Station Support Department

10CFR50.90

PECO NUCLEAR
A Unit of PECO Energy

PECO Energy Company
965 Chesterbrook Boulevard
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September 27, 1996

Docket Nos. 50-352
50-353

License Nos. NPF-39
NPF-85

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

Subject: Limerick Generating Station, Units 1 and 2
Technical Specifications Change Request No. 96-07-0
Increase Secondary Containment Inleakage Rate

Gentlemen:

PECO Energy Company (PECO Energy) is submitting Technical Specifications (TS) Change Request No. 96-07-0, in accordance with 10 CFR 50.90, requesting a change to TS (i.e., Appendix A) of Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2.

This proposed TS Change will change the Unit 1 and Unit 2 TS, increasing the Reactor Enclosure Secondary Containment maximum inleakage rate. This change will also impact LGS secondary containment drawdown time and system flow rate assumptions, thereby, affecting charcoal filter bed efficiency and post accident dose analysis.

Information supporting this TS Change Request is contained in Attachment 1 to this letter, and copies of the marked-up TS pages for the LGS, Units 1 and 2 TS are contained in Attachment 2. The TS Change information is being submitted under affirmation, and the required Affidavit is enclosed.

We request that if approved, the TS Change be issued by January 24, 1997, and become effective within 30 days of issuance.

If you have any questions, please do not hesitate to contact us.

Very truly yours,

G. A. Hunger, Jr.

G. A. Hunger, Jr.
Director-Licensing

Attachments:Enclosure

cc: H. J. Miller, Administrator, Region I, USNRC
N. S. Perry, USNRC Senior Resident Inspector, LGS
R. R. Janati, PA Bureau of Radiation Protection

COMMONWEALTH OF PENNSYLVANIA :

:ss

COUNTY OF CHESTER :

D. B. Fetters, being first duly sworn, deposes and says: That he is Vice President of PECO Energy Company, the Applicant herein; that he has read the enclosed Technical Specifications Change Request No. 96-07-0 "Increase Secondary Containment Inleakage Rate," for Limerick Generating Station, Unit 1 and Unit 2, Facility Operating License Nos. NPF-39 and NPF-85, and knows the contents thereof, and that the statements and matters set forth therein are true and correct to the best of his knowledge, information, and belief.

Subscribed and sworn to
before me this 27th day
of September 1996.

Mary Lou Skrocki

Notary Public

Notarial Seal
Mary Lou Skrocki, Notary Public
Tredyffrin Twp., Chester County
My Commission Expires May 17, 1999
Member, Pennsylvania Association of Notaries

ATTACHMENT 1

LIMERICK GENERATING STATION

UNITS 1 AND 2

Docket Nos.
50-352
50-353

License Nos.
NPF-39
NPF-85

"Increase Secondary Containment Inleakage Rate"

Information Supporting Changes - 14 Pages

DISCUSSION AND DESCRIPTION OF THE PROPOSED CHANGES

PECO Energy Company (PECO Energy) is requesting Technical Specifications (TS) changes which will revise the Reactor Enclosure secondary containment post drawdown maximum inleakage rate from 1250 cfm per unit to 2500 cfm per unit. This proposed change is applicable to Limerick Generating Station (LGS) Unit 1 and Unit 2.

Recent testing experiences have shown that it is becoming difficult to maintain the affected Reactor Enclosure secondary containment zone at an inleakage of less than 1250 cfm. Normal wear and tear on secondary containment doors, seals, gaskets, and penetrations have contributed to a reduction in the overall reactor enclosure leak tightness which affects the testing requirements. In addition, the LGS Units are subject to site conditions (i.e., atmospheric temperature differences and sustained wind speeds exceeding 7.0 mph) which impact testing. As a result, a significant amount of time, effort, and coordination is necessary to reduce the inleakage to below the 1250 cfm TS requirement.

Increasing the Reactor Enclosure secondary containment post drawdown maximum inleakage rate to 2500 cfm per unit will affect the Standby Gas Treatment System's charcoal filter residence time, and the system's drawdown time, which will result in a slight increase in the postulated off-site and on-site doses.

