

10 CFR 50.90

RS-06-003

March 16, 2006

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

LaSalle County Station, Units 1 and 2  
Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

Subject: Request for a License Amendment to Revise Allowable Values for Reactor Core Isolation Cooling Temperature Based Leak Detection.

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) requests the following amendment to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18 for LaSalle County Station (LSCS) Units 1 and 2. Specifically, the proposed changes will modify TS 3.3.6.1, "Primary Containment Isolation Instrumentation," Table 3.3.6.1-1 to revise the Allowable Values for Reactor Core Isolation Cooling (RCIC) temperature based leak detection.

The proposed change is a result of revising the setpoint calculation for the subject temperature instruments based on the current reactor coolant leak detection analytical limit.

The attached amendment request is subdivided as shown below.

Attachment 1 provides a description of the proposed change.

Attachment 2 includes the marked-up TS page with the proposed change indicated.

Attachment 3 includes the associated typed TS page with the proposed change incorporated.

EGC requests approval of the proposed change by January 30, 2007, with the amendment being implemented within 60 days of issuance.

The proposed changes have been reviewed by the LSCS Plant Operations Review Committee and approved by the Nuclear Safety Review Board in accordance with the requirements of the EGC Quality Assurance Program.

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In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," EGC is notifying the State of Illinois of this application for changes to the TS by transmitting a copy of this letter and its attachments to the designated State Official.

Should you have any questions concerning this letter, please contact Ms. Alison Mackellar at (630) 657-2817.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 16<sup>th</sup> day of March 2006.

Respectfully,

A handwritten signature in black ink that reads "Keith R. Jury". The signature is written in a cursive, flowing style.

Keith R. Jury  
Director, Licensing and Regulatory Affairs

- Attachment 1: Evaluation of Proposed Change
- Attachment 2: Mark-up of Proposed Technical Specifications Page Change
- Attachment 3: Typed Page for Technical Specification Change

**ATTACHMENT 1**  
**Evaluation of Proposed Change**

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**ATTACHMENT 1**  
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**1.0 DESCRIPTION**

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) requests the following amendment to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18 for LaSalle County Station (LSCS) Units 1 and 2. Specifically, the proposed changes will modify TS 3.3.6.1, "Primary Containment Isolation Instrumentation," Table 3.3.6.1-1; to revise the Allowable Values for Reactor Core Isolation Cooling (RCIC) system temperature based leak detection.

The proposed change is a result of revising the setpoint calculation for the subject temperature instruments based on the current leak detection analytical limit. The temperature limits correspond to a 25 gpm leak as determined by LSCS calculations. The proposed changes will revise TS Table 3.3.6.1-1 Allowable Values for the following four RCIC system isolation functions.

- Item 3.e. RCIC Equipment Room Temperature – High
- Item 3.f. RCIC Equipment Room Differential Temperature – High
- Item 3.g. RCIC Steam Line Tunnel Temperature – High
- Item 3.h. RCIC Steam Line Tunnel Differential Temperature – High

We request approval of the proposed license amendment by January 30, 2007. Once approved, the amendment will be implemented within 60 days.

**2.0 PROPOSED CHANGES**

The proposed change will revise TS Table 3.3.6.1-1 Allowable Values for the leak based instrument functions associated with RCIC Isolation.

The current Allowable Values for these functions are:

- ≤ 291.0°F for RCIC Equipment Room Temperature – High
- ≤ 189.0°F for RCIC Equipment Room Differential Temperature – High
- ≤ 277.0°F for the RCIC Steam Line Tunnel Temperature – High
- ≤ 155.0°F for the RCIC Steam Line Tunnel Differential Temperature – High

The proposed change revises the Allowable Values to the following:

- ≤ 297.0°F for RCIC Equipment Room Temperature – High
- ≤ 188.0°F for RCIC Equipment Room Differential Temperature – High
- ≤ 267.0°F for the RCIC Steam Line Tunnel Temperature – High
- ≤ 163.0°F for the RCIC Steam Line Tunnel Differential Temperature – High

**3.0 BACKGROUND**

The RCIC system is considered a safe shutdown system rather than an emergency core cooling system. It is designed to automatically perform its function during a total loss of AC power. RCIC instrumentation and controls are designed to meet the requirements of control systems and standards as stated in the LSCS Updated Final Safety Analysis Report (UFSAR). The RCIC leak detection isolation functions are not credited in any UFSAR transient or accident

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analysis, since the bounding analyses are performed for large breaks such as reactor recirculation line or main steam line breaks.

