

July 17, 1998

Mr. Michael B. Sellman
Chief Nuclear Officer
Wisconsin Electric Power Company
231 West Michigan Street
Milwaukee, WI 53201

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 - ISSUANCE OF
AMENDMENTS RE: RADIATION MONITORING SYSTEM
(TAC NOS. M92346 AND M92347)

Dear Mr. Sellman:

The Commission has issued the enclosed Amendment No. 185 to Facility Operating License No. DPR-24 and Amendment No. 189 To Facility Operating License No. DPR-27 for the Point Beach Nuclear Plant, Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TS) in response to your application (TSCR-172) dated May 2, 1995, October 12, 1995, March 26, 1996, December 15, 1997, and May 27, 1998.

These amendments revise TS Table 15.4.1-1, "Minimum Frequencies For Checks, Calibrations, and Tests Of Instrument Channels," to change the test frequency of the containment high range radiation monitor, revise note 7, and revise item 36 to clarify which monitors in the radiation monitoring system support current TS or meet the requirements of 10 CFR 50.36.

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

Sincerely,

ORIGINAL SIGNED BY

Linda L. Gundrum, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-266 and 50-301

- Enclosures: 1. Amendment No. 185 to DPR-24
- 2. Amendment No. 189 to DPR-27
- 3. Safety Evaluation

cc w/encls: See next page

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DATE	6/25/98		6/30/98		7/10/98		7/15/98	7/17/98

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Mr. Michael B. Sellman
Wisconsin Electric Power Company

Point Beach Nuclear Plant
Units 1 and 2

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DATED: July 17, 1998

AMENDMENT NO. 185 TO FACILITY OPERATING LICENSE NO. DPR-24 - POINT BEACH UNIT 1
AMENDMENT NO. 189 TO FACILITY OPERATING LICENSE NO. DPR-27 - POINT BEACH UNIT 2

Docket File (50-266, 50-301)
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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 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 185
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 2, 1995, October 12, 1995, March 26, 1996, December 15, 1997, and May 27, 1998, 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.

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2. Accordingly, Facility Operating License No. DPR-24 is hereby amended to approve the relocation of certain Technical Specification requirements to licensee-controlled documents as described in the licensee's application dated May 2, 1995, as supplemented October 12, 1995, March 26, 1996, December 15, 1997, and May 27, 1998, and evaluated in the staff's safety evaluation attached to this amendment. This license is also hereby 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. 185, are hereby incorporated in the license. The licensee shall operate the facility in accordance with 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. Implementation shall also include relocation of certain Technical Specification requirements to licensee-controlled documents, as described in the licensee's application dated May 2, 1995, as supplemented October 12, 1995, March 26, 1996, December 15, 1997, and May 27, 1998, and evaluated in the staff's safety evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION



Linda L. Gundrum, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of issuance: July 17, 1998



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

WISCONSIN ELECTRIC POWER COMPANY

DOCKET NO. 50-301

POINT BEACH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 189
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 2, 1995, October 12, 1995, March 26, 1996, December 15, 1997, and May 27, 1998, 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.

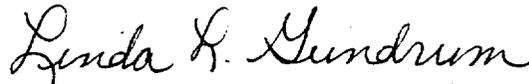
2. Accordingly, Facility Operating License No. DPR-27 is hereby amended to approve the relocation of certain Technical Specification requirements to licensee-controlled documents as described in the licensee's application dated May 2, 1995, as supplemented October 12, 1995, March 26, 1996, December 15, 1997, and May 27, 1998, and evaluated in the staff's safety evaluation attached to this amendment. This license is also hereby 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. 189, are hereby incorporated in the license. The licensee shall operate the facility in accordance with 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. Implementation shall also include relocation of certain Technical Specification requirements to licensee-controlled documents, as described in the licensee's application dated May 2, 1995, as supplemented October 12, 1995, March 26, 1996, December 15, 1997, and May 27, 1998, and evaluated in the staff's safety evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION



Linda L. Gundrum, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of issuance: July 17, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 185

TO FACILITY OPERATING LICENSE NO. DPR-24

AND LICENSE AMENDMENT NO. 189

TO FACILITY OPERATING LICENSE NO. 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 vertical lines indicating the area of change.

REMOVE

Table 15.4.1-1 (Pages 3-6)

INSERT

Table 15.4.1-1 (Pages 3-6)

TABLE 15.4.1-1 (continued)

<u>NO.</u>	<u>CHANNEL DESCRIPTION</u>	<u>CHECK</u>	<u>CALIBRATE</u>	<u>TEST</u>	<u>PLANT CONDITIONS WHEN REQUIRED</u>
20.	Auxiliary Feedwater Flowrate	(13)	R	-	ALL
21.	Boric Acid Control System	-	R	-	ALL
22.	Boric Acid Tank Level	D	R	-	ALL
23.	Charging Flow	-	R	-	ALL
24.	Condensate Storage Tank Level	S(1)	R	-	ALL
25.	Containment High Range Radiation	M(1)	R(14)	-	ALL
26.	Containment Hydrogen Monitor	D	-	-	ALL
	-Gas Calibration	-	Q(15)	-	ALL
	-Electronic Calibration	-	R	-	ALL
27.	Containment Pressure	S	R	Q(1,3,9)	ALL
28.	Containment Water Level	M	R	-	ALL
29.	Emergency Plan Radiation Survey Instruments	Q	R	Q	ALL
30.	Environmental Monitors	M	-	-	ALL
31.	In-Core Thermocouples	M	R(14)	-	ALL
32.	Low Temperature Overpressure Protection System	S(12)	R	(10)	ALL
33.	PORV Block Valve Position Indicator	Q	R	-	ALL
34.	PORV Operability	-	R	Q(11)	ALL
35.	PORV Position Indicator	S(21)	R	R	ALL

