

July 28, 1993

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

Dear Mr. Link:

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CGrimes
ACRS(10)
OPA
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SUBJECT: AMENDMENT NOS. 140 AND 144 TO FACILITY OPERATING LICENSE NOS. DPR-24
AND DPR-27 (TAC NOS. M82670, M82671, M82752, AND M82753)

The Commission has issued the enclosed Amendment Nos. 140 and 144 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 applications dated January 17, January 29 and April 16, 1992, and your request for enforcement discretion on April 9, 1993. The NRC granted enforcement discretion on April 9, 1993, which was documented in a letter dated April 15, 1993.

These amendments modify the Point Beach Technical Specifications to increase the surveillance test intervals for reactor protection and safeguards circuits. Also, the amendments remove requirements to check Analog Rod Position, Rod Position Bank Counters, and Steam Generator Flow Mismatch Channels during a cold shut down condition of the plant, and also clarify the test requirements for the Overpower Delta T function to ensure consistency with the test requirements for the Overtemperature Delta T function.

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
For

Anthony T. Gody, Jr., Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 140 to DPR-24
2. Amendment No. 144 to DPR-27
3. Safety Evaluation

cc w/enclosures:
See next page

LA:PDIII-3:DRPW
MRushbrook
6/29/93

AGH for
PM:PDIII-3:DRPW
ATGody, Jr./bj
7/7/93

AGH for
D:PDIII-3:DRPW
JHannon
7/7/93

AGB
OGC-OWF
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Mr. Robert E. Link
Wisconsin Electric Power Company

Point Beach Nuclear Plant
Unit Nos. 1 and 2

cc:

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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. 140
License No. DPR-24

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The applications for amendment by Wisconsin Electric Power Company (the licensee) dated January 17, January 29, 1992, and April 16, 1992 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 applications, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 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. 140, 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 20 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Anthony T. Gody, Jr., Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: July 28, 1993



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. 144
License No. DPR-27

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The applications for amendment by Wisconsin Electric Power Company (the licensee) dated January 17, January 29, 1992, and April 16, 1992 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 applications, 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. 144, 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 20 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Anthony T. Gody, Jr., Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: July 28, 1993

ATTACHMENT TO LICENSE AMENDMENT NOS.140 AND 144
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

Table 15.4.1-1
(Pages 1 through 4)

INSERT

Table 15.4.1-1
(Pages 1 through 5)

TABLE 15.4.1-1 (1 of 5)
MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

No.	Channel Description	Check	Calibrate	Test	Remarks
1.	Nuclear Power Range	S(1)** M*(3)**(4)	D(1)** Q*(3)**(4)	Q(2)**	(1) Heat Balance (2) Signal to ΔT ; bistable action (rod stops, trips) (3) Upper and lower chambers for axial off-set (4) Compare incore to excore axial flux difference. Recalibrate if the absolute difference is greater than or equal to 3 percent.
2.	Nuclear Intermediate Range	S(1)**	N.A.	P(2)	(1) Once/shift when in service (2) Log level; bistable action (rod stop, trips)
3.	Nuclear Source Range	S(1)	N.A.	P(2)	(1) Once/shift when in service (2) Bistable action (alarm, trips)
4.	Reactor Coolant Temperature	S	R	Q(1)**(2)**	(1) Overtemperature - ΔT (2) Overpower - ΔT
5.	Reactor Coolant Flow	S**	R	Q**	
6.	Pressurizer Water Level	S**	R	Q**	
7.	Pressurizer Pressure	S**	R	Q**	
8.	4 KV Voltage	N.A.	R	M**	Reactor protection circuits only
9.	Analog Rod Position	S(1)*****	R	N.A.	(1) With step counters

* By means of the moveable incore detector system.
 ** Not required during periods of refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance period. Tests of the low power trip bistable setpoint which cannot be done during power operations shall be conducted prior to startup if not done in the previous surveillance interval.
 ***** Not required during periods of cold and refueling shutdowns, but must be performed prior to starting up if it has not been performed during the previous surveillance period.

