Exelon Nuclear
200 Exelon Way
Kennett Square, PA 19348

www.exeloncorp.com

Exelon Nuclear

10CFR 50.90

February 15, 2002

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Limerick Generating Station, Units 1 and 2
Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352 and 50-353

Subject: License Amendment Request 01-00129
Reactor Water Cleanup System Steam Leak Detection Instrumentation Setpoints

Dear Sir/Madam:

Pursuant to 10CFR50.90 Exelon Generation Company, LLC (Exelon), hereby requests the following amendment to the Technical Specifications (TS), Appendix A of Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2. This proposed License Amendment Request (LAR) will revise the Reactor Water Cleanup System (RWCS) Steam Leak Detection Temperature Isolation Actuation Instrumentation Setpoints contained in Table 3.3.2-2 concerning items 3.b and 3.c for RWCS Area Temperature - High and RWCS Area Ventilation Differential Temperature - High. This information is being submitted under unsworn declaration. Information supporting this License Amendment Request is contained in Attachment 1 to this letter, and the proposed marked up TS pages and final TS pages are contained in Attachments 2 and 3, respectively.

Exelon requests approval of the proposed amendment by August 15, 2002.

Once approved, this amendment shall be implemented within 30 days of issuance.

Additionally, there are no commitments contained within this letter.

A copy of this License Amendment Request, including the reasoned analysis about a no significant hazards consideration, is being provided to the appropriate Pennsylvania State official in accordance with the requirements of 10 CFR 50.91(b)(1).

A001

Rec'd 03/25/02

If you have any questions or require additional information, please contact me at (610) 765- 5664.

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

Respectfully,

Executed on 02-15-02

Michael P. Gallagher
Director, Licensing and Regulatory Affairs
Mid-Atlantic Regional Operating Group

Attachments: 1-Licensee's Evaluation
2-Markup of Technical Specification Pages
3-Camera Ready Technical Specification Pages

cc: H. J. Miller, Administrator, Region I, USNRC
A. L. Burritt, USNRC Senior Resident Inspector, LGS
C. Gratton, Senior Project Manager, USNRC
R. R. Janati, Commonwealth of Pennsylvania

ATTACHMENT 1

LIMERICK GENERATING STATION
UNITS 1 and 2

DOCKET NOS. 50-352
50-353
LICENSE NOS. NPF-39
NPF-85

LICENSE AMENDMENT REQUEST 01-00129

"Reactor Water Cleanup System Steam Leak Detection Instrumentation Setpoints"

ATTACHMENT 1 CONTENTS

1.0 INTRODUCTION

Exelon Generation Company, LLC (Exelon), Licensee under Facility Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2, requests that the Technical Specifications (TS) contained in Appendix A to the Operating Licenses be amended to revise the Reactor Water Cleanup System (RWCS) Steam Leak Detection Temperature Isolation Actuation Instrumentation Setpoints contained in Table 3.3.2-2 concerning items 3.b and 3.c for RWCS Area Temperature - High and RWCS Area Ventilation Differential Temperature - High. The proposed marked up TS pages and final TS pages are contained in Attachments 2 and 3, respectively.

The original analysis of room heat-up due to a steam leak was very conservative with respect to the RWCS pump rooms and, therefore, a large design margin was provided by the isolation setpoints that were chosen for the RWCS pump rooms. This proposed TS amendment uses a portion of that excess margin, while still maintaining significant conservatism. Doing so is beneficial because it will reduce the probability of unnecessary challenges on the facility and will decrease the likelihood of primary coolant chemistry transients due to RWCS shutdowns. Additionally, this TS amendment will decrease the frequency of unnecessary Operator entries into the Secondary Containment Control transient response implementation plan procedures due to high ambient pump room temperatures.

2.0 DESCRIPTION OF THE PROPOSED AMENDMENT

This License Amendment Request (LAR) revises the Reactor Water Cleanup System (RWCS) Steam Leak Detection Temperature Isolation Actuation Instrumentation Setpoints contained in Table 3.3.2-2 concerning items 3.b and 3.c for RWCS Area Temperature - High and RWCS Area Ventilation Differential Temperature - High.

The TS Limiting Condition for Operation 3.3.2 requires that the RWCS isolation actuation instrumentation channels shall be operable with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.2-2.