The RCIC system automatically initiates to ensure adequate core cooling in the event that the reactor is isolated from the main condenser during power operation with a loss of main feedwater flow. The RCIC system is designed to add water inventory to the reactor vessel thus assuring continuity of core cooling. Reactor vessel water level is maintained or supplemented by the RCIC system during the following conditions:

- a. reactor vessel isolated and maintained in the hot standby condition;
- b. reactor vessel isolated coincident with a loss of normal coolant flow from the reactor feedwater system; or
- c. plant shutdown where of a loss of normal feedwater system is experienced before the reactor is depressurized to where the reactor shutdown cooling mode of the residual heat removal system can be placed in operation.

The RCIC system provides relatively cool water to the reactor vessel either from the Cycled Condensate Storage Tank or from the suppression pool and uses steam from the reactor to drive the RCIC turbine driven pump. The water supply to the reactor vessel and the steam supply to the turbine both assist in decay heat removal from the core. The water is injected into the vessel through the head spray nozzle of the reactor.

The RCIC temperature leak detection system at LSCS uses area ambient or differential temperature increases to detect small primary coolant boundary leaks in the Main Steam Line Tunnel and in various rooms of the RCIC system and the Reactor Water Cleanup (RWCU) system.

Inputs to the RCIC system isolation function are listed in Table 3.3.6.1-1, "Primary Containment Isolation Instrumentation," and include the following:

RCIC Equipment Room Temperature – High  
RCIC Equipment Room Differential Temperature – High  
RCIC Steam Line Tunnel Temperature – High  
RCIC Steam Line Tunnel Differential Temperature – High

These functions are inputs to the logic that initiates an isolation of the Group 8 (i.e., RCIC steam line) isolation valves at a leak rate equivalent to 25 gpm in the RCIC steam pipe. This isolation function is independent of the RCIC steam line flow rate, RCIC steam line pressure, or Drywell pressure isolation functions.

While responding to a LSCS Corrective Action Program action item, the existing reactor coolant leak detection calculation (L-001324, Revision 5A) and the RCIC leak detection setpoint calculation (NED-I-EIC-0213, Revision 1G) were reviewed in May 2005. During this review it was determined that the RCIC leak detection setpoint calculation used design inputs from Revision 0 of the reactor coolant leak detection calculation, dated October 17, 1997, rather than the current Revision 5A dated March 2003. The Allowable Values in LSCS TS Table 3.3.6.1-1 are derived from the RCIC leak detection setpoint calculation, and were therefore no longer supported by the current calculation, (i.e., the Allowable Values were not prepared using design

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inputs from the current (i.e., Revision 5A) reactor coolant leak detection calculation). It should be noted that Revision 5 of the reactor coolant leak detection calculation, dated December, 1998, first modified the affected RCIC Allowable Values in LSCS Table 3.3.6.1-1; however, the need for a TS revision was not identified at that time.

All the affected instruments are currently meeting the setpoint requirement in their respective LSCS instrument surveillance procedure. A review of completed surveillances for the last three years for the RCIC Equipment Room and the RCIC Steam Line Tunnel instrumentation was performed. The as-found data for all TS RCIC system isolation instrumentation indicate that the existing Allowable Values were never challenged.

An extent of condition review was performed on all instrument setpoint calculations listed in the LSCS Technical Requirements Manual Appendix D to ensure that the outdated calculation concern was limited to the RCIC leak detection system. All calculation based Allowable Values were reviewed and the setpoint calculations were found to be consistent with the current analytical limits.

NRC Administrative Letter 98-10, "Dispositioning of Technical Specifications that are insufficient to assure Plant Safety," addresses the NRC's expectations regarding correction of facility TS when they are found to contain nonconservative values. In the case of a deficient TS, these expectations include the evaluation of compensatory measures, such as administrative controls implemented in accordance with 10 CFR 50.59, "Changes, tests, and experiments," and prompt actions to correct the TS.