TABLE 15.4.1-1 (2 of 5)

No.	Channel Description	Check	Calibrate	Test	Remarks
10.	Rod Position Bank Counters	S(1)*****	N.A.	N.A.	(1) With analog rod position
11.	Steam Generator Level	S**	R	Q(1)**	
12.	Steam Generator Low Level Coincident with Steam Flow/ Feed Flow Mismatch	S*****	R	Q**	
13.	Charging Flow	N.A.	R	N.A.	
14.	Residual Heat Removal Pump Flow	N.A.	R	N.A.	
15.	Boric Acid Tank Level	D	R	N.A.	
16.	Refueling Water Storage Tank Level	N.A.	R	N.A.	
17.	Volume Control Tank Level	N.A.	R	N.A.	
18.	Reactor Containment Pressure	S	R	Q(1)**	(1) Isolation valve signal
19.	Radiation Monitoring System	D	R	M	(1) Radioactive Effluent Monitoring Instrumentation Surveillance Requirements are specified in 15.7.4.
20.	Boric Acid Control	N.A.	R	N.A.	
21.	Containment Water Level	M	R	N.A.	
22.	Turbine Overspeed Trip*	N.A.	R	M(1)**	(1) Block trip
23.	Accumulator Level and Pressure	S	R	N.A.	

* Overspeed Trip Mechanism, and Independent Turbine Speed Detection and Valve Trip System

** Not required during periods of refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance period.

***** Not required during periods of cold and refueling shutdowns, but must be performed prior to starting up if it has not been performed during the previous surveillance period.

TABLE 15.4.1-1 (3 of 5)

No.	Channel Description	Check	Calibrate	Test	Remarks
24.	Containment Pressure	S	R	Q**	Narrow range containment pressure (-3.0, +3 psig excluded)
25.	Steam Generator Pressure	S***	R	Q**	
26.	Emergency Plan Radiation Survey Instruments	Q	R	Q	
27.	Environmental Monitors	M	N.A.	N.A.	
28.	Overpressure Mitigating	S	R	****	
29.	PORV Position Indicator	S	R	R	
30.	PORV Block Valve Position Indicator	Q	R	N.A.	
31.	Safety Valve Position Indicator	M	R	N.A.	
32.	PORV Operability	N.A.	R	Q	Performance of a channel functional test but excluding valve operation
33.	Subcooling Margin Monitor	M	R	N.A.	
34.	Undervoltage on 4 KV Bus	N.A.	R	M**	For Auxiliary Feedwater Pump Initiation
35.	Auxiliary Feedwater Flow Rate	See Remarks	R	N.A.	Flow Rate indication will be checked at each unit startup and shutdown
36.	Degraded 4.16 KV Voltage	S	R	M**	
37.	a. Loss of Voltage(4.16 KV)	S	R	M**	
	b. Loss of Voltage(480 V)	S	R	M**	
38.	4160 V Frequency	N.A.	R	N.A.	

Unit 1 - Amendment No. 38, 47, 55, 59, 113, 140
Unit 2 - Amendment No. 50, 55, 60, 64, 116, 144

TABLE 15.4.1-1 (Page 4 of 5)

<u>No.</u>	<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Test</u>	<u>Remarks</u>
39.	Containment High Range Radiation	S**	R	M**	Calibration to be verification of response to a source.
40.	Containment Hydrogen Monitor	D	R/Q	N.A.	Gas Calibration - Q, Electronic Calibration - R Sample gas for calibration at 2% and 6% hydrogen.
41.	Reactor Vessel Fluid Level System	M	R	N.A.	
42.	In-Core Thermocouple	M	R	N.A.	Calibration to be verification of response to a source.

**Not required during periods of refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance period.

***During cold or refueling shutdown, a check of one pressure channel per steam generator is required when the steam generator could be pressurized.

****When used for the overpressure mitigating system each PORV shall be demonstrated operable by:

- a. Performance of a channel functional test on the PORV actuation channel, but excluding valve operation, within 31 days prior to entering a condition in which the PORV is required operable and at least once per 31 days thereafter when the PORV is required operable.
- b. Testing valve operation in accordance with the inservice test requirements of the ASME Boiler and Pressure Vessel Code, Section XI.

