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U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Stop OP1-17
Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED LICENSE AMENDMENT
NUMBERS 260 FOR UNIT 1 AND 225 FOR UNIT 2
ADS-LPCI DISCHARGE PRESSURE
TS 3.3.5.1-1, FUNCTION 4.f AND 5.f
PLA-5722**

Docket Nos. 50-387
and 50-388

Pursuant to 10 CFR 50.90, PPL Susquehanna, LLC (PPL), hereby requests amendments to the Susquehanna Steam Electric Station (SSES) Unit 1 and Unit 2 Technical Specifications (TS), as described in the enclosure. The proposed amendments would change Technical Specification Table 3.3.5.1-1 to clarify that four (4) Low Pressure Coolant Injection Pump Discharge Pressure-High Channels are required per function. The proposed change will more clearly present the requirement, consistent with the Bases Description. Since there is no change in the actual channels required operable, this is an editorial change only.

As demonstrated in the enclosed Evaluation, the proposed amendments do not involve a significant hazards consideration.

PPL Susquehanna requests approval of the proposed changes to the SSES Technical Specifications by March 2005. Once approved, they will be implemented within 60 days.

Attachments 1 and 2 are the Technical Specifications marked-up and retyped.

There are no regulatory commitments associated with the proposed changes.

The need for the changes has been discussed with the SSES NRC Project Manager.

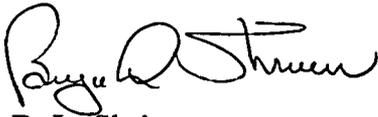
The proposed changes have been approved by the SSES Plant Operations Review Committee and reviewed by the Susquehanna Review Committee. In accordance with 10 CFR 50.91(b), PPL Susquehanna LLC is providing the Commonwealth of Pennsylvania with a copy of this proposed License Amendment request.

A001

Should you have any questions or require additional information, please contact Mr. John M. Oddo at (610) 774-7596.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 03/04/04



B. L. Shriver

Enclosures:
PPL Susquehanna Evaluation of the Proposed Changes

Attachments:
Attachment 1 – Proposed Technical Specification Changes (Mark-up)
Attachment 2 – Proposed Technical Specification Pages (Retyped)

Copy: NRC Region 1
Mr. R. Guzman, NRC Project Manager
Mr. S. Hansell, NRC Sr. Resident Inspector
Mr. R. Janati DEP/BRP

Enclosure to PLA-5722

PPL Susquehanna Evaluation of Proposed ADS-LPCI Discharge Pressure, TS 3.3.5.1-1, Function 4.f and 5.f Change

1. DESCRIPTION
 2. PROPOSED CHANGE
 3. BACKGROUND
 4. TECHNICAL ANALYSIS
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-

**Subject: Application for Amendment to Technical Specifications (TS)
Table 3.3.5.1-1 for ADS-LPCI Discharge Pressure Function
4.f and 5.f**

1.0 DESCRIPTION

This is a request to amend Operating Licenses NPF-14 and NPF-22 for PPL Susquehanna, LLC (PPL), Susquehanna Steam Electric Station Units 1 and 2 (SSES) respectively.

The proposed editorial change revises SSES Technical Specifications (TS) Unit 1 and Unit 2 TS 3.3.5.1, "Emergency Core Cooling System (ECCS) Instrumentation." Specifically Table 3.3.5.1-1, Functions 4.f and 5.f, "Low Pressure Coolant Injection Pump Discharge Pressure – High," for Automatic Depressurization System (ADS) trip system A and B. The "Required Channels Per Function" is revised from "2" to "4."

The "2" required low pressure coolant injection (LPCI) pump discharge pressure channels is interpreted as "2 per pump" with two LPCI pumps supporting each trip system; resulting in a total of "4" channels required for each trip system. Consistent with the typical definition of channel, this change will more clearly present the requirement; minimizing the potential for misinterpretation and operator error in implementation of the requirements. Since there is no change in the actual channels required operable, this is an editorial change only.

Issuance of this change is requested by March, 2005 with a 60-day implementation date.