Unit 1 - Amendment No. 457, 472, 185

Unit 2 - Amendment No. 464, 476, 189

TABLE 15.4.1-1 (continued)

<u>NO.</u>	<u>CHANNEL DESCRIPTION</u>	<u>CHECK</u>	<u>CALIBRATE</u>	<u>TEST</u>	<u>PLANT CONDITIONS WHEN REQUIRED</u>
36.	Radiation Monitoring System				
	-RE-218 WDS Liquid Monitor	(7)	R(14)	Q	ALL
	-RE-223 Waste Distillate Overboard Monitor	(7)	R(14)	Q	ALL
	-RE-231 A Steam Line Release Monitor	M(1)	R(14)	-	ALL
	-RE-232 B Steam Line Release Monitor	M(1)	R(14)	-	ALL
	-RE-101 Control Room Monitor	S	R(14)	Q	ALL
	-RE-235 Control Room Noble Gas Monitor	S	R(14)	Q	ALL
	-RE-215 Air Ejector Monitor	D(1)	R(14)	-	ALL
37.	Reactor Vessel Fluid Level System	M	R	-	ALL
38.	Refueling Water Storage Tank Level	-	R	-	ALL
39.	Residual Heat Removal Pump Flow	-	R	-	ALL
40.	Safety Valve Position Indicator	M	R	-	ALL
41.	Subcooling Margin Monitor	M	R	-	ALL
42.	Deleted				
43.	Volume Control Tank Level	-	R	-	ALL
44.	Reactor Protection System and Emergency Safety Feature Actuation System Logic	-	-	M(1,23)	ALL
45.	Reactor Trip System Interlocks				
	-Intermediate Range Neutron Flux, P-6	-	R(24)	R	ALL
	-Power Range Neutron Flux, P-8	-	R(24)	R	ALL
	-Power Range Neutron Flux, P-9	-	R(24)	R	ALL
	-Power Range Neutron Flux, P-10	-	R(24)	R	ALL
	-1 st Stage Turbine Impulse Pressure	-	R(24)	R	ALL

Unit 1 - Amendment No. 457, 476, 185

Unit 2 - Amendment No. 464, 480, 189

NOTATION USED IN TABLE 15.4.1-1

S- Each Shift

D- Daily

W- Weekly

Q- Quarterly

M- Monthly

P- Prior to reactor criticality if not performed during the previous week.

R- Each refueling interval (but not to exceed 18 months)

PWR- Power and Low Power Operation, as defined in Specifications 15.1.h. and 15.1.m.

HOT S/D- Hot shutdown, as defined in Specification 15.1.g.1.

COLD S/D- Cold Shutdown, as defined in Specification 15.1.g.2.

REF S/D- Refueling Shutdown, as defined in Specification 15.1.g.3.

ALL- All conditions of operation, as defined in Specifications 15.1.g, h, and m.

NOTES USED IN TABLE 15.4.1-1

- (1) Not required during periods of refueling shutdown, but must be performed prior to reactor criticality if it has not been performed during the previous surveillance period.
- (2) Tests of the low power trip bistable setpoints which cannot be done during power operations shall be conducted prior to reactor criticality if not done in the previous surveillance interval.
- (3) Perform test of the isolation valve signal.
- (4) Perform by means of the moveable incore detector system.
- (5) Recalibrate if the absolute difference is ≥ 3 percent.
- (6) Verification of proper breaker alignment and that the 120 Vac instrument buses are energized.
- (7) Source check is required prior to initiation of a release. Source check is an assessment of channel response by exposing the detector to a source of increased radiation. Channel check is required shiftly during a release. If monitor or isolation function is discovered inoperable, discontinue release immediately.
- (8) Verify that the associated rod insertion limit is not being violated at least once per 4 hours whenever the rod insertion limit alarm for a control bank is inoperable.
- (9) Test of Narrow Range Pressure, 3.0 psig, -3.0 psig excluded.

Unit 1 - Amendment No. 140, 157, 184, 185

Unit 2 - Amendment No. 144, 161, 188, 189

NOTES USED IN TABLE 15.4.1-1 (continued)

- (10) When used for the Low Temperature Overpressure Protection 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.
- (11) Performance of a channel functional test is required, excluding valve operation.
- (12) Shiftly check is required when the reactor coolant system is not open to the atmosphere and the reactor coolant system temperature is less than the minimum temperature for the in-service pressure test as specified in TS Figure 15.3.1-1.
- (13) An AFW flow path to each steam generator shall be demonstrated operable, following each cold shutdown of greater than 30 days, prior to entering power operation by verifying AFW flow to each steam generator.
- (14) Calibration is to be a verification of response to a source.
- (15) Sample gas for calibration at 2% and 6%.
- (16) A check of one pressure channel per steam generator is required whenever the steam generator could be pressurized.
- (17) Includes test of logic for reactor trip on low-low level, automatic actuation logic for auxiliary feedwater pumps, and test of logic for feedwater isolation on high steam generator level.
- (18) Rod positions must be logged at least once per hour, after a load change >10% or after >30 inches of control rod motion if the on-line computer is inoperable.
- (19) The daily heat balance is a gain adjustment performed to match Nuclear Instrumentation System indicated power level with reactor thermal output.
- (20) To confirm that hot channel factor limits are being satisfied, the requirements of TS 15.3.10.E must be met.
- (21) Check required only when the low temperature overpressure protection system is in operation.
- (22) Not required during period of cold and refueling shutdowns, but must be performed prior to reactor criticality if it has not been performed during previous surveillance period.
- (23) Each train tested at least every 62 days on a staggered basis.
- (24) Neutron detectors excluded from calibration.