Excerpt from Table 3.3.2-2, applicable to RWCS, is shown below:

TABLE 3.3.2-2

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

	TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
3.	REACTOR WATER CLEANUP SYSTEM ISOLATION		
a.	RWCS Δ Flow – High	≤ 54.9 gpm	≤ 65.2 gpm
b.	RWCS Area Temperature – High	≤ 142°F or 132°F**	≤ 147°F or 137°F**
c.	RWCS Area Ventilation Δ Temperature – High	≤ 32°F**	≤ 40°F**
d.	SLCS Initiation	N.A.	N.A.
e.	Reactor Vessel Water Level - Low, Low, - Level 2	≥ -38 inches *	≥ -45 inches
f.	Manual Initiation	N.A.	N.A.

* See Bases Figure B 3/4 3-1.

** The low setpoints are for the RWCS Heat Exchanger Rooms; the high setpoints are for the pump rooms.

The following is an itemized summary of the revisions requested in this LAR. This revision will:

- Increase the TRIP SETPOINT VALUE associated with the RWCS Area Temperature – High for the RWCS pump rooms from ≤ 142°F to ≤ 155°F
- Increase the ALLOWABLE VALUE associated with the RWCS Area Temperature – High for the RWCS pump rooms from ≤ 147°F to ≤ 160°F
- Add a new TRIP SETPOINT VALUE associated with the RWCS Area Ventilation Δ Temperature – High for the RWCS pump rooms to state ≤ 52°F or 32°F
- Add a new ALLOWABLE VALUE associated with the RWCS Area Ventilation Δ Temperature – High for the RWCS pump rooms to state ≤ 60°F or 40°F

The proposed LAR modifies Table 3.3.2-2, as applicable to RWCS, as shown below:

TABLE 3.3.2-2

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
3. REACTOR WATER CLEANUP SYSTEM ISOLATION		
a. RWCS Δ Flow – High	≤ 54.9 gpm	≤ 65.2 gpm
b. RWCS Area Temperature – High	≤ 155°F or ≤ 132°F**	≤ 160°F or ≤ 137°F**
c. RWCS Area Ventilation Δ Temperature – High	≤ 52°F or ≤ 32°F**	≤ 60°F or ≤ 40°F**
d. SLCS Initiation	N.A.	N.A.
e. Reactor Vessel Water Level - Low, Low, - Level 2	≥ -38 inches *	≥ -45 inches
f. Manual Initiation	N.A.	N.A.

* See Bases Figure B 3/4 3-1.

** The low setpoints are for the RWCS Heat Exchanger Rooms; the high setpoints are for the pump rooms.

3.0 BACKGROUND

This LAR involves equipment contained within the RWCS, specifically the Steam Leak Detection Subsystem.

As discussed in UFSAR section 5.2.5.2.2.2 leakage in the high temperature process flow of the RWCS external to the primary containment is detected by temperature sensors located within the RWCS equipment compartments. These temperature sensors are connected to temperature indicating switches that initiate an RWCS isolation signal and an alarm in the control room whenever the ambient temperature or the ventilation air differential temperature of an RWCS equipment compartment exceeds a predetermined setting. This prevents excessive loss of reactor coolant and the release of significant amounts of radioactive material from the Reactor Coolant Pressure Boundary (RCPB). The isolation setpoints associated with the above temperature devices are selected to be high enough to avoid spurious isolation, yet low enough to provide timely detection and isolation of a break in the RWCS. The bases for these setpoints are documented in engineering calculations.

The selected setpoints for the RWCS pump compartments are established consistent with the Limerick Improved Instrument Setpoint Control Program and were selected to provide detection of a 25 gpm leak.

The expected time to reach setpoint and isolate is a matter of minutes which limits releases to the pump compartment to well below those associated with other bounding high energy line breaks. The setpoint calculations for the RWCS pump compartments develop a conservative temperature versus time profile, which considers heat transfer from the flashing liquid to the compartment walls, floor and ceiling.

In addition to the temperature detection method above, leakage from the RWCS is also detected by means of a RWCS inlet and outlet flow comparison. If the inlet flow exceeds the outlet flow by at least 54.9 GPM an alarm is actuated in the control room, and after a 45 second time delay, the RWCS is automatically isolated.