2.0 PROPOSED CHANGE

The proposed editorial change revises Table 3.3.5.1-1, Functions 4.f and 5.f, Low Pressure Coolant Injection Pump Discharge Pressure – High, for Automatic Depressurization System (ADS) trip system A and B, respectively, from "2" to "4."

Each ADS trip system must have the "2" discharge pressure permissive channels for each of the two low pressure coolant injection (LPCI) pumps associated with that trip system operable. This results in all "4" channels associated with the LPCI discharge pressure permissive for that ADS trip system to be required operable. This reflects the current PPL implementation as delineated in the SSES TS Bases (refer to Attachment 2) that the current "2" required channels is applied separately to each LPCI pump. As such, this change is editorial.

The associated Bases support the intended requirement for "4" LPCI discharge pressure permissive channels for each ADS trip system; equivalent to "2" channels for each associated LPCI pump. As such no Bases changes are required to support this change.

3.0 BACKGROUND

The depressurization by automatic action of the ADS control system is intended to reduce reactor vessel pressure during a loss of coolant accident (LOCA) in which the HPCI system is not available so that the core spray (CS) system or LPCI system can inject water into the reactor vessel (reference FSAR 7.3.1.1a.1.4). ADS monitors the discharge pressures of the four LPCI pumps and the four CS pumps. Each ADS trip system receives a discharge pressure permissive either from: (a) both CS pumps in the division; or (b) from either of the two LPCI pumps in the associated division. The signals are used as a permissive for ADS actuation, indicating that there is a source of core coolant available once the ADS has depressurized the vessel. With operation of both CS pumps or one of the two LPCI pumps in a division, sufficient flow is available to permit automatic depressurization.

As described in the Bases for TS 3.3.5.1, the ADS pressure permissive logic for CS has one pressure channel for each pump. Since it takes both CS pumps associated with that ADS Division (2-of-2 logic) to provide the permissive the "Required Number of Channels Per Function" is specified as "2." Each LPCI pump has two pressure channels arranged in a 2-of-2 logic (for each pump) to provide the ADS permissive. As such, the current requirements stating "2" required channels is interpreted as "2 per pump." With two pumps supporting each Division, as described in the Bases, this presentation requires all "4" channels to be operable. These Bases and the supporting intent are based on the Amendment request associated with conversion to the Improved Standard Technical Specifications, Amendments 178 (Unit 1) and 151 (Unit 2) (Reference 1). Reference Attachment 2 for current SSES Bases with added highlighting for these discussions.

On January 31, 1985, PPL requested an Amendment (Reference 2) that was the basis for approval of TS Amendments 44 (Unit 1) and 11 (Unit 2) (Reference 3). These Amendments provided the requirement for the minimum required channels per trip system in Table 3.3.3-1 for the ADS-LPCI pressure permissive as "2"; and included a footnote allowance to have either RHR pump satisfy the requirement. The Amendment 44 (Unit 1) and 11 (Unit 2) approved requirements also allowed for two Core Spray (CS) pump discharge pressure channels to satisfy the required ADS logic channels.

As such, the Amendments 44 and 11 requirements stating "2" required channels were interpreted for CS as "2 per loop" (one for each pump in that loop supporting one Division of ADS). For RHR, the interpretation was "2 per pump" with two pumps supporting each Division. Footnotes provided with this Amendment allowed for only 1-CS or 1-RHR pump to meet the minimum requirements.

In 1998, Amendments 178 (Unit 1) and 151 (Unit 2) (Reference 1) approved a more restrictive operability requirement by requiring all channels to be operable (reference Discussion of Change "M.2" for Section 3.3.5.1). The ITS Table 3.3.5.1-1 required

number of ADS-LPCI pressure permissive channels continued to reflect “2” for each Trip System. However, the Bases and documentation associated with the ITS Conversion clearly relates the intent to require both the channels for both LPCI pumps for each ADS trip system, which is all four channels in each Trip System.