Unit 1 - Amendment No. ~~157~~, ~~174~~, 185

Unit 2 - Amendment No. ~~164~~, ~~175~~, 189



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 185

TO FACILITY OPERATING LICENSE NO. DPR-24

AND AMENDMENT NO. 189 TO FACILITY OPERATING LICENSE NO. DPR-27

WISCONSIN ELECTRIC POWER COMPANY

POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-266 AND 50-301

1.0 INTRODUCTION

By letters dated May 2, 1995, October 12, 1995, March 26, 1996, December 15, 1997, and May 27, 1998, the Wisconsin Electric (WE) Power Company (the licensee) requested amendments to the Technical Specifications (TS) appended to Facility Operating License No. DPR-24 for Point Beach Nuclear Plant, Unit 1, and Facility Operating License No. DPR-27 for Point Beach Nuclear Plant, Unit 2. The proposed amendments (TSCR-172) would revise Table 15.4.1-1, "Minimum Frequencies For Checks, Calibrations, and Tests Of Instrument Channels," to change the test frequency of the containment high range radiation monitor, revise note 7, and revise item 36 to clarify which monitors in the radiation monitoring system (RMS) support current TS or meet the requirements of 10 CFR 50.36.

The May 27, 1998, submittal provided additional clarifying information and updated TS pages. This information was within the scope of the original *Federal Register* notice and did not change the staff's initial no significant hazards considerations determination.

2.0 BACKGROUND

2.1 Relocation of TS

Section 182a of the Atomic Energy Act (the "Act") requires applicants for nuclear power plant operating licenses to include TS as part of the license. The Commission's regulatory requirements related to the content of TS are set forth in 10 CFR 50.36. That regulation requires that the TS include items in five specific categories, including (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TS.

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Section 50.36 also specifies four criteria to be utilized in order to determine whether a limiting condition for operation, its surveillance requirements, and actions shall be included in the TS. These are:

1. installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary;
2. a process variable, design feature, or operating restriction that is an initial condition of a design-basis accident (DBA) or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
3. a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design-basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier; and
4. a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The following TS that address radiation monitors are included in NUREG-1431, "Standard Technical Specifications Westinghouse Plants." The need to include radiation monitors in the TS is established by the consequences of the limiting DBA analysis and whether the control functions performed by the radiation monitor are credited in the accident analysis. If the radiation monitor is not relied upon in the analysis, the consequences must not exceed the consequences of a DBA.

- | | |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TS 3.3.3 | Post Accident Monitoring (PAM) Instrumentation
Includes containment area radiation monitors (High Range) |
| TS 3.3.5 | Containment Ventilation Isolation Instrumentation
Includes containment radiation gaseous and particulate monitors |
| TS 3.3.6 | Control Room Emergency Air Treatment System Actuation Instrumentation
Includes control room intake iodine, noble gas, and particulate radiation monitors |
| TS 3.4.15 | RCS Leakage Detection Instrumentation
Includes containment atmosphere radioactivity monitors relied upon to detect leakage of reactor coolant into the containment. Plant vent gaseous or particulate radiation monitors need to be addressed if they perform a leakage detection function. |
| TS 3.7.7 | Component Cooling Water System
Radioactivity monitor may need to be included if the system is not a normally closed system outside of containment and the radiation monitor provides a signal to ensure system closure. |

- TS 3.7.8 **Service Water System**
Radioactivity monitors may need to be included in TS if the radiation monitors provide control input to isolate valves that prevent discharges.
- TS 3.7.9 **Control Room Emergency Air Treatment System**
Includes gaseous, particulate, and iodine radiation monitors which result in actuation.
- TS 3.7.10 **Auxiliary Building Ventilation System**
Includes noble gas, particulate, and iodine monitors for the plant vent stack which result in actuation of equipment.

2.2 Reduced Surveillance Requirements for Testing During Power Operation

Generic Letter (GL) 93-05, "Line Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation," was issued to provide guidance to assist licensees in preparing a license amendment request to implement the recommendations for line-item TS improvements discussed in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements." As discussed in NUREG-1366, the staff found that while the majority of the testing at power is important, safety can be improved, equipment degradation decreased, and an unnecessary burden on personnel resources eliminated by reducing the amount of testing that the TS require during power operation. Licensees can propose changes to extend surveillance intervals if the recommendations of NUREG-1366 are compatible with plant operating experience. Specifically, the GL recommends, "In order to decrease licensee burden and increase the availability of radiation monitors, change the monthly channel functional test to quarterly."

3.0 EVALUATION

The licensee proposes to modify TS Table 15.4.1-1, "Minimum Frequencies For Checks, Calibrations, and Tests of Instrument Channels," to change the frequencies for Item 25, containment high range radiation monitors; revise Item 36, "Radiation Monitoring System," to identify only those monitors that need to be in the TS and change frequencies; correct the reference to the definition of low power operation from 15.1.n to 15.1.m; and revise the language for the overpressure mitigation system to the low temperature overpressure protection system.

3.1 Description of TS Requirements

TS 15.1.f defines the following terms used for instrumentation surveillances:

Channel Check - Channel check is a qualitative determination of acceptable operability by observation of channel behavior during operation. This determination shall include comparison of the channel with other independent channels measuring the same variable.

