PECO ENERGY

10 CFR 50.90

PECO Energy Company
Nuclear Group Headquarters
965 Chesterbrook Boulevard
Wayne, PA 19087-5691

March 1, 1995

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 No. 94-02-0
Hydrogen and Oxygen Calibration Gas Concentrations

Gentlemen:

PECO Energy Company is submitting Technical Specifications (TS) Change Request No. 94-02-0 in accordance with 10 CFR 50.90, requesting changes to the TS (i.e., Appendix A) of Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2.

These proposed changes will clarify the concentrations of calibration gas required to calibrate the Hydrogen and Oxygen Analyzers, and support the requirements of LGS Transient Response Implementation Plan (TRIP) T-102, "Primary Containment Control Bases."

Information supporting this TS Change Request is contained in Attachment 1 to this letter, and the proposed replacement pages for the LGS TS are contained in Attachment 2. This TS Change Request is being submitted under affirmation, and the associated affidavit is enclosed.

We request that, if approved, the amendment for LGS, Units 1 and 2, be issued prior to September 1, 1995 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: T. T. Martin, Administrator, Region I, USNRC (w/attachments and enclosure)
N. S. Perry, USNRC Senior Resident Inspector, LGS (w/attachments and enclosure)
R. R. Janati, PA Bureau of Radiological Protection (w/attachments and enclosure)

A001

COMMONWEALTH OF PENNSYLVANIA :

: ss.

COUNTY OF CHESTER :

W. H. Smith, III, being first duly sworn, deposes and says: That he is Vice President of PECO Energy Company, the Applicant herein; that he has read the foregoing Technical Specifications Change Request No. 94-02-0, "Hydrogen and Oxygen Calibration Gas Concentrations," 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.

Vice President

Subscribed and sworn to
before me this 1st day
of March 1995.

Notary Public

Notarial Seal
Erica A. Santon, Notary Public
Tredyffrin Twp., Chester County
My Commission Expires July 10, 1995

ATTACHMENT 1

LIMERICK GENERATING STATION

UNITS 1 AND 2

Docket Nos. 50-352
50-353

License Nos. NPF-39
NPF-85

TECHNICAL SPECIFICATIONS CHANGE REQUEST

No. 94-02-0

"Hydrogen and Oxygen Calibration Gas Concentrations"

Supporting Information for Changes - 3 Pages

PECO Energy Company, Licensee under Facility Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2, respectively, requests that the Technical Specifications (TS) contained in Appendix A to the Operating Licenses be amended as proposed herein, to delete part a. and revise part b. of Notes * and # on Table 4.3.7.5-1 involving Drywell Hydrogen and Oxygen (H_2/O_2) Concentration Analyzers. The proposed changes to the TS are indicated by a vertical bar in the margin of TS page 3/4 3-87 for Units 1 and 2. The TS pages showing the proposed changes are contained in Attachment 2.

We request that, if approved, the TS changes proposed herein be issued by September 1, 1995 and become effective within 30 days of issuance of the amendments.

This TS Change Request provides a discussion and description of the proposed TS changes, a safety assessment of the proposed TS changes, information supporting a finding of No Significant Hazards Consideration, and Information Supporting an Environmental Assessment.

Discussion and Description of the Proposed Changes

These proposed TS changes will clarify the concentrations of calibration gas required to calibrate the H_2/O_2 Analyzers, and support the requirements of LGS Transient Response Implementation Plan (TRIP) T-102, "Primary Containment Control Bases." The current documented method of zero calibration is being deleted. The span gas concentration is being revised from 5% to 7% to support the requirements of TRIP T-102 which requires the operator to determine if the Drywell or Suppression Pool H_2 concentration is AT OR ABOVE 6%. The concern with H_2 concentration is related to the Post-Loss-Of-Coolant-Accident (LOCA) H_2 Recombiners, because at above 6% concentration the Recombiner may be an ignition source as stated in the TRIP procedure Bases.

This TS Change Request involves the removal of Notes *.a and #.a and revises Notes *.b and #.b on TS Table 4.3.7.5-1.

Safety Assessment

The H_2/O_2 Analyzers provide indication of the concentrations of combustible gases in the primary containment and provide annunciation when combustible gas concentrations reach unacceptable levels. These Technical Specifications (TS) changes will clarify several discrepancies and ambiguities regarding the H_2 and O_2 Analyzers as described in the LGS Updated Final Safety Analysis Report (UFSAR) and TS.