4.0 TECHNICAL ANALYSIS

The proposed editorial change revises SSES TS Unit 1 and Unit 2 TS 3.3.5.1, “Emergency Core Cooling System (ECCS) Instrumentation.” Specifically Table 3.3.5.1-1, Functions 4.f and 5.f, “Low Pressure Coolant Injection Pump Discharge Pressure – High,” for ADS trip system A and B. The “Required Channels Per Function” is revised from “2” to “4.” For each ADS trip system the LPCI Function is applied to each LPCI pump. Therefore, to satisfy the operability requirements, each LPCI pump must have the “2” discharge pressure permissive channels associated with that trip system operable. As such, the requirement stating “2” required channels is interpreted as “2 per pump” with two pumps supporting each trip system, for a total of four channels required for each trip system.

Consistent with the typical definition of channel (e.g., each discharge pressure sensor is part of a unique “channel”), this change will more clearly present the requirement; minimizing the potential for misinterpretation and operator error in implementation of the requirements. The TS Actions for inoperable channels apply consistently to any number of inoperable channels and are not impacted by this change in presentation. Since there is no change in the actual channels required operable, this is an editorial change only.

Based on the evaluation of the proposed change as an editorial presentation preference to enhance clarity of requirements: (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 REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

PPL Susquehanna, LLC (PPL) 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 of occurrence or consequences of an accident previously evaluated?

Response: No.

The Technical Specification required number of protection channels is not an initiator to any accident sequence analyzed in the Final Safety Analysis Report (FSAR). As discussed in this request, the change is editorial and involves no change in the number of ADS supporting protection channels required by the Susquehanna Steam and Electric Station (SSES) Technical Specifications (TS). The change does not have any effect on the initiator of any accident sequence analyzed in the Final Safety Analysis Report (FSAR) and does not affect any assumptions associated with the mitigation of accident or transient events. The change does not involve any physical change to structures, systems, or components (SSCs) and does not alter the method of operation or control of SSCs. The current assumptions in the SSES FSAR safety analysis regarding accident initiators and mitigation of accidents are unaffected by these changes. No additional failure modes or mechanisms are being introduced and the likelihood of previously analyzed failures remains unchanged.

Operation in accordance with the proposed Technical Specification (TS) continues to ensure that the plant response to analyzed accidents remains capable of performing as described in the FSAR. Therefore, the mitigative functions supported by the system continue to provide the protection assumed by the analysis.

Therefore, this 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 does not involve a physical alteration of the plant. No new equipment is being introduced, and installed equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change does not alter the manner in which equipment operation is initiated, nor are the function demands on credited equipment be changed. No alterations in the procedures that ensure the plant remains within analyzed limits are being proposed, and no changes are being made to the procedures relied upon to respond to an off-normal event as described in the FSAR. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis.

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

Response: No.

The margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The change is editorial and involves no technical changes to the Susquehanna Steam and Electric Station (SSES) Technical Specifications (TS). Therefore the plant response to analyzed events continues to provide the margin of safety assumed by the analysis.

5.2 Applicable Regulatory Requirements/Criteria

SSES FSAR Sections 3.1 and 3.13 provide detailed discussion of SSES compliance with the applicable regulatory requirements and guidance. SSES FSAR Section 7.3.1.1a.1.4 describes the purpose and function of the ADS. The proposed TS amendment:

- (a) Does not alter the design or function of any system;
- (b) Does not result in any change in the qualifications of any component; and
- (c) Does not result in the reclassification of any component's status in the areas of shared, safety related, independent, redundant, and physically or electrically separated.

Additionally, PPL has considered the regulatory criteria of 10 CFR 50.36(c)(2) ("Limiting Conditions for Operation") and the 10 CFR 50.36(c)(2)(ii) Criteria for inclusion in TS. As a "Criterion 2" process variable that is an initial assumption of accident analyses, this change remains consistent with these requirements.

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.