Channel Functional Test - A channel functional test consists of injecting a simulated signal into the channel to verify that it is operable, including alarm and/or trip initiating action.

Channel Calibration - Channel calibration consists of the adjustment of channel output such that it responds, with acceptable range and accuracy, to known values of the parameter which the channel measures. Calibration shall encompass the entire channel, including equipment action, alarm, or trip, and shall be deemed to include the channel functional test.

3.2 Description of Radiation Monitoring System

All radiation monitors listed on Tables 1 and 2 are connected through eight data acquisition modules to the RMS control terminal (CT). The CT continuously scans the associated RMS channels. If a channel changes from the "normal status," this would be readily apparent based on a status change on the RMS CT. This information is also relayed to the plant process computer system (PPCS.) The channel status indications include the following: NORMAL, FAILURE, UNINITIALIZED, MAINTENANCE/CALIBRATE, STANDBY, ALERT, HIGH ALARM AND FAIL HIGH. A status change also causes a control room alarm on the C-20 auxiliary system instrument panel. The automatic monitoring of the associated channels by the RMS CT and PPCS assist in the rapid detection of channel inoperability. The performance of channel checks and channel calibration will ensure that the monitors themselves are functioning properly. The design of the RMS CT and the presence of alarms on the PPCS obviates the need to perform monthly testing. Additionally, the RMS at Point Beach is within the scope of the Maintenance Rule as provided for in 10 CFR 50.65, which requires trending of failure data. Currently, the radiation system monitors, based on plant operating data, are considered highly reliable.

Effluent monitors generally have an associated background monitor. The readings associated with the background monitor are subtracted from the radiation monitor reading displayed at the CT. At Point Beach the operability of the effluent monitor includes the operability of its associated background monitor. Therefore, the background monitors are not included in the TS as separate monitors. The staff finds this to be acceptable.

3.3 Containment High Range Radiation Monitors

Table 15.4.1-1, Item 25 for the containment high range radiation monitors, 1(2)RE-126, 1(2)RE-127, and 1(2)RE-128, currently requires a check be performed each shift, calibration each refueling interval, and testing monthly. The licensee proposes to perform the check on a monthly basis during plant conditions when the monitors are required to be operable and to eliminate the table entry requiring a test on a monthly frequency. There is no proposed change to the calibration frequency. Based on the design of the RMS and its ability to alarm if the monitors fail, the licensee proposes to extend the interval for checking the monitors from each shift to monthly. Additionally, the licensee proposes to eliminate the testing requirement since these monitors are post-accident monitoring instrumentation that does not perform any trip or actuation function. The staff finds the changes to the surveillance requirements acceptable.

3.4 RMS Changes

The RMS is a system of monitors that includes area monitors (Table 1), process monitors (Table 2), and special particulate, iodine, and noble gas monitors (Table 3). Since many of these monitors do not meet 50.36 requirements for inclusion in the TS, WE submitted TSCR-172 to retain only those monitors required to be in TS. The radiation monitors retained in the TS include: waste disposal system (WDS) liquid monitor (RE-218), waste distillate overboard monitor (RE-223), "A" main steam line release monitor (RE-231), "B" main steam line release monitor (RE-232), control room monitor (RE-101), control room noble gas monitor (RE-235), and air ejector monitor (RE-215).

3.4.1 Deletion of Area Radiation Monitors

The area radiation monitors provide readings of radioactivity at various locations in the plant. The area radiation monitors are used by the health physics department to ensure doses are kept as low as reasonably achievable (ALARA). The ALARA program is included in TS 15.6.11, "Radiation Monitoring Program." The purpose of these monitors is to detect local radiation levels, not to detect a significant abnormal degradation of the reactor coolant pressure boundary or to provide information that is an initial condition of a DBA or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The area monitors are not part of the primary success path which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Neither are the area monitors a component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety. These monitors are not credited in any accident analyses. Since the area monitors do not meet any of the 10 CFR 50.36 requirements for inclusion in the TS and are controlled by plant procedures, the staff finds the deletion of the area monitors from the TS acceptable.

3.4.2 Evaluation of Process Monitors

Radiation monitor 1(2)RE-211, containment air particulate monitor, indicates particulate activity inside containment or purge exhaust stack. Radiation monitor 1(2)RE-212, containment noble gas monitor, provides indication of containment or purge exhaust stack noble gas activity. Radiation monitor 1(2)RE-211B provides background data for both RE-211 and RE-212. The function of RE-212 is to provide containment ventilation isolation that closes purge valves, secures forced vent, and puts the monitor in recirculation. Normally, a radiation monitor that causes an automatic actuation would be required to be included in the TS. As discussed in the staff's safety evaluation for NUREG-0737, "Clarification of TMI Action Plan Requirements," Item II.E.4.2(7), the containment purge/vent isolation valves must close on a high radiation signal, and this provides the bases for the inclusion of these monitors in NUREG-1431, TS 3.3.5, "Containment Ventilation Isolation Instrumentation." However, the staff determined that Point Beach Units 1 and 2 satisfied the requirements of NUREG-0737 by maintaining the purge/vent isolation valves sealed closed during plant operation (hot shutdown through power operation). These monitors are not credited in any accident analyses and do not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. Therefore, the staff finds the removal of the

containment air particulate monitors and the containment noble gas monitors from the TS acceptable.