Increasing the inleakage is a change to the current LGS accident analysis assumptions used to calculate the post Design Basis Accident (DBA) control room and off-site doses. PECO Energy has also incorporated all dose assumptions contained in NRC approved Safety Evaluations in order to have a consolidated set of assumptions which will supersede the assumptions contained in separate Safety Evaluations. Specifically, this consolidation will contain: crediting suppression pool scrubbing; using a consistent set of assumptions for iodine removal for on-site and off-site dose evaluations; and selecting a simplified set of iodine assumptions that are more consistent with NRC LGS analyses and/or current NRC generic guidance.

TS SAFETY ASSESSMENT

The LGS Standby Gas Treatment System (SGTS) is an engineered safety feature system whose primary safety related function is to isolate and drawdown the secondary containment, filter the halogen and particulate concentrations in the gases potentially present prior to discharge, and maintain a negative pressure in the affected secondary containment zone(s) following a DBA.

The LGS SGTS operates in conjunction with the Reactor Enclosure Recirculation System (RERS). The RERS is used to filter the halogen and particulate concentrations in gases potentially present in the reactor enclosure following a DBA. The RERS is the initial cleanup system and the SGTS is the final cleanup system before discharge to the environment.

The LGS secondary containment consists of three distinct isolation zones. Zones I and II are the Unit 1 and Unit 2 Reactor Enclosures respectively, and Zone III is the common Refueling Area. The SGTS is designed to isolate all three zones simultaneously or any combination of the three isolation zones.

Currently, LGS drawdown is defined as the time it takes the SGTS to restore a negative pressure of at least - 0.25 inches w.g. (water gauge) in the affected Reactor Enclosure secondary containment isolated zone(s) following an isolation signal. Once the negative pressure is restored, the SGTS must maintain the negative pressure at a maximum inleakage rate of 1250 cfm with wind speeds of less than or equal to 7.0 mph.

The current LGS TS for both units require that, at least once per 24 months, the ability of the SGTS to drawdown the Reactor Enclosure secondary containment within 2 minutes and 20 seconds and maintain the pressure at an inleakage rate not exceeding 1250 cfm be demonstrated. Failure to demonstrate this ability results in a loss of the Reactor Enclosure secondary containment integrity.

System Analysis

Changing the Reactor Enclosure secondary containment post drawdown maximum inleakage rate to 2500 cfm per unit will affect the following critical licensing basis parameters of the SGTS: A) charcoal filter residence time, B) drawdown time, and C) off-site and on-site calculated dose analysis. The 2500 cfm represents a leakage rate of 200% of the Reactor Enclosure volume per day. Provided below is an analysis of the effect on each of these features.

A. Charcoal Filter Residence Time

Residence time is defined as the contact time between the air (i.e., inleakage) being processed by the SGTS and the charcoal in the adsorber bed. NRC Regulatory Guide (R.G.) 1.52, "Post Accident ESF Atmosphere Cleanup System Air Filtration and Adsorption Units," Revision 2, March 1978, Position C.3.i states that the adsorber beds should be designed for an average residence time of 0.25 seconds per two inches of adsorber bed.

The current LGS design has an eight inch deep adsorber bed with an assigned efficiency of 99% for trapping radioactive iodine in the form of elemental iodine and methyl iodide. The current residence time for the existing bed for a three zone isolation inleakage rate of 3264 cfm (i.e., 1250 cfm each unit and 764 cfm from the Refueling Area) is 1.1 seconds.

Increasing the secondary containment post drawdown inleakage rate to 2500 cfm for each Reactor Enclosure will result in a three zone isolation inleakage rate of 5764 cfm (i.e., 2500 cfm each unit and 764 cfm from the Refueling Area). At this inleakage rate, the residence time is reduced from 1.1 seconds to 0.68 seconds (LGS Calc LM-549). Although the revised residence time does not literally meet the R.G. 1.52 design guidelines, the LGS SGTS charcoal adsorbers can still claim a decontamination efficiency of 99%. The basis for this position is that an eight inch deep adsorber bed with a 0.68 seconds residence time is equivalent to a four inch deep adsorber bed with a 0.5 seconds residence time which per R.G. 1.52, would be assigned a decontamination efficiency of 99%. Our position is further supported by the following:

1. R.G. 1.52, Position C.6.a, specifies three conditions that must be met in order to be assigned a decontamination efficiency of 99% for activated bed depths of four inches or greater. These 3 conditions are: 1) The activated carbon adsorber section is periodically tested to ensure that the bypass leakage through the adsorber is less than 0.05%; 2) New activated carbon meets the physical property specifications given in Table 5.1 of ANSI N509-1976 "Nuclear Power Plant Air-Cleaning Units and Components"; and 3) Representative samples of used activated carbon pass the laboratory tests specified in Table 2 of R.G. 1.52. The LGS SGTS charcoal adsorbers will continue to meet or exceed these three conditions.

2. Published data (Iodine Penetration vs. Air Velocity), based on NRC endorsed standardized test methods (ASTM D3803) from our charcoal supplier, has shown that at a constant residence time, doubling the bed depth will significantly reduce the amount of iodine penetration through the bed. Review of this data concluded that an eight inch deep charcoal bed with a residence time exceeding 0.5 seconds is more efficient than a four inch deep charcoal bed with a residence time of 0.5 seconds due to the additional four inches of charcoal available for adsorption.

3. In July 1996, performance tests were conducted by NUCON (i.e., the LGS charcoal supplier) on four and eight inch deep charcoal bed samples at residence times of 1.0 seconds and also at 0.68 seconds. The purpose of these tests was to verify the ability of an eight inch deep charcoal bed to meet

the iodine penetration requirements of R.G. 1.52 at a reduced residence time and to compare the impact of the different residence times on iodine penetration. These tests proved that an eight inch deep charcoal bed, at a residence time of 0.68 seconds can function effectively and will meet the performance requirements of R.G. 1.52 for claiming a 99% decontamination efficiency. These tests also showed that the eight inch deep charcoal bed with a 0.68 seconds residence time had a higher efficiency than a four inch deep charcoal bed with a 0.5 seconds residence time.

The new residence time of 0.68 seconds represents a velocity through the charcoal adsorber of approximately 66 feet per minute (fpm). The existing station procedures for performing the laboratory analysis on carbon samples will be revised to require the analysis be performed at a velocity of 66 fpm. The LGS TS Bases will also be revised to specify that the laboratory analysis will be performed at a velocity of 66 fpm and the in-place penetration and bypass leakage testing at a flowrate of 5764 cfm. Furthermore, Table 6.5-2 (Compliance with R.G. 1.52) of the LGS Updated Final Safety Analysis Report (UFSAR) will be revised to note this deviation from the R.G. 1.52, Position C.3.i, requirement for residence time.

It should be noted that the above residence time of 0.68 seconds only occurs during a three zone isolation (i.e., both Reactor Enclosures and the Refueling Area). For a single zone isolation (i.e., Reactor Enclosure Unit 1 or Unit 2) the residence time is 1.5 seconds and for a two zone isolation (i.e., either Reactor Enclosure and the Refueling Area) the residence time is 1.1 seconds.

B. Drawdown Time

Drawdown time is defined as the time it takes for the LGS SGTS to restore a negative pressure of at least - 0.25 inches w.g. in the affected Reactor Enclosure secondary containment isolation zone(s) following an isolation signal. The safety analysis assumes that during the drawdown period following a DBA at time equals 0, total fuel damage occurs and all leakage from the primary containment goes to, and mixes in 50% of the secondary containment volume. The analysis takes no credit for any RERS and/or SGTS filtering of the secondary containment release during the drawdown period. Secondary containment is assumed to exhaust at 3000 cfm during the drawdown period because this is the peak fan capacity for each Reactor Enclosure.

The current drawdown time for each Reactor Enclosure secondary containment isolation zone is 2 minutes and 20 seconds.

Increasing the secondary containment post drawdown inleakage rate to 2500 cfm

for each Reactor Enclosure will result in increasing the drawdown time to 15 minutes and 30 seconds. The revised drawdown analysis is documented in LGS calculation LM-0550, Rev. 0.

The impact of increasing the drawdown time is discussed in Section C. Below.