6.0 ENVIRONMENTAL CONSIDERATIONS

10 CFR 51.22(c)(9) identifies certain licensing and regulatory actions, which are eligible for categorical exclusion from the requirement to perform an environmental assessment. A proposed amendment to an operating license for a facility does not require an environmental assessment if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant hazards consideration; (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite; or (3) result in a significant increase in individual or cumulative occupational radiation exposure. PPL Susquehanna, LLC has evaluated the proposed change and has determined that the proposed change meets the eligibility criteria for

categorical exclusion set forth in 10 CFR 51.22(c)(9). Accordingly, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with issuance of the amendment. The basis for this determination, using the above criteria, follows:

Basis

As demonstrated in the No Significant Hazards Consideration Evaluation, the proposed amendment does not involve a significant hazards consideration.

There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite. The proposed change does not involve any physical alteration of the plant (no new or different type of equipment will be installed) or change in methods governing normal plant operation.

There is no significant increase in individual or cumulative occupational radiation exposure. The proposed change does not involve any physical alteration of the plant (no new or different type of equipment will be installed) or change in methods governing normal plant operation.

7.0 REFERENCES

1. Letter, V. Nerses (NRC) to R. G. Byram (PP&L), "Susquehanna Steam Electric Station, Units 1 and 2 (TAC NOS. M96327 and M96328)" (Amendment Nos. 178 and 151), dated July 30, 1998.
2. Letter PLA-2401, N. W. Curtis (PP&L) to USNRC, "Susquehanna Steam Electric Station Proposed Amendments 61 to NPF-14 and 15 to NPF-22," dated January 31, 1985.
3. Letter, W. R. Butler (NRC) to N. W. Curtis (PP&L), "Amendment Nos. 44 and 11 to Facility Operating License NPF-22, Susquehanna Steam Electric Station, Units 1 and 2," dated May 15, 1985.

ATTACHMENT 1 to PLA-5722

Proposed Technical Specification Change (Mark-Up)

Table 3.3.5.1-1 (page 5 of 6)
 Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
4. ADS Trip System A (continued)					
f. Low Pressure Coolant Injection Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 115 psig and ≤ 135 psig
g. Automatic Depressurization System Drywell Pressure Bypass Actuation Timer	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 450 sec
h. Manual Initiation	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.5	NA
5. ADS Trip System B					
a. Reactor Vessel Water Level—Low Low Low, Level 1	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches
b. Drywell Pressure—High	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Automatic Depressurization System Initiation Timer	1, 2 ^(e) , 3 ^(e)	1	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 114 sec
d. Reactor Vessel Water Level—Low, Level 3 (Confirmatory)	1, 2 ^(e) , 3 ^(e)	1	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ 11.5 inches
e. Core Spray Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 125 psig and ≤ 165 psig

(continued)

(e) With reactor steam dome pressure > 150 psig.

Table 3.3.5.1-1 (page 6 of 6)
 Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
5. ADS Trip System B (continued)					
f. Low Pressure Coolant Injection Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	2, 3, 4	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 115 psig and ≤ 135 psig
g. Automatic Depressurization System Drywell Pressure Bypass Actuation Timer	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 450 sec
h. Manual Initiation	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.5	NA

(e) With reactor steam dome pressure > 150 psig.

Table 3.3.5.1-1 (page 4 of 5)
 Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
4. Automatic Depressurization System (ADS) Trip System A					
a. Reactor Vessel Water Level—Low Low, Level 1	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches
b. Drywell Pressure—High	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Automatic Depressurization System Initiation Timer	1, 2 ^(e) , 3 ^(e)	1	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 114 seconds
d. Reactor Vessel Water Level—Low, Level 3 (Confirmatory)	1, 2 ^(e) , 3 ^(e)	1	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ 11.5 inches
e. Core Spray Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 125 psig and ≤ 165 psig
f. Low Pressure Coolant Injection Pump Discharge Pressure – High	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 115 psig and ≤ 135 psig
g. Automatic Depressurization System Drywell Pressure Bypass Actuation Timer	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 450 seconds
h. Manual Initiation	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.5	NA

(continued)

(e) With reactor steam dome pressure > 150 psig.