Unit 1 - Amendment No. / 38, 47, 55, 76, 92, 113, 140
Unit 2 - Amendment No. 50, 55, 60, 80, 96, 116, 144

TABLE 15.4.1-1 (Page 5 of 5)

<u>No.</u>	<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Test</u>	<u>Remarks</u>
43.	Reactor Protection System and Emergency Safety Feature Actuation System Logic	N.A.	N.A.	M**	Each train tested at least every 62 days on a staggered basis. Reactor Trip on loss of reactor coolant flow in both loops shall be performed each refueling interval.
44.	Reactor Trip System Interlocks				
a.	Intermediate Range Neutron Flux, P-6	N.A.	R	R	Neutron detectors excluded from calibration
b.	Power Range Neutron Flux, P-8	N.A.	R	R	Neutron detectors excluded from calibration
c.	Power Range Neutron Flux, P-9	N.A.	R	R	Neutron detectors excluded from calibration
d.	Power Range Neutron Flux, P-10	N.A.	R	R	Neutron detectors excluded from calibration
e.	1st Stage Turbine Impulse Pressure	S**	R	R	

S - Each Shift
 D - Daily
 W - Weekly
 B/W - Biweekly
 Q - Quarterly
 M - Monthly
 P - Prior to each startup if not done previous week.
 R - Each Refueling interval (But not to exceed 18 months).
 N.A. - Not applicable.

** Not required during periods of refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance interval.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 140 AND 144 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 INTRODUCTION

By applications for amendment dated January 29, 1992, and April 16, 1992, Wisconsin Electric Power Company, the licensee for the Point Beach Nuclear Plant, Units 1 and 2, requested a revision to operating licenses DPR-24 and DPR-27 by incorporating changes to Technical Specifications (TS) allowing longer surveillance test intervals (STIs) for the reactor trip system (RTS) and engineered safety features actuation system (ESFAS) instrumentation. This proposed modification to the TS should minimize the potential number of inadvertent ESFAS actuation and reactor trips during surveillance testing, increase operational effectiveness of plant personnel, and allow resources to be used for other tasks such as preventive maintenance.

Further, in a letter dated January 17, 1992, the licensee requested NRC's approval to implement a Technical Specification (TS) modification revising the logging and test requirements of the Analog Rod Position, Rod Position Bank Counters, and Steam Generator (SG) Flow Mismatch channels when the reactor is in a cold shut down condition. In addition, the revision also clarifies test requirements for the Overpower Delta T function to ensure consistency with the test requirements for the Overtemperature Delta T function.

2.0 BACKGROUND

Operating utilities have become increasingly aware of the effects of current STIs and maintenance requirements on plant operation. Inadvertent reactor trips have occurred that could be attributed to human errors during performance of these activities. Human errors were found to be directly proportional to the frequency of surveillance tests (STs) and thus were, in part, responsible for inadvertent trips and challenges to safety systems.

The Westinghouse Owners Group (WOG) initiated a program to evaluate the contribution of human errors to inadvertent transients and changes in the probabilistic aspects of postulated core damage during surveillances and RPS and ESFAS instrument allowed outage times (AOTs). As a result of this program, the WOG proposed TS changes to increase these STIs and AOTs. The proposed changes were intended to minimize the possibility of inadvertent trips and challenges to the safety systems while maintaining the benefits of routine tests and maintenance activities to ensure the reliability of the RTS and ESFAS instruments.

TS Table 15.4.1-1, "Minimum Frequencies for Checks, Calibrations, and Test of Instrument Channels" describes requirements for checking, calibrating and testing of 44 different instrument channels. Instrumentation is checked, tested, and calibrated at sufficiently frequent intervals to ensure safe operation. Calibrations are performed to ensure the presentation and acquisition of plant information is accurate and testing is performed to ensure that the instrumentation continues to perform adequately.