The heat loads, as originally predicted in the system design calculations, are very conservative for the RWCS Pump rooms because of the physical room size difference between the pump rooms and the heat exchanger rooms. The original analysis of room heat-up due to a 25 GPM leak was done for the larger RWCS regenerative heat exchanger rooms (bounding case for smaller pump rooms). The pump rooms are approximately one third of the size of the heat exchanger rooms. Therefore, a very large design margin is provided by the isolation setpoints that were chosen for the RWCS pump rooms. This LAR uses a portion of that excess margin, while still maintaining significant conservatism. Doing so is beneficial because it will reduce the probability of unnecessary challenges on the Primary Containment and Reactor Vessel Isolation Control System (PCRVICS), the RWCS and RWCS Primary Containment Isolation Valves (PCIVs), and will decrease the likelihood of primary coolant chemistry transients due to RWCS shutdowns. Additionally, this LAR will decrease the frequency of unnecessary Operator entries into the Secondary Containment Control transient response implementation plan procedures due to high ambient pump room temperatures. These benefits far out weigh the reduction in design margin associated with increasing the isolation setpoints.

This isolation function is further challenged during the spring and fall months, when plant heating steam is not available. When outside air temperatures cool, the cooler outside air reduces the room inlet temperature quickly but the bulk heat in the room causes the ventilation outlet temperature to be reduced more slowly. This results in a higher differential temperature because of the cooler outside air rather than a higher differential temperature resulting from a steam leak in the room.

Therefore, the TS for Reactor Water Cleanup System (RWCS) Steam Leak Detection Temperature Isolation Actuation Instrumentation Setpoints contained in Table 3.3.2-2 concerning items 3.b and 3.c for RWCS Area Temperature - High and RWCS Area Ventilation Differential Temperature - High requires revision to place the plant in a configuration more properly suited to the spring and fall (plant heating steam off) operation of the HVAC System.

4.0 REGULATORY REQUIREMENTS AND GUIDANCE

- General Design Criterion 1 as it relates to the design of the RWCS and components to standards commensurate with the importance of its safety function.

- General Design Criteria 2 as it relates to the capability of the systems to maintain and perform their safety functions following an earthquake. Acceptance is based on meeting the guidelines of Regulatory Guide 1.29, positions C-1 and C-2.

- General Design Criterion 14 as it relates to assuring the reactor coolant pressure boundary integrity.

- General Design Criteria 16 as it relates to a system, in concert with the reactor containment, being provided to establish an essentially leak tight barrier against the uncontrolled release of radioactivity to the environment.

- General Design Criteria 30 as it relates to the detection, identification, and monitoring of reactor coolant leakage. Acceptance is based on meeting the guidelines of Regulatory Guide 1.45, positions C-1 and C-9.

- General Design Criterion 60 as it relates to the capability of the RWCS to control the release of radioactive effluents to the environment.

- General Design Criterion 61 as it relates to designing the RWCS with appropriate confinement.

5.0 TECHNICAL ANALYSIS

The PCRVICS includes the instrument channels, trip logics, and actuation circuits that activate valve closing mechanisms associated with the valves that, when closed, effect isolation of the primary containment or reactor vessel or both. The purpose of the system is to prevent the gross release of radioactive materials to the environment from the fuel or a break in the RCPB. The PCRVICS automatically isolates the appropriate pipelines that penetrate the primary containment whenever monitored variables exceed pre-selected setpoints. All other pipelines that penetrate primary containment are manually isolated. The power generation objective of this system is to prevent spurious closure of isolation valves as a result of a single failure. A list of valves closed by PCRVICS is provided in UFSAR Table 6.2-17. These valves constitute the Primary Containment Isolation Function.

PCRVICS also provides initiation to the following secondary containment systems:

a. Standby Gas Treatment System (SGTS as described in UFSAR Section 7.3.1.1.7)

b. Reactor Enclosure Isolation System (REIS and HVAC support system as described in UFSAR Section 7.3.1.1.9)

The systems or parts of systems that contain water or steam coming from the reactor vessel or supply water to the reactor vessel, and which are in direct communication with the reactor vessel, are typically provided with leakage detection systems. Outside the primary containment, the piping within each system monitored for leakage is in compartments or rooms separate from other systems wherever feasible, so that leakage may be detected by sump pump monitoring outside of containment, ambient and differential area temperature indications, high process flow, high process differential flow, level alarms, or area radiation indication.