RE-214 is provided to indicate high gaseous activity release from a gas decay tank or potential protected area boundary (PAB) airborne activity. Final Safety Analysis Report (FSAR) Section 14.2.3, "Accidental Release - Waste Gas," assumes that the activity is discharged to the atmosphere at ground level and is dispersed as a plume. Even though high readings on the monitor result in closure of the vent gas release valve and switching of the PAB vent discharge to the charcoal filters, no credit is taken for these actions in the accident analyses. This monitor is included in the Radiological Effluent Control Program Manual (RECM) and the Offsite Dose Calculation Manual (ODCM.) The monitor does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. Therefore, the staff finds the relocation of this monitor to the licensee-controlled documents acceptable.

1(2)RE-215 air ejector noble gas monitor is provided to indicate a steam generator primary-to-secondary leak. These radiation monitors are also sensitive to potential airborne radiation in the turbine hall. TS 15.3.1.D.8 requires that "Secondary coolant gross radioactivity shall be monitored continuously by an air ejector gas monitor." Therefore, the licensee has proposed retaining these monitors in the TS. The frequency for performing the check has been revised to daily and footnoted to state that the check is not required during periods of refueling shutdown, but must be performed prior to reactor criticality if it has not been performed during the previous surveillance period. The licensee proposes to calibrate each monitor during the respective refueling outage for its assigned unit which is consistent with the current calibration frequency. The test frequency for all monitors in the RMS is monthly. The licensee proposes to eliminate the testing requirement for the air ejector monitors. The elimination of the testing is based on the design of the RMS. The staff agrees that these monitors shall be retained in TS and that the changes associated with the check and calibration function are adequate. The staff further finds that additional testing is not required since the RMS has a self-checking function. Therefore, the staff finds the proposed changes acceptable.

1(2)RE-216 containment fan coolers service water liquid process monitor provides indication of potential contamination of cooling water (service water return). This monitor is on the service water system that is considered a closed system inside of containment. The monitor is for indication only and provides no control function. 1(2)RE-216 and its associated background monitor, 1(2)RE-216B, are included in Final Safety Analysis Report (FSAR) Section 11.2, the RECM, and the ODCM. The monitor does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. Therefore, the staff finds the relocation of this monitor to the licensee-controlled documents acceptable.

1(2)RE-217 component cooling water (CCW) liquid process monitor provides indication of CCW contamination closes the CCW surge tank vent. The licensee does not credit this monitor in any accident analyses. The surge tank vent is isolated during power operation. The monitor does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. Therefore, the staff finds the removal of this monitor from the TS acceptable.

Liquid process monitor, RE-218, monitors waste condensate activity being discharged. RE-218 and its associated background monitor, RE-218B, are used to detect radioactivity in the waste

disposal system discharge. The monitor will cause discharge valve, RCV-18, to close. WE proposes to retain this monitor in the TS. WE proposes to extend the interval for the channel functional test from monthly to quarterly. The decreased frequency from monthly to quarterly for the channel functional test is justified based on plant operating experience. The performance of a source check prior to start of a release provides assurance that the channel is responding properly to a source of radiation. The continuous automatic monitoring of the associated channels by the RME CT and the PPCS assist the rapid detection of channel inoperability during a release. The quarterly channel functional test is consistent with the channel functional test requirements for other channels that cause trip or initiation actions, such as, steam generator pressure and containment pressure. The proposed surveillance for RE-218 and RE-223 will continue to include channel checks each shift when a waste liquid release (discharge) is occurring. The staff concludes that the inclusion of these monitors in the TS based on WE's assessment of operating experience and the potential of releases to be significant to public health and safety, the changes in checking and calibration frequency, and the elimination of the testing frequency based on the design of the RMS CT and PPCS alarm functions are acceptable.

1(2)RE-219, steam generator blowdown liquid process monitor, provides indication of steam generator blowdown activity and steam generator tube leak rates. The monitor functions to shut blowdown valves, blowdown tank outlet valve, and steam generator sample valves. These monitors are set to prevent releases inside the plant, but the licensee does not credit these monitors for any accident analyses and the monitors do not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. The steam generator blowdown liquid process monitors are controlled by plant procedures. Changes to plant documents and procedures are controlled in accordance with the requirements of 10 CFR 50.59. Therefore, the staff finds the deletion of the steam generator blowdown liquid process monitors from the TS acceptable.

RE-220 spent fuel pit heat exchanger service water liquid process monitor provides indication of service water contamination from a spent fuel pool heat exchanger tube leak. RE-220B provides background data for RE-220. This monitor provides intermediate radiation monitoring indication to assist in locating potential leakage sources. The monitor is not credited in any accident analyses and does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. Therefore, the staff finds the removal of this monitor from the TS acceptable.

RE-221 drumming area vent stack noble gas monitor indicates noble gas activity released from spent fuel pit and drumming area, which may be indicative of a potential PAB airborne release. This monitor indicates activity from gaseous releases from the drumming area. The monitor has no control function. This effluent monitor does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. The licensee will control the monitor in accordance with the RECM and ODCM. Changes to plant documents and procedures are controlled in accordance with the requirements of 10 CFR 50.59. Therefore, the staff finds the relocation of the effluent monitor to the licensee-controlled documents acceptable.

1(2)RE-222 steam generator blowdown tank outlet liquid process monitor shuts the blowdown valves and blowdown tank outlet valve upon receipt of a high radiation signal. These monitors are set to prevent releases inside the plant, but the licensee does not credit these monitors for

any accident analyses and the monitors do not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. The staff finds that the steam generator blowdown liquid process monitors are described in the FSAR and any changes are controlled in accordance with the requirements of 10 CFR 50.59. Therefore, the staff finds the removal of these monitors from the TS acceptable.