Adding clarification to the UFSAR and TS to specify that the H_2/O_2 Analyzers are calibrated to provide accurate indication of H_2 and O_2 concentrations in the range of 0% to 7% does not negatively impact the accuracies of the analyzers or the atmosphere in the primary containment. Calibration of the 0% to 7% range will be reflected in both TS Table 4.3.7.5-1 and UFSAR Sections 6.2.5.2.2, 6.2.5.4, and 7.5.1.4.2.1.4. The analyzers will display accurate readings only within the range of the span gas used. Furthermore, calibration of only the 0% to 7% ranges is acceptable since the postulated maximum Post-LOCA containment H_2 and O_2 concentrations, per UFSAR Figures 6.2-43 and 6.2-45, are less than 5%.

A calibration gas containing 0% H_2 (or O_2) and 100% bottled Nitrogen (N_2) is not required for calibration of the analyzers to the required accuracy. Zero calibration is achieved by valving out the reagent gas. This results in the comparing of the same sample gas, resulting in a 0% difference in concentration. The zero concentration values are calibrated to the required accuracy using a comparison of thermal conductivities of two samples of the same span gas without a reagent gas for recombination. Calibration of the H_2/O_2 Analyzers are done in accordance with the manufacturer's instructions.

Information Supporting a Finding of No Significant Hazards Consideration

We have concluded that the proposed changes to the Limerick Generating Station (LGS), Unit 1 and Unit 2, Technical Specifications (TS), which remove and revise Notes on TS Table 4.3.7.5-1 to clarify several discrepancies and ambiguities, do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) 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.

   The proposed TS changes remove calibration of the H_2/O_2 Analyzers using zero volume percent hydrogen (H_2) and 100% bottled Nitrogen (N_2). A calibration gas containing zero volume percent H_2 and 100% bottled N_2 is not required for calibration of the analyzers to the required accuracy. Calibration of the H_2/O_2 Analyzers is done in accordance with the manufacturer's instructions. The proposed TS changes also revise the span gas concentration from 5% to 7% to support the requirements of TRIP T-102. The H_2/O_2 Analyzers provide indication of the concentrations of combustible gases in the primary containment and provide annunciation when combustible gas concentrations reach unacceptable levels. Failure of the analyzers is not an accident initiator. The analyzers do not connect to the reactor coolant pressure boundary; therefore,they do not increase the probability of a LOCA. The proposed TS changes do not involve any design changes to analyzers. Therefore, these TS changes will not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The H_2/O_2 Analyzers provide indication and alarms for H_2 and O_2 concentrations in containment. No physical or design changes to the analyzers are being made by these TS changes. During normal operations, the potential for an explosive atmosphere is negligible due to the absence of H_2 sources. For Post-LOCA, conditions the levels of H_2 and O_2 in containment have already been evaluated in LGS UFSAR Section 6.2.5. No physical or design changes which could introduce a new analyzer failure mode are being made. The failure modes of the analyzers are evaluated in UFSAR Table 6.2-21. Therefore, these TS changes will not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   These TS changes will clarify statements in the LGS UFSAR and TS concerning calibrated ranges of the analyzers. The change of the span gas from 5% to 7% falls within conditions previously analyzed. The Bases for TS 3/4.3.7.5 and 3/4.6.6 require operable H_2/O_2 Analyzers to ensure the analyzers will be available for monitoring, assessing and controlling H_2 and O_2 levels in containment following a LOCA. These TS changes do not adversely affect operability of the analyzers or their availability for use during Post-LOCA conditions; therefore, the margin of safety is not reduced.

Information Supporting an Environmental Assessment

An Environmental Assessment is not required for the Technical Specifications changes proposed by this Change Request because the requested changes to the Limerick Generating Station, Units 1 and 2, TS conform to the criteria for "actions eligible for categorical exclusion," as specified in 10CFR51.22(c)(9). The requested changes will have no impact on the environment. The proposed TS changes do not involve a Significant Hazards Consideration as discussed in the preceding 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 offsite. 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, Units 1 and 2, Technical Specifications, and have concluded that they do not involve an unreviewed safety question.