This LAR does not involve any physical changes (modification) to the plant equipment, which could potentially cause an increase in the operating temperature in the system. This LAR provides the ability for the system to be more tolerant to varying plant and ambient conditions without concern of impacting power generation. The revised settings will still provide the design basis function to detect and isolate a 25 GPM steam leak as required by the original General Electric Design Specification. This 25 GPM leak value was validated by the NRC in the Engineering Evaluation Report AEOD/E075 on page 8 of the report under the heading "Automatic Isolation Capability". The Standard Review Plan sections 5.2.5, 5.4.8, 7.1, 7.3, and 7.6 Acceptance Criteria have no specific performance requirements for the leak detection system settings.

The following summarizes the temperature parameter design limits as discussed in this LAR and utilized in the instrument setpoint calculation:

Calculated RWCS Area Temperature – High :	$\leq$ 165 °F (Pump Rooms Only)
Calculated RWCS Area Ventilation Δ Temperature – High :	$\leq$ 65 °F (Pump Rooms Only)

The LGS UFSAR Section 5.2.5.2.2.2 discusses the RWCS Leak Detection System. The RWCS Leak Detection System (RWCS-LDS) monitors leakage in the high temperature process flow of the RWCS external to the primary containment. These Area High and Area High Differential temperatures are detected by temperature sensors located within the RWCS equipment compartments. These functions are safety-related.

The LGS UFSAR Section 7.6.1.3.3.4 discusses the RWCS-LDS Instrumentation and Controls. The purpose of this part of the leak detection system is to monitor the RWCS components and isolate the system should a leak of sufficient magnitude occur.

The RWCS-LDS consists of the following two subsystems:

a. RWCS high differential flow (Leakage monitoring by the flow comparison of RWCS water inlet and outlet flow rate)

b. RWCS area high temperature and differential temperature

UFSAR Section 3.11 discusses the environmental design of electrical equipment. All safety-related equipment must be capable of performing its safety function and/or remaining in a safe mode under all conditions postulated to occur during its installed life.

This LAR will not impact the required periodic testing of any Structures, Systems, and Components (SSC) associated with the RWCS.

The primary containment structures, transient and accident analysis, piping, supports, penetrations, systems, electrical equipment, room heat loading, coatings, and other plant interfaces are not impacted by this LAR, and all SSC will continue to be capable of performing their safety functions. Therefore, this LAR can be implemented with no adverse impact on safety.

The increase in setpoints for the RWCS pump room for high temperature and high differential temperature will increase the expected time from the initiation of a 25 gpm leak until the isolation setpoint is reached. However, the time to reach setpoint is still well below the time to reach setpoint for other plant areas that have steam leak detection isolation requirements. The expected release of inventory remains several orders of magnitude lower than the releases from the design basis bounding event, which is the main steam line break outside containment. Changing the setpoints for the RWCS pump room also does not have any impact on the design parameters used for evaluation of the RWCS motor operated isolation valves as required by Generic Letter 89-10.

Based on engineering calculations, it has been determined that changing the starting point for RWCS Pump Room high ambient temperature and high differential temperature isolation setpoints will allow the system to still provide its safety function and also be more tolerant of plant operating conditions. This LAR will not compromise the ability of Safety Related systems to perform their design functions.

6.0 REGULATORY ANALYSIS

- GDC 1. The proposed change does not impact RWCS design or component standards.

- GDC 2. The proposed change only affects the isolation actuation instrumentation setpoints and does not impact the physical installation of any SSC in the plant.

- GDC 14 & 16. This LAR does not affect RCPB integrity. There is no impact to reactor water purity and no increase in corrosion probabilities.

- GDC 30. This LAR does not impact the ability to collect and monitor identified leakage sources to the primary reactor containment separately from unidentified leakage sources. The only change to the TS involves changing the instrumentation actuation trip setpoints and allowable values. There is no change to the limiting conditions for identified and unidentified leakage and the availability of instruments to assure adequate coverage at all times.

- GDC 60 & 61. There is no impact to the existing barriers to release of radioactive effluents. There is no impact to venting and collecting drainage from the RWCS components through closed systems.