Substantial margin remains between the current field setting of the RCIC system leak detection instrumentation setpoints and the calculated values for both the Limiting Trip Setpoints and the TS Allowable Values. In addition, the operational history of the equipment indicates that normal instrument variability does not result in a challenge to the Allowable Value. Based on this information, no compensatory measures were found necessary beyond this request for a correction to the subject TS Allowable Values.

The proposed changes will revise TS Table 3.3.6.1-1 Allowable Values for four RCIC system isolation functions as noted below.

- Increase the Allowable Value for Function 3.e., "RCIC Equipment Room Temperature – High," from  $\leq 291.0^{\circ}\text{F}$  to  $\leq 297.0^{\circ}\text{F}$
- Decrease the Allowable Value for Function 3.f., "RCIC Equipment Room Differential Temperature – High," from  $\leq 189.0^{\circ}\text{F}$  to  $\leq 188.0^{\circ}\text{F}$
- Decrease the Allowable Value for Function 3.g., "RCIC Steam Line Tunnel Temperature – High," from  $\leq 277.0^{\circ}\text{F}$  to  $\leq 267.0^{\circ}\text{F}$
- Increase the Allowable Value for Function 3.h., "RCIC Steam Line Tunnel Differential Temperature – High," from  $\leq 155.0^{\circ}\text{F}$  to  $\leq 163.0^{\circ}\text{F}$

The proposed revision to the Allowable Values does not change any of the RCIC system leak detection isolation setpoints.

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#### **4.0 TECHNICAL ANALYSIS**

The leak detection system at LSCS uses area ambient or differential temperature increases to detect small primary coolant boundary leaks in the Main Steam Line Tunnel and in various rooms of the RCIC System and the RWCU System.

The current LSCS TS Allowable Values for the RCIC temperature based leak detection were based on analytical limits determined in calculations that identified the plant areas with reactor coolant piping outside of containment that required area ambient and differential temperature monitoring leak detection and determined the theoretical area heat rise for various design pipe leak rates. The current Allowable Values contained in TS Table 3.3.6.1-1 are based on calculations that used design inputs from Revision 0 of the reactor coolant leak detection calculation.

The proposed change is based on revised analytical limits for a leak rate equivalent to 25 gpm determined by the most current revisions to the heat rise calculations based on the existing reactor coolant leak detection calculation (L-001324, Revision 5A). Setpoint calculations have been performed to determine the nominal trip setpoints and Allowable Values for the instrumentation associated with the leak detection function based on the revised analytical limits determined by the latest heat rise calculations.

There is no change to the methodology or instrument error values approved for use in Amendments 147 and 133 to the LSCS TS issued on March 30, 2001. These amendments converted the previous TS for LSCS to Improved Technical Specifications (ITS) based on NUREG 1433, "Standard Technical Specifications, General Electric Plants BWR/4," Revision 1, dated April 1995, as documented in Reference 5. The Safety Evaluation for these amendments documents LSCS identification of the Nuclear Engineering Standard NES-EIC-20.04, Revision 1, "Analysis of Instrument Channel Setpoint Error and Instrument Loop Accuracy."

In recent industry communications the NRC has identified a concern with the use of Allowable Values as limits used in TS to satisfy the requirements of 10 CFR 50.36, "Technical Specifications." Limiting safety system settings (LSSS) for nuclear reactors are settings for automatic protective devices related to those variables having significant safety functions. Where a LSSS is specified for a variable on which a safety limit has been placed, the setting must be so chosen that automatic protective action will correct the abnormal situation before a safety limit is exceeded. The RCIC leak detection/isolation function is not protecting a safety limit and therefore does not meet the definition of a LSSS.

As required by GL 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," continuing evaluation processes are in place to evaluate drift data for instruments evaluated in the 24-month fuel cycle extension request so that any variation in the assumed values of drift will be identified and incorporated in the LSSS calculations. The RCIC system isolation functions are not considered to be LSSS, however, these parameters are also required to meet setpoint standards in accordance with NES-EIC-20.04, as documented in Reference 5. To address concerns of verification of functionality, RCIC system isolation instrumentation as-left values are verified within the required tolerance after the completion of all TS calibration surveillances.

