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10 CFR 50.90

November 4, 2016

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-0001

> Peach Bottom Atomic Power Station, Units 2 and 3 Renewed Facility Operating License Nos. DPR-44 and DPR-56 NRC Docket Nos. 50-277 and 50-278

SUBJECT: Request for License Amendment to Revise Turbine Condenser – Low Vacuum Scram Instrumentation Function Allowable Value

Pursuant to 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (EGC), proposes a change to the Technical Specifications (TS), Appendix A of Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, respectively.

The proposed amendment would revise the TS Allowable Value (AV) for the Reactor Protection System (RPS) Instrumentation Function 10, "Turbine Condenser – Low Vacuum," specified in TS Table 3.3.1.1-1, "Reactor Protection System Instrumentation."

EGC has concluded that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92.

The proposed change has been approved by the PBAPS Plant Operations Review Committee in accordance with the requirements of the EGC Quality Assurance Program.

This license amendment request contains no regulatory commitments.

Attachment 1 provides the evaluation of the proposed change. Attachment 2 provides a copy of the marked up TS pages that reflect the proposed change.

EGC requests approval of the proposed amendment by October 23, 2017. Upon NRC approval, the amendment shall be implemented no later than startup from the subsequent refueling outage P3R21 for PBAPS Unit 3, which is currently scheduled for completion in the Fall of 2017. For Unit 2, the amendment will be implemented no later than startup from refueling outage P2R22, which is currently scheduled for completion in the Fall of 2018.

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These implementation times allow for the setpoint changes to occur during refueling outages, which is preferable from a risk perspective to performing the changes on line.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), EGC is notifying the Commonwealth of Pennsylvania of this application for license amendment by transmitting a copy of this letter and its attachments to the designated State Official.

If you have any questions or require additional information, please contact Stephanie J. Hanson at 610-765-5143.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 4^{th} day of November 2016.

Respectfully,

James Barstow Director, Licensing & Regulatory Affairs Exelon Generation Company, LLC

Attachments: 1. Evaluation of Proposed Change 2. Markup of Technical Specifications Pages

cc: USNRC Region I, Regional Administrator USNRC Senior Resident Inspector, PBAPS USNRC Project Manager, PBAPS R. R. Janati, Pennsylvania Bureau of Radiation Protection S. T. Gray, State of Maryland

ATTACHMENT 1

EVALUATION OF PROPOSED CHANGE

Peach Bottom Atomic Power Station, Units 2 and 3

Docket Nos. 50-277 and 50-278

Subject: Request for License Amendment to Revise Turbine Condenser – Low Vacuum Scram Instrumentation Function Allowable Value

- 1.0 SUMMARY DESCRIPTION
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1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (EGC), proposes a change to the Technical Specifications (TS), Appendix A of Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, respectively.

The proposed amendment would revise the TS Allowable Value (AV) for the Reactor Protection System (RPS) Instrumentation Function 10, "Turbine Condenser – Low Vacuum," specified in TS Table 3.3.1.1-1, "Reactor Protection System Instrumentation."

The purpose of the proposed AV change is to reduce potential vulnerability associated with inadvertent scrams due to low condenser vacuum. Reducing the RPS Turbine Condenser – Low Vacuum AV from 23.0 inches Hg vacuum to 20.0 inches Hg vacuum will provide additional margin, thereby minimizing the potential for inadvertent scrams due to low condenser vacuum. The revision to the AV does not affect the overall redundancy and diversity of the RPS and does not deviate from what is assumed in the transient analysis.

2.0 DETAILED DESCRIPTION

The RPS is a safety related plant protection system. The RPS initiates a reactor scram when one or more monitored parameters exceed their specified limits, to preserve the integrity of the fuel cladding and the Reactor Coolant System (RCS) and minimize the energy that must be absorbed following a loss of coolant accident (LOCA). The protection and monitoring functions of the RPS have been designed to ensure safe operation of the reactor. This is achieved by specifying limiting safety system settings (LSSSs) in terms of parameters directly monitored by the RPS. The LSSSs establish the threshold for protective system action to prevent exceeding acceptable limits, including Safety Limits (SLs) during Design Basis Accidents.