7.0 INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

Exelon Generation Company, LLC, Licensee under Facility Operating Licenses NPF-39 and NPF-85 for Limerick Generating Station, Units 1 and 2, 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?

The increase in the isolation setpoint and allowable value for the Reactor Water Cleanup System (RWCS) pump room high ambient temperature and high differential temperatures will not make any physical changes (modification) to the plant equipment. The proposed change increases the temperature settings for alarm and isolation without impacting the safety function, and therefore, does not increase the probability of an accident previously evaluated. This increase in the RWCS pump room high ambient temperature and high differential temperatures has been evaluated to ensure that the change does not adversely affect the ability of The Primary Containment and Reactor Vessel Isolation Control System to perform its safety related function during accident conditions.

The RWCS high ambient temperature and high differential temperatures design bases calculations were evaluated as part of this License Amendment Request (LAR). The results of this evaluation showed that the calculations were very conservative and a portion of the additional margin has been utilized to allow system settings at higher temperatures without impacting the design limit of the system. In addition, the detection and isolation functions are also supported by the high differential flow monitoring instrumentation within the RWCS. Therefore, the detection and isolation functions will be completed even accounting for common mode and single failure criteria.

This LAR does not increase the consequences of an accident previously evaluated in the Updated Final Safety Analysis Report (UFSAR). This proposed change has no impact on the High Energy Line Break (HELB) or Loss Of Coolant Accident (LOCA) accident analyses. This LAR does not adversely affect mitigating systems, structures or components (SSC), and does not adversely affect the initial conditions of any accidents. Redundancy and diversity of mitigating systems are unchanged as a result of this LAR. This LAR does not affect onsite or offsite radiological consequences of any accident previously evaluated in the UFSAR. The new settings provide for the detection and isolation of a leak in excess of 25 GPM that is the design basis of the system.

Therefore, this LAR 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?

The increase in the RWCS pump room high ambient temperature and high differential temperature settings proposed by this LAR does not change any SSC. This LAR does not create new operating or failure modes. The normal operating RWCS ambient temperature and differential temperatures are maintained to ensure the SSC perform their safety functions before, during and after accident conditions. Engineering calculations have shown that sufficient sensitivity is maintained to insure the limits for RWCS leak detection and isolation at temperatures equivalent to isolate a 25 GPM leak are not exceeded by this change. Existing instruments are not accident initiators in any failure mode and changing settings does not change the instrument's functions.

Therefore, this LAR 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 the margin of safety?

This LAR will allow the plant to operate at higher ambient temperatures in the RWCS pump rooms during normal operation. This change does not create additional heat loads or change the way any of the equipment is operated. The original analysis of room heat-up due to a 25 GPM leak was done for the larger RWCS regenerative heat exchanger rooms (bounding case for smaller pump rooms). The pump rooms are approximately one third of the size of the heat exchanger rooms. Therefore, a very large design margin is provided by the isolation setpoints that were chosen for the RWCS pump rooms. This LAR uses a portion of that excess margin, while still maintaining significant conservatism.

Engineering calculations have demonstrated that the RWCS Isolation design temperature requirements are maintained with a normal operating air temperature of ≤ 155 degrees Fahrenheit and a normal operating differential air temperature of ≤ 52 degrees Fahrenheit. Therefore, a change to the TS for RWCS Pump Room high ambient temperature and high differential temperature limits to allow the plant to operate up to a normal operating air temperature of ≤ 155 degrees Fahrenheit and a normal operating differential air temperature of ≤ 52 degrees Fahrenheit does not have any adverse effect on the ability of safety related equipment to perform their design functions. Affected equipment will remain within the limitations of the Environmental Qualification (EQ) program.

Therefore, this LAR does not involve a significant reduction in the margin of safety.

Based on the above, Exelon Generation Company, LLC concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10CFR50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

8.0 INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

An Environmental Assessment is not required for the change proposed by this License Amendment Request because the requested change to the Limerick Generating Station (LGS), Units 1 and 2, TS conforms to the criteria for "actions eligible for categorical exclusion" as specified in 10 CFR 51.22 (c)(9). The proposed change will have no impact on the environment. The proposed change does not involve a Significant Hazards Consideration as discussed in the preceding section. The proposed change does not involve a significant change in the types, or a significant increase in the amounts, of any effluents that may be released offsite. In addition, the proposed change does not involve a significant increase in individual or cumulative occupational radiation exposure.

