



PECO ENERGY

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

September 16, 1994

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. 94-50-0

Gentlemen:

PECO Energy Company is submitting Technical Specifications (TS) Change Request No. 94-50-0, in accordance with 10 CFR 50.90, requesting an amendment to the TS (Appendix A) of Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2, respectively. This proposed TS change involves revising TS Surveillance Requirement (SR) 4.7.4.e, and the associated Bases Section 3/4.7.4, to extend the snubber functional testing interval from 18-months ( $\pm 25\%$ ) to 24-months ( $\pm 25\%$ ), and to increase the sample plan size as described in SR 4.7.4.e.1 from 10% to 13.3%.

By letter dated March 3, 1992, we submitted TS Change Request No. 91-04-0 requesting changes to the snubber functional testing requirements defined in TS SR 4.7.4.a to incorporate the recommendations contained in the American Society of Mechanical Engineers (ASME) Operations and Maintenance (OM) standard for snubber testing, i.e., "ASME/ANSI OM-1990 Addenda to ASME/ANSI OM-1987, Part 4, "Examination and Performance Testing of Nuclear Power Plant Dynamic Restraints (Snubbers)." Included as part of our March 3, 1992 submittal, was a request to change the snubber functional testing interval from 18-months ( $\pm 25\%$ ) to 24-months ( $\pm 25\%$ ) to accommodate a 24-month fuel cycle at LGS, Units 1 and 2. Subsequently, by letter dated May 11, 1992, the NRC approved a majority of the changes to TS SR 4.7.4.e requested in TS Change Request 91-04-0 (i.e., Amendment Nos. 54 and 19). However, the NRC did not approve the requested change to extend the snubber functional testing interval from 18 to 24 months ( $\pm 25\%$ ), since adequate justification was not provided to support increasing the testing interval. The NRC indicated that the reasonable expected service life for snubbers, particularly those exposed to harsh environments, is 15 years and that increasing the testing interval from 18 to 24 months ( $\pm 25\%$ ), without proportionally increasing the sample plan size, would not ensure that the entire population of snubbers would be tested in a 15-year period. The NRC suggested that one way of maintaining the 15-year testing cycle, when increasing the testing interval period, would be to increase the sample plan size. The NRC indicated that if the testing interval is being increased from 18 to 24 months ( $\pm 25\%$ ), an increase in the initial sample size by one-third ( $1/3$ ) from 10% to 13.3% would maintain the 15-year cycle.

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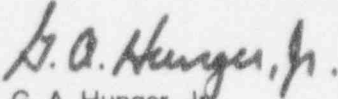
Therefore, we are submitting TS Change Request 94-50-0 to extend the snubber functional testing interval from 18-months ( $\pm 25\%$ ) to 24-months ( $\pm 25\%$ ) in conjunction with increasing the initial representative sample plan size described in Section 4.7.4.e.1 from 10% to 13.1%, as recommended by the NRC, in order to accommodate a 24-month fuel cycle.

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

We request that, if approved, the amendments to the LGS, Units 1 and 2, TS be issued November 4, 1994, and become effective immediately upon issuance of the amendments.

If you have any questions or require additional information, please do not hesitate to contact us.

Very truly yours,



G. A. Hunger, Jr.  
Director - Licensing

Attachments  
Enclosure

cc: T. T. Martin, Administrator, Region I, USNRC (w/ attachments, enclosure)  
N. S. Perry, USNRC Senior Resident Inspector, LGS (w/ attachments, enclosure)  
R. R. Janati, Director, PA Bureau of Radiological Protection (w/ attachments, enclosure)

COMMONWEALTH OF PENNSYLVANIA

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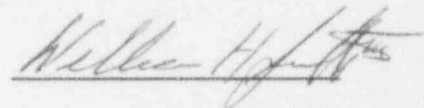
ss.

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. 94-50-0 for Limerick Generating Station, Units 1 and 2, Facility Operating License Nos. NPF-39 and NPF-85, to 1) extend the snubber functional testing interval from 18 to 24 months ( $\pm 25\%$ ), and 2) increase the initial representative sample size for snubber testing from 10% to 13.3%, 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.

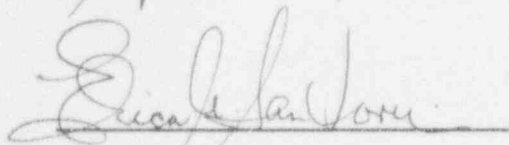


Vice President

Subscribed and sworn to

before me this 15<sup>th</sup> day

of September, 1994.



Notary Public

Notarial Seal  
Erica A. Santori, 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. 94-50-0**

**"Revise the Technical Specifications Surveillance Requirements to  
Increase Snubber Functional Testing Interval from 18-Months to 24-Months**

**Supporting Information for Changes - 4 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 revise TS Surveillance Requirement (SR) 4.7.4.e, and associated Bases Section 3/4.7.4, to extend the snubber functional testing interval from 18-months ( $\pm 25\%$ ) to 24-months ( $\pm 25\%$ ), and to increase the initial representative sample plan size as described in Section 4.7.4.e.1 from 10% to 13.3%. The proposed change to the TS SR is indicated by a vertical bar in the margin of TS page 3/4 7-13 and Bases page B 3/4 7-3 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 November 4, 1994, and become effective immediately upon 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

Currently, Limerick Generating Station (LGS), Units 1 and 2, Technical Specifications (TS) Surveillance Requirement (SR) 4.7.4.e requires that at least every 18 months a representative sample of each type of snubber shall be tested using either sample plan described in Sections 4.7.4.e.1 (i.e., 10% Plan) or 4.7.4.e.2 (i.e., 37 Plan). These two (2) snubber sampling plans are used at LGS to determine the initial population of snubbers or compensating struts that will be functionally tested during a particular interval.