PBAPS TS Section 3.3.1.1 provides the requirements for RPS instrumentation. The various functions of RPS instrumentation for LSSSs and limiting conditions for operation (LCOs) are specified in Table 3.3.1.1-1, along with the applicable operational modes, surveillance requirements (SRs), and AVs. PBAPS TS Table 3.3.1.1-1, Function 10, "Turbine Condenser – Low Vacuum," is required to be operable in Mode 1, with an AV of \geq 23.0 inches Hg vacuum.

The Turbine Condenser – Low Vacuum Function protects the integrity of the main condenser by scramming the reactor and thereby decreasing the severity of the low condenser vacuum transient on the condenser. This function also ensures integrity of the reactor in the event of loss of its normal heat sink. The reactor scram on a Turbine Condenser – Low Vacuum signal will occur prior to a reactor scram from a Turbine Stop Valve – Closure signal on low condenser vacuum. This function is not specifically credited in any accident analysis but is in TS for the overall redundancy and diversity of the RPS as required by the NRC-approved licensing basis.

Turbine Condenser – Low Vacuum signals are initiated from four vacuum pressure transmitters that provide inputs to associated trip systems. There are two trip systems and two channels per trip system. Each trip system is arranged in a one-out-of-two logic and both trip systems must be tripped in order to scram the reactor.

The Turbine Condenser – Low Vacuum Allowable Value is specified to ensure that a scram occurs prior to the integrity of the main condenser being breached.

The proposed change to the PBAPS, Units 2 and 3, TS is summarized below:

 PBAPS TS Table 3.3.1.1-1, "Reactor Protection System Instrumentation," Function 10, "Turbine Condenser – Low Vacuum," specifies an AV of "≥ 23.0 inches Hg vacuum." This AV is being revised to "≥ 20.0 inches Hg vacuum."

A markup of the proposed TS change is provided in Attachment 2.

3.0 TECHNICAL EVALUATION

EGC has determined that the low condenser vacuum scram set point can be reduced. In order to reduce potential vulnerability associated with inadvertent scrams due to low condenser vacuum, EGC proposes to lower the TS AV for the RPS Turbine Condenser Low – Vacuum Function at PBAPS.

Due to increased steam flow at Extended Power Uprate (EPU) conditions, it has been assessed that condensate temperature increases resulting in increased condenser pressure (i.e., reduction in condenser vacuum). Increased condensate temperatures have resulted in power derates. Therefore, it is desirable to gain additional margin to reduce the likelihood of a scram due to condenser low vacuum condition.

The purpose of the condenser low vacuum turbine trip is to protect the main condenser against overpressure on loss of condenser vacuum. A condenser low vacuum condition provides a signal to trip the main turbine by providing automatic closure to the turbine stop valves. To anticipate the transient and scram, which results from the closure of the turbine stop valves, a condenser low vacuum condition initiates a reactor scram. The condenser low vacuum scram trip setting is selected to initiate a reactor scram prior to initiation of closure of the Turbine Stop Valves.

As discussed in PBAPS UFSAR Section 14.5.1, events that result directly in significant nuclear system pressure increases are those that result in a sudden reduction of steam flow while the reactor is operating at power. In addition to a reactor scram, a loss of condenser vacuum also results in a main turbine trip. An instantaneous loss of condenser vacuum is a nearly identical transient, with essentially simultaneous scrams from the low vacuum signal and the turbine stop valve position indicating signals. For the loss of vacuum, the feedwater turbines would also be tripped. However, the parameters of main concern, fuel thermal margin and margin to vessel overpressure, are not significantly different from the analysis performed for the turbine trip (no bypass) transient, which is reanalyzed each cycle to evaluate the required core thermal operating limits (i.e., Minimum Critical Power Ratio).

EGC's procedure CC-MA-103-2001, "Setpoint Methodology for Peach Bottom Power Atomic Station and Limerick Generating Station," establishes the methods for determining instrument loop uncertainties and combining those uncertainties to determine allowable values, instrument setpoints, and associated tolerances for plant instrumentation and surveillance procedure

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acceptance criteria. This procedure also incorporates the requirements of Technical Specification Task Force, TSTF-493-A, Revision 4, "Clarify Application of Setpoint Methodology for LSSS Functions."