3.0 SURVEILLANCE TEST INTERVALS AND ALLOWED OUTAGE TIMES

In 1983, the WOG published the results of a study and proposed Technical Specification (TS) changes in WCAP-10271, "EVALUATION OF SURVEILLANCE FREQUENCIES AND OUT OF SERVICE TIMES FOR THE REACTOR PROTECTION INSTRUMENTATION SYSTEM." This document was later revised with the current version of WCAP-10271, Supplement 2, Revision 1, being dated May 12, 1987. The staff reviewed all versions of WCAP-10271 and the WOG's responses to staff's questions on the documents. The staff received technical assistance from the Brookhaven National Laboratory (BNL) to evaluate the approach used and the analyses performed in the WOG reports. BNL evaluated the adequacy of the WOG's methodology to establish the technical bases for relief from unavailability data and reliability calculations, in support of the proposed STI/AOT extensions. After completion of the staff review, three Safety Evaluation Reports (SERs) were issued on WCAP-10271: RTS SER on February 21, 1985, ESFAS SER on February 22, 1989, and a supplemental SER (SSER) on April 30, 1990. These SERs approved various TS changes relating to extending STIs, test/maintenance AOTs, and bypass time for instrument channels in the RTS, ESFAS, and logic cabinets for these systems. In the SERs, the staff approved extensions to STIs/AOTs as well as to the time during which the instrument channels could be bypassed. However, the staff stipulated certain conditions that licensees must meet in order to be allowed to include these pre-approved changes in plant-specific TS. The pre-approved changes and associated conditions are addressed below.

3.1 PRE-APPROVED CHANGES

As mentioned above, the staff stipulated certain conditions to be met before the generically approved TS changes to the RTS and ESFAS could be made to plant-specific TS. The pre-approved TS changes are described below and the associated conditions are described in Section 3.2 of this report. Pre-approved changes associated with AOTs are not discussed because the licensee did not make any changes to the RPS or ESFAS AOTs.

3.1.1. In the RTS SER issued on February 21, 1985, the staff approved the following TS changes relating to RTS instruments:

- (1) STI for RTS analog channel operational testing may be increased from once a month to once per quarter.
- (2) Testing of RTS analog channels in the bypass condition rather than the tripped condition is approved.

3.1.2. In the ESFAS SER issued on February 22, 1989, the staff approved the following TS changes relating to ESFAS instruments:

- (1) The STIs for the analog channels may be increased from 1 month to 3 months.
- (2) Staggered testing is not required for analog channels in the ESFAS and this requirement may be removed for analog channels in RTS.

3.1.3. In the SSER issued on April 30, 1990, the staff approved the proposed STI changes for the logic cabinets and reactor trip breakers for the RTS system based on its evaluation of Appendix D to the WCAP-10271, Supplement 2, Revision 1. The RTS and ESFAS share some common instrumentation; therefore, it was necessary to consider STI changes for RTS logic cabinets. The staff's conclusions are given below:

- (1) The STI extensions (covered by the ESFAS SER) for ESFAS functions associated with safety injection, steam line isolation, main feedwater isolation, and auxiliary feedwater pump start signals are acceptable.
- (2) The STI extensions proposed in Appendix D are not acceptable for reactor trip breakers because the extensions would reduce availability of these breakers.

3.2 ASSOCIATED CONDITIONS FOR APPROVAL

3.2.1 Specific conditions on the staff's approval for the RTS changes, as stated in the SER are:

- (1) Performance of testing shall be done on a staggered basis. (This condition was later removed by the ESFAS SER).
- (2) Procedures should be implemented to evaluate test-failures for common cause and additional testing should be performed if necessary.
- (3) Approval of channel testing (Items 3.1.1 (3) and (4) above) in a bypassed condition assumes that the plant design allows such testing without lifting any leads or installing temporary jumpers.
- (4) The approved revisions to the TS as described above in Items 3.1.1 (1) through (4), also apply to the reactor coolant pump undervoltage and underfrequency functional units.

- (5) For RTS channels which provide dual inputs to other safety related systems such as ESFAS, the approval of Items 3.1.1 (1) through (4) above applies only to RTS functions.
- (6) An increased STI would change the margin for the analog channel setpoint; therefore, an approval of increased STI is contingent on confirmation by the licensee that their setpoint methodology includes sufficient margin to offset the drift anticipated as a result of less frequent surveillance.