9.0 REFERENCES

Limerick Generating Station Updated Final Safety Analysis Report (UFSAR) Sections:

3.11	Environmental Qualifications Requirements
5.2.5.2.2.2	RWCS Leak Detection System
7.6.1.3.3	Standby Gas Treatment System
7.6.1.3.3	Reactor Enclosure Isolation System
7.6.1.3.3.4	RWCS Instrumentation and Controls
Table 6.2-17	Primary Containment Isolation Valves

General Electric System Design Specification Reactor Water Cleanup System – High Pressure, Document Number 22A2897, Revision 1, Dated July 30,1971

General Electric/Nuclear Regulatory Commission Engineering Evaluation Report AEOD/E075, Dated March, 1987

Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems", Dated May, 1973

ATTACHMENT 2

LIMERICK GENERATING STATION
UNITS 1 and 2

DOCKET NOS. 50-352
50-353
LICENSE NOS. NPF-39
NPF-85

LICENSE AMENDMENT REQUEST 01-00129

"Reactor Water Cleanup System Steam Leak Detection Instrumentation Setpoints"

MARKED UP TECHNICAL SPECIFICATION PAGES

UNIT 1

3/4 3-19

UNIT 2

3/4 3-19

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
3. REACTOR WATER CLEANUP SYSTEM ISOLATION		
a. RWCS Δ Flow - High	≤ 54.9 gpm	≤ 65.2 gpm
b. RWCS Area Temperature - High	~~≤ 142°F or 132°F**~~ ≤155°F or ≤132°F**	~~≤ 147°F or 137°F**~~ ≤160°F or ≤137°F**
c. RWCS Area Ventilation Δ Temperature - High	~~≤ 32°F~~ ≤52°F or ≤32°F**	~~≤ 40°F~~ ≤60°F or ≤40°F**
d. SLCS Initiation	N.A.	N.A.
e. Reactor Vessel Water Level - Low, Low, - Level 2	≥ -38 inches *	≥ -45 inches
f. Manual Initiation	N.A.	N.A.
4. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION		
a. HPCI Steam Line Δ Pressure - High	≤ 974" H_2O	≤ 984" H_2O
b. HPCI Steam Supply Pressure - Low	≥ 100 psig	≥ 90 psig
c. HPCI Turbine Exhaust Diaphragm Pressure - High	≤ 10 psig	≤ 20 psig
d. HPCI Equipment Room Temperature - High	225°F	≥ 218°F, ≤ 247°F
e. HPCI Equipment Room Δ Temperature - High	≤ 126°F	≤ 130.5°F
f. HPCI Pipe Routing Area Temperature - High	175°F	≥ 165°F, ≤ 200°F
g. Manual Initiation	N.A.	N.A.
h. HPCI Steam Line Δ Pressure - Timer	3 ≤ τ ≤ 12.5 seconds	2.5 ≤ τ ≤ 13 seconds

REVISE PER THIS LAR

TABLE 3.[illegible]-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION		TRIP SETPOINT	ALLOWABLE VALUE
3. REACTOR WATER CLEANUP SYSTEM ISOLATION			
a.	RWCS Δ Flow - High	≤ 54.9 gpm	≤ 65.2 gpm
b.	RWCS Area Temperature - High	~~≤ 142°F or 132°F**~~ ≤155°F or ≤132°F**	~~≤ 147°F or 137°F**~~ ≤160°F or ≤137°F**
c.	RWCS Area Ventilation Δ Temperature - High	~~≤ 32°F~~ ≤52°F or ≤32°F**	~~≤ 40°F~~ ≤60°F or ≤40°F **
d.	SLCS Initiation	N.A.	N.A.
e.	Reactor Vessel Water Level - Low, Low, - Level 2	≥ -38 inches *	≥ -45 inches
f.	Manual Initiation	N.A.	N.A.
4. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION			
a.	HPCI Steam Line Δ Pressure - High	≤ 974" H_2O	≤ 984" H_2O
b.	HPCI Steam Supply Pressure - Low	≥ 100 psig	≥ 90 psig
c.	HPCI Turbine Exhaust Diaphragm Pressure - High	≤ 10 psig	≤ 20 psig
d.	HPCI Equipment Room Temperature - High	225°F	≥ 218°F, ≤ 247°F
e.	HPCI Equipment Room Δ Temperature - High	≤ 126°F	≤ 130.5°F
f.	HPCI Pipe Routing Area Temperature - High	175°F	≥ 165°F, ≤ 200°F
g.	Manual Initiation	N.A.	N.A.
h.	HPCI Steam Line Δ Pressure - Timer	$3 \leq \tau \leq 12.5$ seconds	$2.5 \leq \tau \leq 13$ seconds