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**5.0 REGULATORY ANALYSIS**

**5.1 No Significant Hazards Consideration**

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) requests the following amendment to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18 for LaSalle County Station (LSCS) Units 1 and 2. Specifically, the proposed changes will modify TS 3.3.6.1, "Primary Containment Isolation Instrumentation," Table 3.3.6.1-1; to revise the Allowable Values for Reactor Core Isolation Cooling (RCIC) system temperature based leak detection.

The proposed change is a result of revising the setpoint calculation for the subject temperature instruments based on the current reactor coolant leak detection calculation analytical limit. The temperature limits correspond to a 25 gpm leak as determined by LSCS calculations. The proposed changes will revise TS Table 3.3.6.1-1 Allowable Values for the following four RCIC system isolation functions.

- Item 3.e. RCIC Equipment Room Temperature – High
- Item 3.f. RCIC Equipment Room Differential Temperature – High
- Item 3.g. RCIC Steam Line Tunnel Temperature – High
- Item 3.h. RCIC Steam Line Tunnel Differential Temperature – High

According to 10 CFR 50.92, "Issuance of amendment," paragraph (c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

In support of this determination, an evaluation of each of the three criteria set forth in 10 CFR 50.92 is provided below regarding the proposed license amendment.

**1. The proposed TS change does not involve a significant increase in the probability or consequences of an accident previously evaluated.**

The proposed change is a result of revising the setpoint calculation for the subject temperature instruments based on the current reactor coolant leak detection calculation analytical limit. The proposed changes will revise TS Table 3.3.6.1-1 Allowable Values for the following four RCIC system isolation functions as noted below.

- Increase the Allowable Value for Function 3.e., "RCIC Equipment Room Temperature – High," from  $\leq 291.0^{\circ}\text{F}$  to  $\leq 297.0^{\circ}\text{F}$



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- Decrease the Allowable Value for Function 3.f., "RCIC Equipment Room Differential Temperature – High," from  $\leq 189.0^{\circ}\text{F}$  to  $\leq 188.0^{\circ}\text{F}$
- Decrease the Allowable Value for Function 3.g., "RCIC Steam Line Tunnel Temperature – High," from  $\leq 277.0^{\circ}\text{F}$  to  $\leq 267.0^{\circ}\text{F}$
- Increase the Allowable Value for Function 3.h., "RCIC Steam Line Tunnel Differential Temperature – High," from  $\leq 155.0^{\circ}\text{F}$  to  $\leq 163.0^{\circ}\text{F}$

The function of the instrumentation listed on TS Table 3.3.6.1-1, in combination with other accident mitigation features, is to limit fission product release during and following postulated Design Basis Accidents to within allowable limits. The Allowable Values specified in TS Table 3.3.6.1-1 provide assurance that the instrumentation will perform as designed.

The Allowable Values for RCIC system isolation are not a precursor to any accident previously evaluated. Accidents are assumed to be initiated by equipment failure. The proposed change does not alter the initiation conditions or operational parameters for the system. There is no increase in the failure probability of the system. As such, the probability of occurrence for a previously evaluated accident is not increased.

The Allowable Values specified in Table 3.3.6.1-1 provide assurance that the RCIC system will perform as designed. The proposed revision to the Allowable Values does not change any of the RCIC system leak detection isolation actuation setpoints. Thus, the radiological consequences of any accident previously evaluated are not increased.

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

**2. The proposed TS change does not create the possibility of a new or different kind of accident from any accident previously evaluated.**

The proposed change does not affect the control parameters governing unit operation or the response of plant equipment to transient conditions. The proposed change does not change or introduce any new equipment, modes of system operation or failure mechanisms.

The proposed change is based on revised reactor coolant leak detection calculation analytical limits determined by the most current revision to the heat rise calculation. Setpoint calculations have been performed to determine the nominal trip setpoints and Allowable Values for the instrumentation associated with the leak detection function based on the revised analytical limits determined by the heat rise calculations. The proposed revision to the Allowable Values does not change any of the RCIC system leak detection isolation actuation setpoints.

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

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**3. The proposed TS change does not involve a significant reduction in a margin of safety.**

The proposed change will revise TS Table 3.3.6.1-1 Allowable Values for the instrument functions associated with RCIC Isolation.

