the defueled condition, TS 15.3.7.B.1.f being redesignated 15.3.7.B.1.e. Therefore, the statement, "This LCO shall not be allowed in conjunction with e. or f. above" is no longer necessary.

The new TS 15.3.7.B.1.f, g, and h will be as follows:

- f. The normal power supply or standby emergency power supply to Unit 1 A05/B03 or Unit 2 A06/B04 may be out of service for a period not exceeding 7 days provided the required redundant engineered safety features are operable and the required redundant standby emergency power supplies are started within 24 hours before or after entry into this LCO and every 72 hours thereafter. If the normal power supply is out of service, an operable emergency diesel generator is supplying the affected 4160/480 Volt buses. After 7 days, both units will be placed in hot shutdown within the following 6 hours and cold shutdown within 36 hours.
- g. The normal power supply or standby emergency power supply to Unit 1 A06/B04 or Unit 2 A05/B03 or both may be out of service for a period not exceeding 7 days provided the required redundant engineered safety features are operable and the required redundant standby emergency power supplies are started within 24 hours before or after entry into this LCO and every 72 hours thereafter. If the normal power supply is out of service, an operable emergency diesel generator is supplying the affected 4160/480 Volt buses. After 7 days, the affected unit or units will be placed in hot shutdown within the following 6 hours and cold shutdown within 36 hours.

- h. The normal power supply or standby emergency power supply to Unit 1 A05/B03 and Unit 2 A05/B03, or Unit 1 A06/B04 and Unit 2 A06/B04 may be out of service for a period not exceeding 7 days provided the required redundant engineered safety features are operable and the required redundant standby emergency power supplies are started within 24 hours before or after entry into this LCO and every 72 hours thereafter. If the normal power supply is out of service, an operable emergency diesel generator is supplying the affected 4160/480 Volt buses. After 7 days, both units will be placed in hot shutdown within the following 6 hours and cold shutdown within 36 hours.

The new requirements described above in the safety evaluation section 2.2.2 remain consistent with the previous requirements while incorporating the addition of two diesel generators. Therefore, the staff finds the changes acceptable.

2.2.3 TS 15.3.7.B.1.e and f

TS 15.3.7.B.1.e is changed to TS 15.3.7.B.1.d, the applicability for defueled condition is added, and the reference is changed from TS 15.3.7.B.1.f to TS 15.3.7.B.1.e.

As described previously, TS 15.3.7.B.1.d is being deleted. Therefore, the TS 15.3.7.B.1.e is being redesignated TS 15.3.7.B.1.d. The applicability to the defueled condition is being added because this specification was always applicable to the defueled condition by reference to TS 15.3.7.B.1.f. Therefore, the inclusion of the applicability for the defueled condition is a clarification.

TS 15.3.7.B.1.f is changed to TS 15.3.7.B.1.e.

As described previously, TS 15.3.7.B.1.d is deleted. Therefore, the TS 15.3.7.B.1.f is being redesignated TS 15.3.7.B.1.e.

Both of these TS are changed to incorporate the requirement from TS 15.3.7.B.1.g which states, "This LCO shall not be allowed in conjunction with e. or f. above." This requirement is being incorporated into the proposed TS 15.3.7.B.1.d by adding the statement, "The required redundant decay heat removal for the shutdown unit and the required redundant shared engineered safety features for the other unit are operable." This requirement is being incorporated into the proposed TS 15.3.7.B.1.e by adding the statement, "The required redundant shared engineered safety features for the other unit are operable." These statements provide the appropriate guidance for all the required redundant equipment, including the emergency diesel generators.

The changes described above in the safety evaluation section 2.2.3 are purely administrative in nature and clarify the TS. Therefore, the changes are acceptable.

2.2.4 TS 15.3.7.B.1.k

The statement, "If any safeguards bus is deenergized, the applicable LCOs will be entered for the affected equipment" is added to provide appropriate guidance for the condition of a deenergized safeguards bus. This change corrects a contradiction in the Technical Specifications.

The current Technical Specifications do not provide guidance for the loss of both the normal and standby emergency power supplies. This condition would invoke the General Consideration TS 15.3.0.A which states, "In the event an LCO cannot be satisfied because of equipment failures or limitations beyond those specified in the permissible conditions of the LCO, the affected unit, which is critical, shall be placed in hot shutdown conditions within three hours of discovery of the situation."

It is more appropriate to enter the applicable Limiting Conditions for Operation for the equipment that is rendered inoperable by the loss of power to the safeguards bus or buses. The proposed TS 15.3.7.B.1.k will provide this guidance. This change eliminated a contradiction in the TS and is consistent with current staff position. Therefore, the change is acceptable.

2.3 TS 15.4.6 Emergency Power System Periodic Tests

2.3.1 TS 15.4.6.A.4

The frequency for inspection of the emergency diesel generators is changed. This specification currently states that the inspection be performed "at least annually, following the manufacturer's recommendations for this class of standby service." This is being changed to remove the "at least annually" clause.

Operating experience and manufacturer's recommendations currently indicate that annual maintenance inspections are not necessary. This change allows the manufacturer's recommendations, as interpreted by the EMD owners' group, to be followed for all the EDGs at PBNP.

The change in the testing interval is consistent with staff position. Therefore, the change is acceptable.

2.3.2 TS 15.4.6.A.6

This specification is changed to include the appropriate designations for the fuel oil that is required to be sampled.

The sampling requirement is basically remaining the same, except that the fuel oil tanks that are being installed as part of the new emergency diesel generator project are not called "emergency fuel oil tanks." These tanks are called "fuel oil storage tanks." Therefore, the terminology for identification of the tanks that must be sampled is being changed to "fuel oil storage tanks which supply the emergency diesel generators."

The change is purely administrative in nature. Therefore, the staff finds the change acceptable.

2.4 Table 15.3.14-1 Safe Shutdown Area Fire Protection

Table 15.3.14-1 is modified by the addition of the new diesel generator rooms, the associated vital switchgear rooms, and the fuel oil day tank rooms. Automatic fire detection has been provided for all areas of the diesel generator building. The rooms all have manual suppression through the fire hose station located in the mechanical equipment room. In addition, the diesel generator rooms and the fuel oil day tank rooms have water sprinkler systems for automatic suppression. The fire protection systems in this table are consistent with current staff position, and therefore, the changes (additions) are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Wisconsin State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments change 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 change a surveillance requirement. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluent 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 (59 FR 37092). 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.

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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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