C. Off-Site and On-Site Dose Analyses

NRC Safety Evaluation Report, Supplement 3 (SSER-3) issued October 1984 documents the basis for the original LGS DBA analysis i.e., Loss of Coolant Accident (LOCA) analysis. Subsequent plant changes and TS amendments have altered the original assumptions and resulting doses, which are contained in separate NRC Safety Evaluations: i.e., Unit 1 TS Amendment 106 and Unit 2 TS Amendment 51 - "Revised Maximum Authorized Thermal Power Limit," dated January 24, 1996 and February 16, 1995, respectively; Unit 1 TS Amendment 107 and Unit 2 TS Amendment 53 - "Increase Allowable MSIV Leak Rate and Deletion of MSIV Leakage Control System," dated January 25, 1996 and February 16, 1995, respectively.

Secondary containment inleakage rates and drawdown times are parameters that are used in dose analyses for the limiting DBA. The proposed increases in these parameters increase the calculated off-site and on-site doses.

During drawdown no credit is taken for filtration by either the SGTS or the RERS. Therefore, increasing this duration will increase the duration of unfiltered releases. After the drawdown period the exhaust rate from secondary containment through the SGTS is assumed to be the same as the inleakage rate. This tends to increase off-site doses to some degree, particularly early in the accident.

As previously noted, accident analysis assumptions are being modified to support this change, and will also incorporate previously accepted assumptions in order to establish a consolidated reference of on-site and off-site design basis assumptions. PECO Energy performed a comparison of key parameters used by previous NRC and PECO analyses, and incorporated these assumptions in the dose re-analysis (LGS Calc. LM-0551).

The following are the proposed re-analysis assumptions, which if accepted will be the new LGS design basis assumptions.

Loss-Of-Coolant Accident: Parameters

		Design Basis Assumptions
I.	Data and Assumptions Used to Estimate Radioactive Source from Postulated Accidents	
	A. Power Level	3527MW
	B. Burnup	NA
	C. Fission Products Released From Fuel to Primary Containment	
	1. Noble Gas	100%
	2. Iodine	25%
	D. Fission Products Released From Fuel to Suppression Pool	
	1. Noble Gas	0%
	2. Iodine	50%
	E. Release of Activity by Nuclide to the Environment	UFSAR Table 15.6-16
	F. Iodine Fractions	
	1. Organic	0.04
	2. Elemental	0.91
	3. Particulate	0.05
	G. Reactor Coolant Activity Before the Accident	UFSAR Sec. 15.6.5.5.1
II.	Data and Assumptions Used to Estimate Activity Released	
	A. Primary Containment Leak Rate Excluding MSIVs (%/day)	0.5
	B. Secondary Containment Release Rate	
	1. During Drawdown (0-15.5 min)*	3000 cfm
	2. After Drawdown (15.5 min- 30 days)	2500 cfm (200%/day)
	C. Valve Movement Times	NA
	D. SGTS Adsorption and Filtration Efficiency (%)	99

E. Recirculation System Parameters	
1. Flow Rate (cfm)	$6x10^4$
2. Mixing Efficiency	50%
3. Filter Efficiency	95%/30%/99% (for E/O/P)
F. Containment Spray Parameters (flow rate, drop size, etc.)	NA
G. Containment Volumes (ft^3)	
1. Primary	$3.975x10^5$
2. Secondary (Total) Unit 1 Reactor Enclosure	$1.8x10^6$
H. All Other Pertinent Data and Assumptions	
1. MSIV Leakage	200 scfh
2. ECCS Leakage	5 gpm

III. Dispersion Data

A. EAB / LPZ Distance (m)	731 / 2043
B. X / Qs for Time Intervals of	
1. 0-2 hrs - EAB	$2.9x10^{-4}$
2. 0-8 hrs - LPZ	$4.0x10^{-5}$
3. 8-24 hrs - LPZ	$2.9x10^{-5}$
4. 1-4 days - LPZ	$1.4x10^{-5}$
5. 4-30 days - LPZ	$5.4x10^{-6}$

IV. Dose Data

A. Method of Dose Calculation	UFSAR Sec.15.10
B. Dose Conversion Assumptions	UFSAR Sec.15.10
C. Peak Activity in Primary Containment	UFSAR Table 15.6-14
D. Peak Activity in Reactor Enclosure	UFSAR Table 15.6-15
E. Doses	UFSAR Table 15.6-20

*Drawdown period determination is based on a more conservative 2800 cfm SGTS flow to allow for flow balancing margin.