The current Allowable Values for these functions are:

- ≤ 291.0°F for RCIC Equipment Room Temperature – High
- ≤ 189.0°F for RCIC Equipment Room Differential Temperature – High
- ≤ 277.0°F for the RCIC Steam Line Tunnel Temperature – High
- ≤ 155.0°F for the RCIC Steam Line Tunnel Differential Temperature – High

The proposed change revises the Allowable Values to the following:

- ≤ 297.0°F for RCIC Equipment Room Temperature – High
- ≤ 188.0°F for RCIC Equipment Room Differential Temperature – High
- ≤ 267.0°F for the RCIC Steam Line Tunnel Temperature – High
- ≤ 163.0°F for the RCIC Steam Line Tunnel Differential Temperature – High

The proposed change is a result of revising the setpoint calculation for the subject temperature instruments based on the current analytical limit. The proposed changes will revise TS Table 3.3.6.1-1 Allowable Values for the subject four RCIC system isolation functions and will provide assurance that the RCIC system will perform as designed. The proposed revision to the Allowable Values does not change any of the RCIC system leak detection isolation actuation setpoints.

Margin of safety is established by the design and qualification of plant equipment, the operation of the plant within analyzed limits, and the point at which protective or mitigative actions are being initiated. The proposed change does not alter these considerations. The proposed allowable values will still ensure that the results of the accident analysis remain valid.

Based on this information, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above evaluation, EGC concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c).

**5.2 Applicable Regulatory Requirements/Criteria**

10 CFR 50.36(c)(1) requires that the plant Technical Specifications will include items in the following categories; safety limits, limiting safety system settings, and limiting control settings. Limiting safety system settings (LSSS) for nuclear reactors are settings for automatic protective devices related to those variables having significant safety functions. Where a LSSS is specified for a variable on which a safety limit has been placed, the setting must be so chosen that automatic protective action will correct the abnormal situation before a safety limit is exceeded. The RCIC leak detection/isolation function is not protecting a safety limit and therefore does not meet the definition of a LSSS.

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10 CFR 50, Appendix A, General Design Criteria (GDC) 54 requires that piping systems penetrating primary containment be provided with leak detection, isolation and containment capabilities having redundancy, reliability and performance capabilities which reflect the importance to safety of isolating systems. The RCIC High Energy Line Break leak detection/isolation equipment monitors temperature and initiates a RCIC system isolation when area ambient temperature reaches a preset limit.

TS Table 3.3.6.1-1 lists primary containment isolation instrumentation that are required to function, in combination with other accident mitigation features, to limit fission product release during and following postulated Design Basis Accidents to within limits.

#### **Impact on Previous Submittals/Precedent**

The NRC is currently reviewing a similar change for the Oyster Creek Generating Station, which was submitted on February 2, 2005, (i.e., Reference 1).

### **6.0 ENVIRONMENTAL EVALUATION**

EGC has evaluated this proposed operating license amendment consistent with the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21, "Criteria for and identification of licensing and regulatory actions requiring environmental assessments." EGC has determined that these proposed changes meet the criteria for a categorical exclusion set forth in paragraph (c)(9) of 10 CFR 51.22, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," and as such, has determined that no irreversible consequences exist in accordance with paragraph (b) of 10 CFR 50.92, "Issuance of amendment." This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50, "Domestic Licensing of Production and Utilization Facilities," which changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, "Standards for Protection Against Radiation," or which changes an inspection or a surveillance requirement, and the amendment meets the following specific criteria:

**(i) The amendment involves no significant hazards consideration.**

As demonstrated in Section 5.1, "No Significant Hazards Consideration," the proposed changes do not involve any significant hazards consideration.

**(ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.**

The proposed change to allowable values associated with the RCIC system isolation function does not result in an increase in power level, does not increase the production nor alter the flow path or method of disposal of radioactive waste or byproducts; thus, there will be no change in the amounts of radiological effluents released offsite.

Based on the above evaluation, the proposed change will not result in a significant change in the types or significant increase in the amounts of any effluent released offsite.