RE-223 waste distillate discharge liquid process monitor monitors activity of waste distillate being discharged. If high radiation levels are detected, the monitor closes the discharge valve. WE has determined that this monitor should be retained in the TS. The frequency for checking and calibrating the monitor remains the same as the current TS. The proposed frequency for testing is quarterly rather than monthly. As stated in GL 93-05, the staff found that while the majority of the testing at power is important, safety can be improved, equipment degradation decreased, and an unnecessary burden on personnel resources eliminated by reducing the amount of testing that the TS require during power operation. WE's basis for extending the testing interval is based on the design of the RMS and the systems ability to assess faults and announce off normal conditions. The operability of the background monitor (RE-223B) is inherent in the operability of RE-223. The staff finds the retention of RE-223 in the TS and the extension of the testing interval acceptable.

RE-224 is the gas stripper building exhaust noble gas monitor. This monitor indicates activity from gaseous releases from letdown gas stripper building. The monitor has no control function. This effluent monitor does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. The licensee will control the monitor in accordance with the RECM and ODCM. Changes to plant documents and procedures are controlled in accordance with the requirements of 10 CFR 50.59. Therefore, the staff finds the relocation of the effluent monitor to the licensee-controlled documents acceptable.

RE-225 is the combined air ejector low range noble gas monitor. The purpose of this monitor is to monitor for potential indications of primary-to-secondary leaks in the steam generators. This monitor is redundant to monitors 1(2)RE-215. Therefore, the staff agrees that this redundant monitor does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS and can be controlled adequately by the RECM and ODCM. Changes to plant documents and procedures are controlled in accordance with the requirements of 10 CFR 50.59. Therefore, the staff finds the relocation of this monitor to the licensee-controlled documents acceptable.

1(2)RE-229 service water discharge liquid process monitor monitors activity of service water discharge and provides no actuation function to isolate the discharge. 1(2)RE-229B provides background data for RE-229. Operability of the background monitor is inherent in the definition of operability of 1(2)RE-229. The staff concludes that the check, calibration, and testing requirements for this effluent monitor can be relocated from the TS since its function is adequately described in the FSAR and the surveillance requirements included in the RECM and the ODCM. Changes to plant documents and procedures are controlled in accordance with the requirements of 10 CFR 50.59. The monitor does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. Therefore, the staff finds the relocation of this monitor to the licensee-controlled documents acceptable.

RE-230 retention pond discharge liquid process monitor monitors activity level in retention pond effluent and provides no actuation function to isolate the discharge. RE-230B provides background data for RE-230. The staff concludes that the check, calibration, and testing requirements for this effluent monitor and its associated background monitor can be relocated from the TS since the monitor's function is adequately described in the FSAR and the surveillance requirements included in the RECM and the ODCM. Changes to plant documents and procedures are controlled in accordance with the requirements of 10 CFR 50.59. The monitor does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. Therefore, the staff finds the relocation of this monitor to the licensee-controlled documents acceptable.

1(2)RE-231 for the "A" steam line atmospheric release monitors and 1(2)RE-232 for the "B" steam line atmospheric release monitors are being retained in the TS. These monitors were installed to meet the requirements of NUREG-0737 to provide the capability to assess releases via the main steam lines. WE proposes to decrease the frequency for checking the monitors from daily to monthly when the monitors are required to be operable. Additionally, the licensee proposes to delete the requirement to test monthly since these monitors are post-accident monitoring instrumentation that does not perform any trip or actuation function. The staff finds the retention of the monitors and the changes to the surveillance requirements acceptable.

RE-234, control room iodine monitor, monitors iodine activity in control room. RE-234B provides background data for RE-234. Monitor RE-234 provides no control function and the monitor is not relied upon to provide protective actions. The monitor is not credited in any accident analyses and does not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. Therefore, the staff finds the removal of this monitor from the TS acceptable.

RE-235 is the control room noble gas monitor. It monitors noble gas activity in the control room and will cause a shift in the control room ventilation to the recirculation mode. The licensee proposes to retain this monitor in the TS. The monitor will be checked each shift, calibrated on a refueling interval frequency, and tested quarterly. The basis for increasing the testing from monthly to each shift is based on the design of the RMS to detect and annunciate monitor failure. The staff finds the proposed changes to be acceptable.

3.4.3 Evaluation of System-Level Particulate, Iodine and Noble Gas (SPING) Monitors

There are four SPING monitors (Unit 1 containment purge exhaust stack, Unit 2 containment purge exhaust stack, auxiliary building exhaust stack, and the radwaste packaging (drumming) area exhaust stack. The sample points for each of these SPING units is downstream of the exhaust stack filters. Each SPING monitor has a data acquisition monitor (DAM) built into it, and each DAM is capable of serving nine detector inputs. Each DAM has a microcomputer that performs the task of data acquisition, history file management, operational status check, alarm determination, and interface with the input/output terminals.

Any of the following monitors can initiate a containment purge isolation:

- 1(2)RE-301 containment purge exhaust monitor (beta particulate)
- 1(2)RE-303 containment purge exhaust monitor (iodine)

- 1(2)RE-305 containment purge exhaust monitor (low range gas)
indicates activity in containment purge exhaust
- 1(2)RE-306 (area monitor)
- 1(2)RE-307 (mid range exhaust)
- 1(2)RE-309 (high range gas)

However, as discussed in the response to NUREG-0737, Item II.E.4.2(7), the requirement that the containment purge and vent valves must close on a high radiation signal was resolved by keeping the valves sealed closed during plant operating modes including hot shutdown, hot standby, startup, and power operation. Therefore, these monitors do not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. The monitors are described in the FSAR, and are controlled using plant procedures. Changes to plant documents and procedures are controlled in accordance with the requirements of 10 CFR 50.59. Therefore the staff finds these changes to be acceptable.