REVISE PER THIS LAR

LIMERICK - UNIT 2

3/4 3-19

FEB 16 1995

Amendment No. 46, 51

ATTACHMENT 3

LIMERICK GENERATING STATION
UNITS 1 and 2

DOCKET NOS. 50-352
50-353
LICENSE NOS. NPF-39
NPF-85

LICENSE AMENDMENT REQUEST 01-00129

"Reactor Water Cleanup System Steam Leak Detection Instrumentation Setpoints"

CAMERA-READY TECHNICAL SPECIFICATION PAGES

UNIT 1

3/4 3-19

UNIT 2

3/4 3-19

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
3. REACTOR WATER CLEANUP SYSTEM ISOLATION		
a. RWCS Δ Flow - High	≤ 54.9 gpm	≤ 65.2 gpm
b. RWCS Area Temperature - High	≤ 155°F or ≤ 132°F**	≤ 160°F or ≤ 137°F** |
c. RWCS Area Ventilation Δ Temperature - High	≤ 52°F or ≤ 32°F**	≤ 60°F or ≤ 40°F** |
d. SLCS Initiation	N.A.	N.A.
e. Reactor Vessel Water Level - Low, Low, - Level 2	≥ -38 inches *	≥ -45 inches
f. Manual Initiation	N.A.	N.A.
4. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION		
a. HPCI Steam Line Δ Pressure - High	≤ 974" H_2O	≤ 984" H_2O
b. HPCI Steam Supply Pressure - Low	≥ 100 psig	≥ 90 psig
c. HPCI Turbine Exhaust Diaphragm Pressure - High	≤ 10 psig	≤ 20 psig
d. HPCI Equipment Room Temperature - High	225°F	≥ 218°F, ≤ 247°F
e. HPCI Equipment Room Δ Temperature - High	≤ 126°F	≤ 130.5°F
f. HPCI Pipe Routing Area Temperature - High	175°F	≥ 165°F, ≤ 200°F
g. Manual Initiation	N.A.	N.A.
h. HPCI Steam Line Δ Pressure - Timer	$3 \leq \tau \leq 12.5$ seconds	$2.5 \leq \tau \leq 13$ seconds

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
3. REACTOR WATER CLEANUP SYSTEM ISOLATION		
a. RWCS Δ Flow - High	≤ 54.9 gpm	≤ 65.2 gpm
b. RWCS Area Temperature - High	≤ 155°F or ≤ 132°F**	≤ 160°F or ≤ 137°F**
c. RWCS Area Ventilation Δ Temperature - High	≤ 52°F or ≤ 32°F**	≤ 60°F or ≤ 40°F**
d. SLCS Initiation	N.A.	N.A.
e. Reactor Vessel Water Level - Low, Low, - Level 2	≥ -38 inches *	≥ -45 inches
f. Manual Initiation	N.A.	N.A.
4. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION		
a. HPCI Steam Line Δ Pressure - High	≤ 974" H_2O	≤ 984" H_2O
b. HPCI Steam Supply Pressure - Low	≥ 100 psig	≥ 90 psig
c. HPCI Turbine Exhaust Diaphragm Pressure - High	≤ 10 psig	≤ 20 psig
d. HPCI Equipment Room Temperature - High	225°F	≥ 218°F, ≤ 247°F
e. HPCI Equipment Room Δ Temperature - High	≤ 126°F	≤ 130.5°F
f. HPCI Pipe Routing Area Temperature - High	175°F	≥ 165°F, ≤ 200°F
g. Manual Initiation	N.A.	N.A.
h. HPCI Steam Line Δ Pressure - Timer	$3 \leq \tau \leq 12.5$ seconds	$2.5 \leq \tau \leq 13$ seconds