The original PECO Energy assumptions considered secondary containment mixing. However, the NRC did not consider mixing as described in LGS SSER-3, which is consistent with NRC Branch Technical Position CSB 6.3 "Determination of Bypass Leakage Paths in Dual Containment Plants," July 1981 and SRP 6.5.3 "Fission Product Control Systems and Structures, Revision 2, July 1981." PECO Energy's re-analysis credits mixing for the DBA which is generically not assumed in CSB 6.3. However, leakage from secondary containment for LGS can be conservatively determined during positive pressure periods based on the following:

(1) Primary containment leakage locations are well away from the secondary containment boundary and a number of physical phenomena, described in the LGS UFSAR, (Section 15.6.5.5.1.2.b.) which will contribute to mixing and holdup.
(2) After three minutes, RERS will start, providing an additional mixing mechanism.
(3) Outleakage is adequately quantified based on inleakage measurements.
(4) Adequate conservatism is provided by the facts that: (a) No RERS filtration credit is taken during the drawdown period, and (b) No SGTS filtration credit is taken, although flow through this system will be competing with secondary containment exfiltration and will likely be more efficient in drawing from zones where primary containment leakage occurs.

Suppression pool scrubbing was also not credited in the original NRC SER for LGS, but was credited in the NRC MSIV Alternate Drain Pathway Safety Evaluation. Therefore, a decontamination factor of 10, which is consistent with the MSIV Alternate Drain Pathway Safety Evaluation, was assumed in this re-analysis.

10 CFR 100 "Reactor Site Criteria," specifies reference exposure limits for Exclusion Area Boundary (EAB) and the Low Population Zone (LPZ). 10 CFR 50, Appendix A "General Design Criteria for Nuclear Power Plants," GDC-19, establishes reference exposure limits for Control Room Personnel. In addition, Standard Review Plan 6.4 "Control Room Habitability System," provides guidance for Vital Areas doses. In order to assess the proposed changes the EAB, LPZ, Control Room, and Vital Area doses were re-analyzed (Calc. LM-551, Rev. 0). The results of the re-analysis are described below and were determined to be below the regulatory reference limits and consistent with or conservative relative to the current LGS UFSAR.

DBA LOCA DOSES (Rem)

LOCATION		OFF/ON-SITE DOSES	NRC LIMIT
EAB	Thyroid	2.50	300
	Whole Body	0.93	25
LPZ	Thyroid	38.10	300
	Whole Body	1.63	25
Control Room*	Thyroid	7.31	30
	Whole Body	4.69	5
	Skin	11.9	30

(*In the limiting chlorine isolation mode)

EAB thyroid was the most limiting dose identified in the original NRC analysis, which was 52% of the 10 CFR 100 limit. The PECO re-analysis continues to show much higher margins. The Control Room thyroid and whole body re-analyzed doses are less than what is currently stated in the UFSAR. Re-analyzed skin doses are slightly higher due to different dose conversion factors which consider both beta and gamma contribution. As a result of the re-analysis, the limiting dose margins were not reduced relative to the GDC-19 limits.

System Operating Analysis

Changing the Reactor Enclosure secondary containment post drawdown maximum inleakage rate to 2500 cfm per unit will not require any modifications to the SGTS or any supporting system based on the following:

A. The capacity of the existing SGTS fans is not affected. Increasing the secondary containment post drawdown inleakage to 2500 cfm per unit will change the maximum three zone isolation inleakage rate from 3264 cfm to 5764 cfm. However, each of the two existing SGTS fans are rated for 8400 cfm.

B. The ductwork for each reactor enclosure secondary containment isolation was sized and balanced for a minimum flowrate of 3000 cfm.