The following auxiliary building and drumming area exhaust monitors do not have a control function:

- RE-311 beta particulate
- RE-313 iodine
- RE-315 low range gas (ODCM Table 2-2)
- RE-316 area
- RE-317 mid range gas
- RE-319 high range gas

- RE-321 beta/particulate
- RE-323 iodine
- RE-325 low range gas (ODCM Table 2-2)
- RE-326 area
- RE-327 mid range gas

As discussed in the FSAR, Section 11.2.3, these isokinetic stack sampling system monitors provide the capability to sample both the auxiliary building vent stack and the drumming area vent stack for iodines and particulates during normal operations and accident conditions. These monitors do not provide any automatic isolation signals and do not meet any of the 10 CFR 50.36 requirements for inclusion in the TS. The staff finds that the SPING monitors can be adequately controlled by plant procedures and by retaining the monitor description in the FSAR. Changes to plant documents and procedures are controlled in accordance with the requirements of 10 CFR 50.59. Therefore, the staff finds these changes to be acceptable.

3.4.4 Miscellaneous Changes

The licensee submitted changes to correct the definition of low power operation from 15.1.n to 15.1.m; and revise the language for the overpressure mitigation system (OMS) to the low temperature overpressure protection (LTOP) system. The definition included in 15.1.n is for the fire water suppression system whereas the definition included in 15.1.m is for low power operation. The change in the designation of the OMS to the LTOP system was included in TS

Amendments 172/176. The failure to change the note in Table 15.4.1-1 was an administrative oversight. The staff finds the proposed administrative changes acceptable.

4.0 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.

5.0 ENVIRONMENTAL CONSIDERATION

These amendments change requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. 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 (63 FR 25122). 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.

6.0 CONCLUSION

The Commission 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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Date: July 17, 1998

TABLE 1
RADIATION MONITORING SYSTEM - AREA MONITORS

DETECTOR NO.	NAME	INDICATION
RE-101 ⁽¹⁾	control room monitor	indicates dose rates in control room
1(2)RE-102	containment low range monitor	provides dose rates within containment around access hatch
RE-103	chemistry lab area monitor	provides indication of dose rates in chemistry lab and associated hallways
1(2)RE-104	charging pumps low-range area monitor	indicates dose rates in hallways east of charging pump cubicles
RE-105	spent fuel pit low range area monitor	provides indication of dose rates in the vicinity of spent fuel pit (affected by high radiation levels in containment)
1(2)RE-106	primary side sample room low range area monitor	indicates dose rate inside sample room when sampling system is in operation
1(2)RE-107	seal table area monitor	provides an indication of general dose rate near seal table
RE-108	drumming station area monitor	provides dose rate indication within the drumming station
1(2)RE-109	post-accident sample line monitor	provides an indication of failed fuel by monitoring the primary coolant sample activity
RE-110	Safety Injection (SI) pump room low range monitor	provides an indication of the dose rate in general area of SI pumps
RE-111	C59 panel area monitor	provides general area dose rate near C59 panel
RE-112	central PAB	indicates general area dose rate on PAB EI. 8'
RE-113	PAB Elevation (EI.) -19' area monitor	provides an indication of the dose rate in PAB EI. -19' sump and general area
RE-114	CVCS holdup tank area monitor	indicates general area dose rate in cubicle
RE-116	letdown system valve gallery area monitor	indicates general area dose rate in letdown valve gallery
1(2)RM-126 1(2)RM-127 1(2)RM-128	unit 1(2) containment high range radiation monitors	indication is via readout module in the computer room and on the auxiliary safety instrumentation panels

TABLE 1--continued

DETECTOR NO.	NAME	INDICATION
1(2)RE-134	charging pump room high range area monitor	provides an indication of general area dose rates in the event low range monitor saturates
RE-135	spent fuel pit high range area monitor	provides an indication of general area dose rates in the event low range monitor saturates
1(2)RE-136	primary side sample room high range area monitor	provides an indication of general area dose rates in the event low range monitor saturates
RE-140	SI pump room high range are monitor	provides an indication of general area dose rates in the event low range monitor saturates

⁽¹⁾ Refer to Table 4 for control function

TABLE 2
RADIATION MONITORING SYSTEM - PROCESS MONITORS

DETECTOR NO.	NAME	INDICATION
1(2)RE-211	containment air particulate monitor	indicates particulate activity inside containment or purge exhaust stack
1(2)RE-211B	background monitor for RE-211	background data for both RE-211 and RE-212
1(2)RE-212 ⁽¹⁾	containment noble gas monitor	provides indication of containment, or purge exhaust stack noble gas activity
RE-214 ⁽¹⁾	PAB	indicates high gaseous activity release from gas decay tanks or potential PAB airborne activity
1(2)RE-215	condenser air ejector noble gas monitor	indicative of steam generator primary-to-secondary leak. May be indicative of potential airborne radiation exposure in turbine hall.
1(2)RE-216	containment fan coolers liquid process monitor	provides indication of potential contamination of cooling water (service water return)
1(2)RE-216B	background monitor for 1RE-216	provides background data for RE-216
1(2)RE-217 ⁽¹⁾	component cooling water liquid process monitor	provides indication of component cooling water contamination
RE-218 ⁽¹⁾	waste disposal system discharge liquid process monitor	monitors waste condensate activity being discharged
RE-218B	background monitor for RE-220	provides background data for RE-218
1(2)RE-219 ⁽¹⁾	steam generator blowdown liquid process monitor	provides indication of steam generator blowdown activity and steam generator tube leak rates
1(2)RE-219B	background monitor for RE-219	provides background data for RE-219
RE-220	spent fuel pit (SFP) heat exchanger service water liquid process monitor	provides indication of service water contamination from a SFP heat exchanger tube leak
RE-220B	background monitor for RE-220	provides background data for RE-220
RE-221	drumming area vent stack noble gas monitor	indicates noble gas activity released from spent fuel pit and drumming area, which may be indicative of a potential PAB airborne release