3.2.2 Specific conditions on the staff's approval for the ESFAS changes, as stated in the SER are:

- (1) The licensee must confirm the applicability of the generic analyses to the plant.
- (2) The licensee must confirm that any increase in instrument drift due to the extended STIs is properly accounted for in the setpoint calculation methodology.

3.3 EVALUATION OF PROPOSED TS CHANGES

3.3.1 VERIFICATION OF CONSISTENCY WITH STAFF SERS

3.3.1.1 Table 15.4.1-1, "Minimum Frequencies for Checks, Calibrations and Tests of Instrument Channels."

1. Proposed change: For RTS and ESFAS Instrument Channels as described in Items: (1) Nuclear Power Range, (4) Reactor Coolant Temperature, (5) Reactor Coolant Flow, (6) Pressurizer Water Level, (7) Pressurizer Pressure, (11) Steam Generator Level, (12) Steam Generator Low Level Coincident with Steam Flow/Feed Flow Mismatch, (18) Reactor Containment Pressure, (24) Containment Pressure, (25) Steam Generator Pressure, and (32) PORV Operability, CHANNEL FUNCTIONAL TEST frequencies are changed from monthly to quarterly.

Evaluation: The staff verified that the proposed changes were consistent with the staff's SERs for RTS and ESFAS dated February 21, 1985 and February 22, 1989, respectively. Therefore, the staff concludes that the proposed changes are acceptable.

2. Proposed change: Add a new Item 43 (Reactor Protection System and Emergency Safety Feature Actuation System Logic). The STI for this new item would be monthly; therefore, add a note, "Each train tested at least every 62 days on a staggered basis," in the "Remarks" column for Item 43.

Evaluation: Testing of "Reactor Protection System and Emergency Safety Feature Actuation System Logic," was part of monthly testing of various RTS and ESFAS instrument analog channels. Presently, the TS does not differentiate between testing of analog instrument channels and the actuation logic. The existing STI for analog channels is monthly. Although WCAP-10271 includes a relaxed STI for these analog channels from monthly to quarterly, it did not support similar relaxation for the logic portion of the analog loops. Therefore, testing of the actuation logic portion of the analog channels will still be required on a monthly basis. One channel would be tested each month with each channel required to be tested at least once every 62 days. The proposed change is consistent with NRC policy and the Westinghouse Standard Technical Specifications, and is therefore acceptable to the staff.

3. Proposed change: The proposed change removes notes "(1) Analog and single loop loss of flow logic testing, and (2) Logic channel testing for reactor trip on loss of reactor coolant flow in both loops shall be performed each refueling interval," in the "Remarks" column of Item 5, "Reactor Coolant Flow," and adds a note, "Reactor Trip on loss of reactor coolant flow in both loops shall be performed each refueling interval" to the "Remarks" column of Item 43.

Evaluation: In accordance with the existing TS, logic testing of this instrument channel is performed each refueling interval. However, the logic test for reactor trip on loss of coolant flow cannot be performed while the reactor is at power, therefore, the licensee has decided to continue testing the logic during each refueling interval. A note to this effect would be added to Item 43. This is an administrative change and is acceptable to the staff.

4. Proposed change: The proposed change removes note "(1) Includes test of logic for reactor trip on low-low level and automatic actuation logic for auxiliary feedwater pumps" from the "Remarks" column of Item 11, "Steam Generator Level."

Evaluation: Since logic test requirements for Item 11, "Steam Generator Level" have been included in a new Item No. 43, removing a note for logic test requirements of Steam Generator Level from the "Remarks" column is an administrative change and is acceptable to the staff.

5. Proposed change: The proposed change adds a new Item No. 44, "Reactor Trip System Interlocks and Permissive," to TS Table 15.4.1-1. The new item would include test and calibration requirements for instrument channels Item 44.a, "Intermediate Range Neutron Flux P-6," Item 44.b, "Power Range Neutron Flux P-8," Item 44.c, "Power Range Neutron Flux P-9," Item 44.d, "Power Range Neutron Flux P-10," and Item 44.e, "First Stage Turbine Impulse Pressure." Test and Calibration requirements for the above items would be each refueling outage with no requirements for a channel "Check" for Items 44.a, 44.b, 44.c and 44.d.