C. The increase in the maximum inleakage rate is within the existing capability of the SGTS flow measurement instrumentation for measuring and displaying. Existing control room flowrate indicators are still appropriate for indicating the post drawdown flowrate. The function and operation of the existing instrumentation is not affected by the inleakage rate change; however, recalibration of several instruments will be necessary to reflect the new range of flow.

D. The existing SGTS pressure control loop is not affected by the increase in the maximum inleakage rate and will still be capable of maintaining the secondary containment differential pressure as designed.

E. The change does not have any affect on any fire protection system or fire dampers located within the HVAC system ductwork.

F. The increase in the maximum inleakage rate will have no affect on the electrical loading of the SGTS or any supporting components.

G. The increase in the maximum allowable secondary containment inleakage rate:

1. Will not affect the capability or operability of the north stack radiation monitoring instrumentation. The isokinetic sample probes as well as the sample pumps are capable of handling the increased flow. However, recalibration will be necessary to reflect the new range of flow.

2. The Radiological Meteorology Monitoring System (RMMS) software is not affected by the change. However, data base monitoring items #60 (process flow rate substitute value), #63 (Process flow rate conversion factor), and #82 (Customer process flow, high limit accident) must be changed in accordance with station procedure RMMS-404 to reflect the new maximum flow of 5,764 scfm.

3. The common dose model (i.e., MESOREM, Jr.) software is not affected by the change. However, the table containing isotopic values for secondary containment source term will be revised to reflect the changes.

INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

PECO Energy has concluded that the proposed changes to the Limerick Generating Station (LGS) Unit 1 and Unit 2 Technical Specifications (TS), which will increase the Reactor Enclosure Secondary Containment post drawdown maximum inleakage rate from 1250 cfm per unit to 2500 cfm per unit, do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three standards set forth in 10 CFR 50.92 is provided below.

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

   Changing the Reactor Enclosure post drawdown inleakage rate from 1250 cfm to 2500 cfm does not involve any changes to the function or operation of any plant component or safety related system. The Reactor Enclosure Recirculation System (RERS) and the Standby Gas Treatment System (SGTS) will maintain their design function by mitigating the radiological consequences of the analyzed accident and mitigating the post LOCA temperatures within the Reactor Enclosures. No analyzed accident initiating events are impacted, no new accident initiators are created, and no new failure modes are created. There are no changes to the redundancy, separation, quality assurance or fire protection requirements for the associated components and systems.

   The proposed changes to the LGS adsorber bed residence time will no longer fully meet the literal design guidance provided in Regulatory Guide (RG) 1.52, "Design, Testing, and Maintenance Criteria for Post Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filter and Adsorption Units of Light-Water-Cooled Nuclear Power Plants," Revision 2, March 1978. This is because LGS's unique, yet more conservative, adsorber bed design is not addressed by the RG residence time design guidance. However, the LGS SGTS charcoal adsorbers still conform to the design function described in RG 1.52, based on the following: The LGS design with increased inleakage will continue to conform to the three conditions specified by RG 1.52, Position C.6.a, in order to maintain an assigned decontamination efficiency of 99%; there is a conservative amount of charcoal adsorber material provided by the LGS design, based on calculations performed in accordance with RG 1.3 "Assumptions Used For Evaluating The Potential Radiological Consequences of a Loss of Coolant Accident For Boiling Water Reactors"; and the LGS charcoal bed design is more conservative than the RG 1.52 design guidance, based on data (i.e., Iodine Penetration vs. Air Velocity) published by the charcoal manufacturer.

Therefore, the probability of occurrence and the consequences of a malfunction of equipment important to safety is not increased. Also, the probability of occurrence of an accident previously evaluated is not increased. However, the proposed changes do affect the leak tightness of the Unit 1 and Unit 2 Reactor Enclosure, which increases the consequences of a postulated accident previously evaluated.