CC-MA-103-2001 is based on General Electric's NEDC-31336 P-A, September 1996, - "General Electric Company Instrument Setpoint Methodology (Proprietary)." This NRC-approved topical report ensures that nominal trip setpoints, actual trip setpoints, allowable values, and required as-left and as-found tolerances are determined using consistent methods and provides the controls to ensure that the calculations and basis for these values are documented and retrievable.

Using the EGC setpoint methodology program, the current TS-based approved calculation contains the following parameters:

- Analytical Limit (AL) = 22.00 inches Hg vacuum
- Allowable Value (AV) = 23.00 inches Hg vacuum
- Actual Trip Setpoint (ATSP) = 23.45 inches Hg vacuum

Because the trip setpoint is not assumed in the transient analyses, it is planned to lower the AL by an amount to maintain adequate margin between the AL and the new AV, which will be reflected in the final calculation. This will ensure that the RPS function still occurs before the Turbine Stop Valve Closure scram function while preserving the assumptions of the plant licensing basis.

Upon implementation of the proposed AV change, the Turbine Condenser – Low Vacuum scram instrument function at PBAPS Units 2 and 3 will continue to serve as an anticipatory signal to the turbine stop valve closure scram function (i.e., a scram signal generated with a turbine trip - TS Table 3.3.1.1-1, Function 8). As such, the Turbine Condenser – Low Vacuum scram function does not directly protect a Safety Limit. Consistent with the guidance in Regulatory Issue Summary (RIS) 2006-17, "NRC Staff Position on the Requirements of 10 CFR 50.36, 'Technical Specifications,' Regarding Limiting Safety System Settings During Periodic Testing and Calibration of Instrument Channels," and the listing of Instrumentation functions within the scope of Attachment A of TSTF-493-A, Revision 4, Clarify Application of Setpoint Methodology for LSSS Functions, the setpoint change for the Turbine Condenser – Low Vacuum setpoint would not require implementation of TSTF-493-A, Revision. 4.

The proposed LAR does not change the sequential relationship of the condenser low vacuum scram and turbine trip. The Automatic Scram signal (ATSP greater than or equal to 20.45 inches Hg vacuum) will still occur prior to the Turbine Trip signal (ATSP 20.0 inches Hg vacuum). This aligns with UFSAR Section 7.2 in that the condenser low vacuum scram is an anticipatory trip prior to the scram that would result from the closure of the main turbine stop valves.

Current Peach Bottom configuration Relative to Condenser Vacuum

Normal Vacuum	27 Inch Hg Vacuum
Low Vacuum Alarm	24.9 Inch Hg Vacuum
Manual Rx Scram - Low Condenser Vacuum	24 Inch Hg Vacuum
Auto Rx Scram - Low Cond. Vacuum	23 Inch Hg Vacuum
(Allowable Value)	
Turbine Trip (Rx Scram when power \geq 26.7%)	20 Inch Hg Vacuum
Bypass Valve Closure	7 Inch Hg Vacuum

New Proposed Peac	n Bottom co	onfiguration	Relative to	Condenser	Vacuum
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Auto Rx Scram - Low Cond. Vacuum	20 Inch Hg Vacuum
(Allowable Value)	Actual trip setpoint will be set at 20.45" or
	greater to ensure no overlap between Auto
	scram and Turbine Trip
Turbine Trip (Rx Scram when power \geq 26.7%)	20 Inch Hg Vacuum
Rx Manual Scram	23 Inch Hg Vacuum (must be maintained at 23 Inch or greater to ensure Turbine manufacturer requirements are met)

The condenser low vacuum scram is not specifically credited in any accident analysis. However, PBAPS UFSAR Section 14.9 describes the Control Rod Drop Accident which assumes condenser integrity. The integrity of the condenser is not compromised by the proposed changes because the reactor will be shut down using both diverse and redundant tripping to ensure fission products are not released.