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- (iii) **There is no significant increase in individual or cumulative occupational radiation exposure.**

The proposed change to allowable values associated with the RCIC system isolation function will not result in any changes to the previously analyzed configuration of the facility. There will be no change in the level of controls or methodology used for the processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels in the plant; therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from this change.

**7.0 REFERENCES**

1. Letter from C. N. Swenson, (Exelon Generation Company, LLC), to NRC, "Technical Specification Change Request No. 280 – Reactor Water Clean-Up High Energy Line Break Detection and Isolation," dated February 2, 2005
2. "Ambient and Differential Temperature Design Basis Calculations for Reactor Coolant Leak Detection," L-001324, Revision 5A
3. "Ambient and Differential Temperature Design Basis Calculations for Reactor Coolant Leak Detection," L-001324, Revision 0
4. "RCIC Equipment Area/Pipe Tunnel High Ambient and Differential Temperature Outboard and Inboard Error Analysis," NED-I-EIC-0213, Revision 1G
5. Letter from NRC to O. D. Kingsley, (Exelon Generation Company, LLC), "Issuance of Amendments," dated March 30, 2001

**ATTACHMENT 2**

**Markup of Proposed Technical Specifications Page Change**

**LASALLE COUNTY STATION**

**REVISED TS PAGE**

3.3.6.1-7

Primary Containment Isolation Instrumentation  
3.3.6.1

Table 3.3.6.1-1 (page 2 of 4)  
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. Primary Containment Isolation (continued)					
e. Reactor Vessel Water Level—Low Low Low, Level 1	1,2,3	2	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≥ -137.0 inches
f. Reactor Vessel Water Level—Low, Level 3	1,2,3	2	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≥ 11.0 inches
g. Manual Initiation	1,2,3	1	G	SR 3.3.6.1.5	NA
3. Reactor Core Isolation Cooling (RCIC) System Isolation					
a. RCIC Steam Line Flow—High	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≤ 176.0 inches water
b. RCIC Steam Line Flow—Timer	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≥ 2.6 seconds and ≤ 5.5 seconds
c. RCIC Steam Supply Pressure—Low	1,2,3	2	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≥ 58.2 psig
d. RCIC Turbine Exhaust Diaphragm Pressure—High	1,2,3	2	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 300 inches water
e. RCIC Equipment Room Temperature—High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ <del>291.0°F</del> 297.0°F
f. RCIC Equipment Room Differential Temperature—High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ <del>189.0°F</del> 188.0°F
g. RCIC Steam Line Tunnel Temperature—High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ <del>277.0°F</del> 267.0°F
h. RCIC Steam Line Tunnel Differential Temperature—High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ <del>455.0°F</del> 163.0°F
i. Drywell Pressure—High	1,2,3	2	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 1.77 psig

(continued)

**ATTACHMENT 3**

**Typed Page**

**for**

**Technical Specification Change**

**LASALLE COUNTY STATION**

REVISED TS PAGE

3.3.6.1-7

Primary Containment Isolation Instrumentation  
3.3.6.1

Table 3.3.6.1-1 (page 2 of 4)  
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. Primary Containment Isolation (continued)					
e. Reactor Vessel Water Level—Low Low Low, Level 1	1,2,3	2	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≥ -137.0 inches
f. Reactor Vessel Water Level—Low, Level 3	1,2,3	2	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≥ 11.0 inches
g. Manual Initiation	1,2,3	1	G	SR 3.3.6.1.5	NA
3. Reactor Core Isolation Cooling (RCIC) System Isolation					
a. RCIC Steam Line Flow—High	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≤ 176.0 inches water
b. RCIC Steam Line Flow—Timer	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≥ 2.6 seconds and ≤ 5.5 seconds
c. RCIC Steam Supply Pressure—Low	1,2,3	2	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≥ 58.2 psig
d. RCIC Turbine Exhaust Diaphragm Pressure—High	1,2,3	2	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 300 inches water
e. RCIC Equipment Room Temperature—High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 297.0°F
f. RCIC Equipment Room Differential Temperature—High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 188.0°F
g. RCIC Steam Line Tunnel Temperature—High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 267.0°F
h. RCIC Steam Line Tunnel Differential Temperature—High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 163.0°F
i. Drywell Pressure—High	1,2,3	2	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 1.77 psig
(continued)					