Changing the Reactor Enclosure post drawdown inleakage rate from 1250 cfm to 2500 cfm will result in an increase in the calculated LOCA/LOOP Design Basis Accident (DBA) off-site and on-site doses. 10 CFR Part 100, and 10 CFR Part 50 Appendix A, General Design Criteria (GDC) 19, establish reference dose values used to determine site suitability and provide reasonable assurance that the facility can be operated following the analyzed accident without undue risk to the health and safety of the public. The proposed TS changes will increase the SGTS drawdown time from 2 minutes and 20 seconds to 15 minutes and 30 seconds. The drawdown time increase will not prevent the RERS/SGTS from performing all of their safety related functions. However, because it is conservatively assumed that all radioactive material released during the drawdown period is unfiltered, and because the drawdown period has been extended whereby more unfiltered radioactive material is assumed to be released following the DBA, there is a corresponding increase in the calculated Exclusion Area Boundary (EAB), Low Population Zone (LPZ), and Control Room doses. It is also assumed that the SGTS exhausts at the maximum inleakage rate throughout the entire DBA evaluation period (i.e., 30 days) where an increase in the maximum inleakage rate would also contribute to higher postulated EAB, LPZ, and Control Room doses. However, the proposed calculated doses do not exceed 10 CFR Part 100, or 10 CFR Part 50, Appendix A, DGC 19 reference doses.

Since the proposed doses resulting from the changes remain below 10 CFR Part 100, and 10 CFR Part 50, Appendix A, these proposed changes will not significantly increase the consequences of an accident previously evaluated.

2. <u>The proposed TS changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.</u>

Changing the Reactor Enclosure post drawdown inleakage rate from 1250 cfm to 2500 cfm is not an accident initiator nor does it result in the occurrence of an accident. The changes do not affect the function or operation of any plant component or safety related system nor do they create any new failure modes.

In addition, the proposed changes do not involve any changes to the function or operation of any plant system or component nor will they adversely affect the Reactor Enclosure post LOCA environmental conditions. Furthermore, these changes will not create any new or different failure modes for the equipment important to safety within the Reactor Enclosure Secondary Containment.

Therefore, the possibility of an accident of a different type or a different type of malfunction of equipment important to safety than previously evaluated is not created.

3. The proposed TS changes do not involve a significant reduction in a margin of safety.

Changing the Reactor Enclosure post drawdown inleakage rate from 1250 cfm to 2500 cfm will result in reducing the margin of safety as defined in the LGS Updated Final Safety Analysis Report (UFSAR) relative to the off-site and on-site doses following a LOCA/LOOP DBA, and an increase of the UFSAR specified system drawdown time. From a system perspective, increasing the SGTS drawdown time from 2 minutes and 20 seconds to 15 minutes and 30 seconds will not prevent the RERS/SGTS from performing all of their safety related functions. There will be a postulated increase in the corresponding EAB, LPZ, and Control Room doses, since it is assumed that fuel damage occurs coincident with the LGS DBA (i.e, at time = 0), all radioactive material released during the drawdown time is unfiltered, and the drawdown time is proposed to be extended whereby more unfiltered radioactive material could be released. It is also assumed that the SGTS exhausts at the maximum inleakage rate throughout the entire DBA evaluation period (i.e., 30 days) where an increase in the maximum inleakage rate would also contribute to higher postulated EAB, LPZ, and Control Room doses. However, these calculated doses will remain below 10 CFR Part 100, and 10 CFR Part 50, Appendix A, GDC 19 reference doses.

Therefore, these proposed changes do not involve a significant reduction in a margin of safety.

INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

An Environmental Assessment is not required for the Technical Specifications changes proposed by this request because the requested changes to the Limerick Generating Station, Units 1 and Unit 2 TS conform to the criteria for "actions eligible for categorical exclusion," as specified in 10 CFR 51.22(c)(9). The proposed TS changes do not involve a Significant Hazards Consideration as discussed in the preceding safety assessment section. The proposed changes do not involve a significant change in the types or significant increase in the amounts of any effluent that may be released off-

site. In addition, the proposed TS changes do not involve a significant increase in individual or cumulative occupational radiation exposure.

CONCLUSION

The Plant Operations Review Committee and the Nuclear Review Board have reviewed these proposed changes to the Limerick Generating Station, Unit 1 and Unit 2, Technical Specifications, and have concluded that they do involve an unreviewed safety question; however, they do not involve a significant hazards consideration, and will not endanger the health and safety of the public.