4.0 **REGULATORY EVALUATION**

4.1 Applicable Regulatory Requirements/Criteria

The following regulatory requirement was considered:

Title 10 of the Code of Federal Regulations (10 CFR), Section 50.36, "Technical specifications," in which the Commission established its regulatory requirements related to the contents of the TS. Specifically, 10 CFR 50.36(c)(1)(ii)(A) requires that the Technical Specifications include Limiting Safety System Settings (LSSSs) for variables that have significant safety functions. For variables on which a Safety Limit (SL) has been placed, the LSSS must be chosen to initiate automatic protective action to correct abnormal situations before the SL is exceeded. The regulation also requires appropriate action if it is determined that the automatic safety system does not function as required to protect an SL.

Upon implementation of the proposed AV change, the Turbine Condenser – Low Vacuum scram instrument function at PBAPS Units 2 and 3 will continue to serve as an anticipatory signal to the turbine stop valve closure scram function (i.e., a scram signal generated with a turbine trip - TS Table 3.3.1.1-1, Function 8).

The proposed change does not involve any physical changes to the structures, systems, or components (SSCs) in the plant. Further, the proposed change does not alter or prevent the ability of SSCs from performing their intended function to mitigate the consequences of an event.

4.2 <u>Precedence</u>

The proposed change to revise the Turbine Condenser – Low Vacuum Allowable Value is similar to that which was approved for Dresden and Quad Cities (Reference 1).

4.3 No Significant Hazards Consideration

Exelon Generation Company, LLC (EGC), proposes a change to the Technical Specifications (TS), Appendix A of Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, respectively.

The proposed amendment would revise the TS Allowable Value (AV) for the PBAPS Reactor Protection System (RPS) Instrumentation Function 10, "Turbine Condenser - Low Vacuum," specified in TS Table 3.3.1.1-1, "Reactor Protection System Instrumentation."

EGC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change implements a revised AV for the Turbine Condenser – Low Vacuum scram instrument function at PBAPS.

The proposed change to the PBAPS Turbine Condenser – Low Vacuum scram AV does not require modifying any system interface or affect the probability of any event initiators at the facility. Overall RPS performance will remain within the bounds of the previously performed accident analyses, since no hardware changes are proposed.

There will be no degradation in the performance of, or an increase in the number of challenges imposed on safety-related equipment that are assumed to function during an accident situation. The proposed change will not alter any assumptions or change any mitigation actions in the radiological consequence evaluations in the UFSAR. The proposed change is consistent with safety analysis assumptions and resultant consequences.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change to the PBAPS Turbine Condenser – Low Vacuum scram AV does not affect the design, functional performance, or operation of the facility. Similarly, the proposed change does not affect the design or operation of any SSCs involved in the mitigation of any accidents, nor does it affect the design or operation of any component in the facility such that new equipment failure modes are created.

No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this change. There will be no adverse effect or challenges imposed on any safety-related system as a result of this change.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed change does not affect the acceptance criteria for any analyzed event, nor is there a change to any Safety Analysis Limit. There will be no effect on the manner in which safety limits, limiting safety system settings, or limiting conditions for operation are determined nor will there be any effect on those plant systems necessary to assure the accomplishment of protection functions.

The purpose of the condenser low vacuum turbine trip is to protect the main condenser against overpressure on loss of condenser vacuum. A condenser low vacuum condition provides a signal to trip the main turbine by providing automatic closure to the turbine stop valves. To anticipate the transient and scram which results from the closure of the turbine stop valves, a condenser low vacuum condition initiates a reactor scram. The condenser low vacuum scram trip setting is selected to initiate a reactor scram prior to initiation of closure of the Turbine Stop Valves.

The proposed LAR does not change the sequential relationship of the condenser low vacuum scram and turbine trip. The Automatic Scram signal (Actual Trip Setpoint greater than or equal to 20.45 inches Hg vacuum) will still occur prior to the Turbine Trip signal (Actual Trip Setpoint 20.0 inches Hg vacuum). This aligns with UFSAR Section 7.2 in that the condenser low vacuum scram is an anticipatory trip prior to the scram that would result from the closure of the main turbine stop valves.