Further, item 26 is removed because Item 44.e replaces the existing Item 26, which had a per shift checking requirement, a calibration requirement at each refueling outage, and a monthly test requirement. The revised test requirements would include a channel check once each shift, and calibration and test each refueling outage.

The "permissive" test requirements of existing Item 1, "Nuclear Power Range" and Item 2, "Nuclear Intermediate Range" are replaced by New Item 44.b and 44.a, respectively. Therefore, the word "permissive" would be deleted from Note "2" in the "Remarks" column of Items 1 and 2 of TS Table 15.4.1-1. The note (designated "**") would be modified to read, "Not required during periods of refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance period. Tests of the low power bistable setpoint which cannot be done during power operation shall be conducted prior to starting up if not performed in the previous surveillance interval."

Evaluation: Inclusion of permissive and interlock testing for RTS and ESFAS is consistent with Westinghouse Standard Technical Specifications and WCAP-10271 and its supplements. Changes to the surveillance test frequencies for the reactor system interlocks do not represent a significant reduction in the testing. The currently specified interval, as part of the instrument surveillance, allows the surveillance requirement to be satisfied by verifying that the permissive logic is in its required state using annunciator status lights. Thus, the surveillance as currently performed addresses only the status of the permissive logic and does not address verification of the channel setpoint or operability. At present, setpoint verification and channel operability are verified during refueling shutdowns.

The revised surveillance frequency would be at each refueling outage. The intermediate range neutron flux permissive (P-6) and power range neutron flux permissive (P-10) can only be calibrated and tested when shutdown. The power range neutron flux permissive P-8 and P-9 can be calibrated and tested only when the plant power level is less than 50% which does not normally occur during a normal operating cycle. Present specifications allow for deferral of tests during shutdown prior to startup if they cannot be done during power operation and they do not require a reduction in power to accomplish. Therefore, changing the surveillance requirement for calibration and test of the logic for the reactor system permissive interlocks from monthly to each refueling is acceptable.

The revised test requirements for Item 44.e - First Stage Turbine Impulse Pressure - will include a channel check once each shift, which is consistent with the present requirements and is acceptable to the staff.

6. Proposed changes: Item 32, "PORV Operability," STI for "Performance of a channel functional test but excluding valve operation" is changed from monthly to quarterly.

Evaluation: Existing TS require a monthly functional test of PORVs. The test does not involve physically repositioning the valve. To perform this test, other associated instrument channels including the pressurizer pressure channel are required to be placed in the test mode. Therefore, at present, the PORV functional test is done during the monthly channel test of these associated channels, including a test of the pressurizer pressure channel. The proposed TS revision changes the STI for these associated channels from monthly to quarterly (Ref: Item 4.1.1.1 of this report). Therefore, to maintain the test interval to coincide with instrument channel testing, the STI for the PORV would be changed from monthly to quarterly. The licensee stated that because the test does not include physically repositioning the valve, it is not expected that quarterly testing would adversely affect PORV operability. The staff concurs with the licensee, and finds this change acceptable.

7. Proposed changes: Test requirements are removed from Item 9, "Analog Rod Position."

Evaluation: According to the Point Beach Nuclear Plant, FSAR Section 7.3, circuits for Analog Rod Position do not serve as a reactor protection function but are used for a control function. The licensee stated that the comparison of the analog rod position and rod position bank counters is performed on a per shift basis which is adequate for detection and correction of any potential problems. Because, these circuits are not for protection, the licensee stated that it is not necessary to include test requirements for these in the TS. The staff concurs with this statement and finds the proposed change acceptable.

3.3.2 VERIFICATION OF CONDITIONS

In the submittal, the licensee confirmed that it has met the SER conditions as described below.

- (1) Condition 3.2.2.(1): The ESFAS SER states that the licensee must confirm the applicability of the generic analyses to the plant. The licensee stated that the generic analysis used in WCAP-10271 and its Supplements is applicable to the Point Beach Nuclear Plant Units 1 and 2.