Table 3.3.5.1-1 (page 4 of 5)
 Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
4. Automatic Depressurization System (ADS) Trip System A					
a. Reactor Vessel Water Level—Low Low, Level 1	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches
b. Drywell Pressure—High	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Automatic Depressurization System Initiation Timer	1, 2 ^(e) , 3 ^(e)	1	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 114 seconds
d. Reactor Vessel Water Level—Low, Level 3 (Confirmatory)	1, 2 ^(e) , 3 ^(e)	1	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ 11.5 inches
e. Core Spray Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 125 psig and ≤ 165 psig
f. Low Pressure Coolant Injection Pump Discharge Pressure – High	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 115 psig and ≤ 135 psig
g. Automatic Depressurization System Drywell Pressure Bypass Actuation Timer	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 450 seconds
h. Manual Initiation	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.5	NA

(continued)

(e) With reactor steam dome pressure > 150 psig.

ATTACHMENT 2 to PLA-5722

Proposed Technical Specification Pages (Retyped)

Table 3.3.5.1-1 (page 5 of 6)
 Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
4. ADS Trip System A (continued)					
f. Low Pressure Coolant Injection Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	4	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 115 psig and ≤ 135 psig
g. Automatic Depressurization System Drywell Pressure Bypass Actuation Timer	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 450 sec
h. Manual Initiation	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.5	NA
5. ADS Trip System B					
a. Reactor Vessel Water Level—Low Low Low, Level 1	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches
b. Drywell Pressure—High	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Automatic Depressurization System Initiation Timer	1, 2 ^(e) , 3 ^(e)	1	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 114 sec
d. Reactor Vessel Water Level—Low, Level 3 (Confirmatory)	1, 2 ^(e) , 3 ^(e)	1	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ 11.5 inches
e. Core Spray Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 125 psig and ≤ 165 psig

(continued)

(e) With reactor steam dome pressure > 150 psig.

Table 3.3.5.1-1 (page 6 of 6)
 Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
5. ADS Trip System B (continued)					
f. Low Pressure Coolant Injection Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	4	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 115 psig and ≤ 135 psig
g. Automatic Depressurization System Drywell Pressure Bypass Actuation Timer	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 450 sec
h. Manual Initiation	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.5	NA

(e) With reactor steam dome pressure > 150 psig.

Table 3.3.5.1-1 (page 4 of 5)
Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
4. Automatic Depressurization System (ADS) Trip System A					
a. Reactor Vessel Water Level—Low Low Low, Level 1	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches
b. Drywell Pressure—High	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Automatic Depressurization System Initiation Timer	1, 2 ^(e) , 3 ^(e)	1	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 114 seconds
d. Reactor Vessel Water Level—Low, Level 3 (Confirmatory)	1, 2 ^(e) , 3 ^(e)	1	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ 11.5 inches
e. Core Spray Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 125 psig and ≤ 165 psig
f. Low Pressure Coolant Injection Pump Discharge Pressure – High	1, 2 ^(e) , 3 ^(e)	4	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 115 psig and ≤ 135 psig
g. Automatic Depressurization System Drywell Pressure Bypass Actuation Timer	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 450 seconds
h. Manual Initiation	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.5	NA

(continued)

(e) With reactor steam dome pressure > 150 psig.

Table 3.3.5.1-1 (page 5 of 5)
 Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
5. ADS Trip System B					
a. Reactor Vessel Water Level - Low Low, Level 1	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches
b. Drywell Pressure—High	1, 2 ^(e) , 3 ^(e)	2	E	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Automatic Depressurization System Initiation Timer	1, 2 ^(e) , 3 ^(e)	1	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 114 sec
d. Reactor Vessel Water Level—Low, Level 3 (Confirmatory)	1, 2 ^(e) , 3 ^(e)	1	E	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ 11.5 inches
e. Core Spray Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 125 psig and ≤ 165 psig
f. Low Pressure Coolant Injection Pump Discharge Pressure—High	1, 2 ^(e) , 3 ^(e)	4	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 115 psig and ≤ 135 psig
g. Automatic Depressurization System Drywell Pressure Bypass Actuation Timer	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 450 seconds
h. Manual Initiation	1, 2 ^(e) , 3 ^(e)	2	F	SR 3.3.5.1.5	NA

(e) With reactor steam dome pressure > 150 psig.