The condenser low vacuum scram is not specifically credited in any accident analysis. The integrity of the condenser is not compromised by the proposed change because the reactor will be shut down using both diverse and redundant tripping to ensure fission products are not released.

Therefore, the proposed change does not involve a significant reduction in the margin of safety.

Based on the above, EGC concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.4 Conclusions

In conclusion, based on the considerations discussed above, (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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCE

 Letter from J. Wiebe (U.S. NRC) to C. G. Pardee (Exelon Generation Company, LLC), "Dresden Nuclear Power Station, Units 2 and 3 and Quad Cities Nuclear Power Station, Units 1 and 2 – Issuance of Amendments Regarding Turbine Condenser Vacuum – Low Scram Instrumentation Setpoint (TAC Nos.MD6250, MD6251, MD6252 and MD6253)" dated April 18, 2008 (ADAMS Accession No. ML081060235).

ATTACHMENT 2

Markup of Technical Specifications Pages

Peach Bottom Atomic Power Station, Units 2 and 3 Renewed Facility Operating License Nos. DPR-44 and DPR-56 Docket Nos. 50-277 and 50-278

Request for License Amendment to Revise Turbine Condenser – Low Vacuum Scram Instrumentation Function Allowable Value

Unit 2 TS Page

3.3-8

Unit 3 TS Page

3.3-8

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
3.	Reactor Pressure —High	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 1085.0 psig
4.	Reactor Vessel Water Level-Low (Level 3)	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 1.0 inches
5.	Main Steam Isolation Valve —Closure	1	8	F	SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 10% closed
6.	Drywell Pressure—High	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 2.0 psig
7.	Scram Discharge Volume Water Level⊣High	1,2	2	G	SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 50.0 gallons
		5(a)	2	Н	SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17	≤ 50.0 gallons
8.	Turbine Stop Valve-Closure	≥ 26.7% RTP	4	E	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 10% closed
9.	Turbine Control Valve Fast Closure, Trip Oil Pressure—Low	≥ 26.7% RTP	2	E	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 500.0 psig
10.	Turbine Condenser-Low Vacuum	1	2	F	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 23.0 inches Hg vacuum
11.	Main Steam Line —High Radiation	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.10 SR 3.3.1.1.16 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 15 X Full Power Background
12.	Reactor Mode Switch — Shutdown Position	1,2	1	G	SR 3.3.1.1.14 SR 3.3.1.1.17	NA
		5(a)	1	Н	SR 3.3.1.1.14 SR 3.3.1.1.17	NA

Table 3.3.1.1–1 (page 2 of 3) Reactor Protection System Instrumentation

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

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	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
3.	Reactor Pressure—High	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 1085.0 psig
4.	Reactor Vessel Water Level-Low (Level 3)	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 1.0 inches
5.	Main Steam Isolation Valve-Closure	1	8	F	SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 10% closed
6.	Drywell Pressure-High	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 2.0 psig
7.	Scram Discharge Volume Water Level—High	1,2	2	G	SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 50.0 gallons
		5(a)	2	н	SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17	≤ 50.0 gallons
8.	Turbine Stop Valve-Closure	≥ 26.7% RTP	4	E	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 10% closed
9.	Turbine Control Valve Fast Closure, Trip Oil Pressure-Low	≥ 26.7% RTP	2	E	SR 3.3.1.1.9 SR 3.3.1.1.13 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 500.0 psig
10.	Turbine Condenser — Low Vacuum	1	2	F	SR 3.3.1.1.1 SR 3.3.1.1.9 SR 3.3.1.1.15 SR 3.3.1.1.17 SR 3.3.1.1.18	≥ 23.0 inches Hg vacuum
11.	Deleted					
12.	Reactor Mode Switch- Shutdown Position	1,2	1	G	SR 3.3.1.1.14 SR 3.3.1.1.17	NA
		5(a)	1	Н	SR 3.3.1.1.14 SR 3.3.1.1.17	NA

Table 3.3.1.1–1 (page 2 of 3) Reactor Protection System Instrumentation

(continued)

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.