(2) Conditions 3.2.1.(6) and 3.2.2.(2): The RTS SER and the ESFAS SER state that the licensee must confirm that any increase in instrument drift due to the extended STIs is properly accounted for in the setpoint calculation methodology. The licensee stated that it has reviewed reactor protection and safeguards bistable calibration data over the period from June 1985 to June 1990 (60 months). The review concluded that for most cases, the increased total setpoint drift over a quarterly interval would not result in an increased number of TS violations. In those instances where a TS setpoint could be violated due to an increased instrument drift, plant setpoint and/or instrument calibration changes would be implemented as necessary prior to increasing the test interval.

(3) Condition 3.2.1.(3): The licensee stated that although WCAP-10271 and staff's SER allow testing of Instrument Channels in bypass, at this time they are not requesting to test these channels in bypass because the existing plant design does not allow such testing without lifting of wires or installation of temporary jumpers. Therefore, Condition 3.2.1 (3) is not applicable.

(4) Condition 3.2.1.(2): The staff's SER states that programs and procedures be in place to evaluate problems discovered during testing for potential common cause failures and testing of other instrument channels that may be susceptible to common cause failure. The licensee stated that it has procedures in place for the above purpose.

(5) Condition 3.2.1.(1): Performance of testing on a staggered basis was stipulated in the RTS SER but, was subsequently removed in the ESFAS SER. In the proposed revision to the TS, the licensee has maintained testing on a staggered basis for new Item 43, "Reactor Protection and Engineered Safety Features Actuation System Logic."

The staff reviewed the licensee's evaluation for relaxation in STI's for the RTS and ESFAS and agrees with its conclusions that:

(a) The changes in the STI result in a slight increase in the potential unavailability of the ESFAS and RTS due to the possibility of an instrument channel being out of calibration for a longer period of time without being detected. The resultant negligible increase in the core damage frequency (CDF), is completely offset by the reduction in potential inadvertent plant trips due to human errors. This reduction in potential human errors is primarily attributable to the less frequent surveillance requirements. The licensee affirmed that implementation of the proposed changes would result in a significant reduction in the probability of inadvertent plant trips. Therefore, the proposed changes do not result in an increase in the severity or consequences of an accident previously evaluated.

(b) The proposed changes will not result in physical alteration to any plant system or result in changes to plant protection provided by the Reactor Protection System (RPS). RPS functionality is not altered. Therefore, the proposed amendments do not create the possibility of a new or different kind of accident from any accident previously evaluated.

(c) The proposed changes do not alter the manner in which the safety limits, limiting safety system setpoints, and limiting conditions for operation are determined. Therefore, the proposed TS revisions do not involve a significant reduction in a margin of safety.

4.0 ADDITIONAL PROPOSED REVISIONS

Footnote marked "***" to the existing TS Table 15.4.1-1 describing check and test frequencies for channels in Items 9, 10, and 12, namely Analog Rod Position, Rod Position Bank Counters and SG Flow Mismatch, states; "Not required during periods of refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance period..." In the proposed revision, this footnote would be replaced by a footnote marked "***" which states; "Not required during periods of cold and refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance period..."

Thus, in accordance with the existing TS Table, these channels do not have any per shift check requirements during refueling shutdown, except that they must be checked prior to startup if they have not been checked during the previous surveillance period.

Proposed revision to the footnote of TS Table 15.4.1-1 stipulates that in addition to the refueling shutdown condition, these instruments need not be checked during the period of a cold shutdown condition.

Item 4 of TS Table 15.4.1-1 lists the Overtemperature Delta T and the Overpower Delta T functions of the reactor coolant temperature. However, it gives the monthly test requirements only for the Overtemperature Delta T function and not for the Overpower Delta T function, although test requirements for both are identical.

Proposed revision to the TS Table 15.4.1-1 Item 4 clarifies that the test requirements for the Overtemperature Delta T function are also applicable to the Overpower Delta T function.

4.1 EVALUATION OF ADDITIONAL PROPOSED REVISIONS

The proposed revision to the TS Table 15.4.1-1 incorporates two additional changes.