TABLE 2--continued

DETECTOR NO.	NAME	INDICATION
1(2)RE-222 ⁽¹⁾	steam generator blowdown tank outlet liquid process monitor	steam generator blowdown tank outlet liquid process monitor
RE-223 ⁽¹⁾	waste distillate discharge liquid process monitor	monitors activity of waste distillate being discharged
RE-223B	background monitor for RE-223	provides background for RE-223
RE-224	gas stripper building exhaust noble gas monitor	indicates activity of gaseous release from letdown gas stripper building
RE-225	combined air ejector low range noble gas monitor	indicative of primary-to-secondary leak in steam generators. may also indicate potential radiation exposure sources within turbine building
RE-226	combined air ejector high range noble gas monitor	indicative of primary-to-secondary leak in steam generators. may also indicate potential radiation exposure sources within turbine building
1(2)RE-229	service water discharge liquid process monitor	monitors activity of service water discharge
1(2)RE-229B	background monitor for Re-229	provides background data for RE-229
RE-230	retention pond discharge liquid process monitor	monitors activity level in retention pond effluent
RE-230B	background monitor for RE-230	provides background data for Re-230
1(2)RE-231	steam line "A" atmospheric release monitor	monitors activity of steam released - steam line "A"
1(2)RE-232	steam line "B" atmospheric release monitor	monitors activity of steam released - steam line "B:
RE-234	control room iodine monitor	monitors iodine activity in control room
RE-234B	control room iodine and noble gas sample system background monitor	provides background data for RE-234
RE-235 ⁽¹⁾	control room noble gas monitor	monitors noble gas activity in control room

⁽¹⁾ Refer to Table 4 for control function

TABLE 3
SPECIAL PARTICULATE, IODINE, AND NOBLE GAS MONITORS

DETECTOR NO.	NAME	INDICATION
1(2)RE-301	containment purge exhaust monitor (beta particulate)	indicates activity in containment purge exhaust
1(2)RE-303	containment purge exhaust monitor (iodine)	indicates activity in containment purge exhaust
1(2)RE-305 ⁽¹⁾	containment purge exhaust monitor (low range gas)	indicates activity in containment purge exhaust
1(2)RE-306	containment purge exhaust monitor (area monitor)	indicates activity in containment purge exhaust
1(2)RE-307	containment purge exhaust monitor (mid range gas)	indicates activity in containment purge exhaust
1(2)RE-309	containment purge exhaust monitor (high range gas)	indicates activity in containment purge exhaust
RE-311	auxiliary building exhaust monitor (beta particulate)	indicates activity in auxiliary building exhaust
RE-313	auxiliary building exhaust monitor (iodine)	indicates activity in auxiliary building exhaust
RE-315	auxiliary building exhaust monitor (low range gas)	indicates activity in auxiliary building exhaust
RE-316	auxiliary building exhaust monitor (area monitor)	indicates activity in auxiliary building exhaust
RE-317	auxiliary building exhaust monitor (mid range gas)	indicates activity in auxiliary building exhaust
RE-319	auxiliary building exhaust monitor (high range gas)	indicates activity in auxiliary building exhaust
RE-321	drumming area exhaust monitor (beta particulate)	indicates activity in drumming area exhaust
RE-323	drumming area exhaust monitor (iodine)	indicates activity in drumming area exhaust
RE-325	drumming area exhaust monitor (low range gas)	indicates activity in drumming area exhaust
RE-326	drumming area exhaust monitor (area monitor)	indicates activity in drumming area exhaust
RE-327	drumming area exhaust monitor (mid range gas)	indicates activity in drumming area exhaust

⁽¹⁾ Refer to Table 4 for control function

TABLE 4
RADIATION MONITOR CHANNELS WITH CONTROL FUNCTIONS

DETECTOR NO.	NAME	INDICATION
RE-101	control room area	shifts control room ventilation to Mode 3 (100 percent recirculation)
1(2)RE-212	containment noble gas	containment ventilation isolation closes purge valves, secures forced vent and puts monitor in recirculation
RE-214	PAB vent	closes vent gas release valve and switches PAB vent discharge to charcoal filters
RE-217	component cooling water	closes CCW surge tank vent
RE-218	waste condensate overboard	closes waste condensate pump valve
1(2)RE-219	steam generator blowdown	shuts blowdown valves, blowdown tank outlet valve, and steam generator sample valves
1(2)RE-222	blowdown tank area	shuts blowdown valves and blowdown tank outlet valve
RE-223	waste distillate overboard	closes discharge valve
RE-235	control room noble gas	shifts control room ventilation to Mode 3 (100 percent recirculation)
1(2)RE-305	containment noble gas	containment ventilation isolation