- (1) Proposed change: Removal of logging requirements for three parameters while the plant is in a cold shutdown condition. These three parameters are described in Items 9, 10, and 12 of the TS Table, namely, Analog Rod position, Rod Position Bank Counters, and SG Flow Mismatch (Title administratively changed to "SG Low Level Coincident with Steam Flow/Feed Flow Mismatch").

Evaluation: Analog Rod Position and Rod Position Bank counters indications are intended to alert operators to reactivity changes that could be taking place. During a cold shutdown condition, the operator, by procedure, is required to verify that all control rods are fully inserted and that the reactor trip and bypass breakers are open. Opening of breakers ensures that no rod movement can occur because all the control rod mechanisms are de-energized. Verifying that all rods are at the bottom is done on a

regular shift basis by monitoring the rod bottom light indication. In addition, Source Range Monitors (SRMs) and Intermediate Range Monitors (IRMs) are constantly monitored for reactivity changes in the core, which ensures that the plant is constantly watched for any reactivity changes. Since the core reactivity is monitored by SRMs and IRMs, and control rods are verified to be at the bottom of the core, it is not necessary to monitor Analog Rod Position and Rod Position Bank counters indications during a cold shutdown condition, and removing their logging requirements during a cold shutdown condition is acceptable to the staff.

SG Flow Mismatch indicates the difference between the rate of feedwater flow in and the rate of steam flow out. This function provides an indication of the presence of the SG as a heat sink for the primary system. During a cold shutdown condition the Residual Heat Removal (RHR) system is the primary means for removing the decay heat of the core, and while being operated, all of its important parameters are monitored. For the SG to be considered operable for the decay heat removal function, TS requires two sources of water to the SG, water level indication, and a vent path to the atmosphere. During a cold shutdown condition, SG water level and pressure are logged every shift. This monitoring provides an indication of operability of the SG, therefore, monitoring SG Flow Mismatch during a cold shutdown to verify operability of the SG is not necessary. In addition, during a cold shutdown the water temperature is less than 200° F which means there can be no steam formation and, therefore, the SG Flow Mismatch would not provide any useful information. In summary, during a cold shutdown, logging of the SG flow mismatch does not provide any useful information, and monitoring SG Flow Mismatch to verify operability of the SG is not necessary. Removing requirements to monitor the SG Flow Mismatch during a cold shutdown condition from TS Table 15.4.1-1 is acceptable to the staff.

The administrative change of the title to "SG Low Level Coincident with Steam Flow/Feed Flow Mismatch" is acceptable.

- (2) Proposed change: Removes inconsistencies from the test-requirements for the Overpower Delta T and Overtemperature Delta T functions.

Evaluation: Both functions provide trip inputs to the Reactor Protection System (RPS). The Over Temperature Delta T reactor trip provides core protection against a departure from nucleate boiling for all combinations of pressure, power, coolant temperature, and axial power distribution. The Overpower Delta T reactor trip prevents power density anywhere in the core from exceeding its set limit. Although both functions have identical test requirements, the notation on Item 4 of TS Table 15.4.1-1 does not clearly indicate this fact. The proposed change to the notation of Item 4 for the test requirements for the Overpower Delta T function makes it clear that test requirements for both functions are identical. This change, which is administrative and editorial, removes inconsistency and is acceptable to the staff.

5.0 STATE CONSULTATION

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

6.0 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 an inspection or 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 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 Section 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.

7.0 CONCLUSION

Based on the above evaluation, the staff finds the proposed revision to the TS of Point Beach Nuclear Plant, Units 1 and 2 consistent with staff guidance for improved TS, and therefore, acceptable. In addition, the staff believes that implementation of the proposed TS changes would result in the following benefits:

1. Reduced testing will result in fewer inadvertent reactor trips, less frequent actuation of ESFAS components, and less frequent distraction of operations personnel.
2. Improvements in the effectiveness of the operating staff in monitoring and controlling plant operation will be realized. This is due to less frequent distraction of the operators and shift supervisor when attending to instrumentation testing.

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.

Principal Contributor: S.V. Athavale

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