Previously, by letter dated March 3, 1992, we submitted TS Change Request No. 91-04-0 requesting changes to the snubber functional testing requirements defined in TS SR 4.7.4.e to incorporate the recommendations delineated in the American Society of Mechanical Engineers (ASME) Operations and Maintenance (OM) standard for snubber testing, i.e., "ASME/ANSI OM-1990 Addenda to ASME/ANSI OM-1987, Part 4, "Examination and Performance Testing of Nuclear Power Plant Dynamic Restraints (Snubbers)." Included as part of our March 3, 1992 submittal, was a request to extend the snubber functional testing interval from 18-months ( $\pm 25\%$ ) to 24-months ( $\pm 25\%$ ) to accommodate a 24-month fuel cycle at LGS, Units 1 and 2. Subsequently, by letter dated May 11, 1992, the NRC approved a majority of the changes to TS SR 4.7.4.e requested in TS Change Request 91-04-0 (i.e., Amendment Nos. 54 and 19) regarding the snubber functional testing requirements. However, the NRC did not approve the requested change to increase the snubber functional testing interval from 18 to 24 months ( $\pm 25\%$ ), since adequate justification was not provided to support this increasing the testing interval. The NRC indicated that the reasonable expected service life for snubbers, particularly those exposed to harsh environments, is 15 years and that increasing the testing interval from 18 to 24 months ( $\pm 25\%$ ), without proportionally increasing the sample plan size, would not ensure that the entire population of snubbers would be tested in a 15-year period. The NRC suggested that one way of maintaining the 15-year testing cycle, when increasing the testing interval period, would be to increase the size of the sample population. The NRC indicated that if the testing interval is being increased from 18 to 24 months ( $\pm 25\%$ ), an increase in the initial sample size of one-third ( $1/3$ ) from 10% to 13.3% would maintain the 15-year cycle.

This proposed TS change involves revising TS SR 4.7.4.e, and associated Bases Section 3/4.7.4, to extend the snubber functional testing interval from 18-months ( $\pm 25\%$ ) to 24-months ( $\pm 25\%$ ) in conjunction with increasing the initial representative sample plan size described in 4.7.4.e.1 from 10% to 13.3%, as recommended by the NRC, in order to accommodate a 24-month fuel cycle. This proposed TS change will not modify the requirements for the sample plan described in Section 4.7.4.e.2 (i.e., 37 Plan).

#### Safety Assessment

Snubbers are installed on piping systems and components at Limerick Generating Station (LGS), Units 1 and 2, to mitigate the effects of earthquakes and other dynamic transients, but are not used to mitigate the direct effects of a Loss of Coolant Accident (LOCA) or any pipe break accident. Snubbers permit the slow movement of piping and components during heat-up and cool-down and provide rigid restraint during seismic or other dynamic events. The following events (accidents) may be considered as producing loads that could affect snubbers.

- o Seismic Events
  - o Operational Basis Earthquake
  - o Safe Shutdown Earthquake
- o Safety Relief Valve Lift
- o Main Turbine Trip (Stop Valve Closure)
- o Loss of Coolant Induced Loads
  - o Pool Swell
  - o Chugging
  - o Condensation Oscillation
  - o Drag Loads
  - o Annulus Pressurization

The LGS, Units 1 and 2, TS require that at least every 18 months a representative sample of each type of snubber shall be tested using either sample plan described in Sections 4.7.4.e.1 (i.e., 10% Plan) or 4.7.4.e.2 (i.e., 37 Plan). The current snubber functional testing requirements were established as a result of the NRC approving changes previously requested (i.e., TS Change Request No. 91-04-0), and as documented in an NRC letter dated May 11, 1992, issuing Amendment Nos. 54 and 19 to Facility Operating License Nos. NPF-39 and NPF-85 for LGS, Units 1 and 2, respectively.

The 10% sample plan is used for smaller sample populations (i.e., less than approximately 400 snubbers) and will be primarily used for Failure Mode Grouping (FMG) rather than testing of the general population. At LGS, this plan is used for selecting the initial representative sample size of compensating struts that will be functionally tested during a particular interval.

The 37 plan (i.e., TS SR 4.7.4.e.2) uses TS Figure 4.7.4-1 to determine the need to continue testing. This sample plan is the method used at LGS for selecting the sample population of snubbers that will be functionally tested during a particular interval. This proposed TS change will not modify the requirements specified in TS SR 4.7.4.e.2.



This proposed TS change involves revising TS SR 4.7.4.e to extend the snubber functional testing interval from 18 to 24 months ( $\pm 25\%$ ) along with increasing the sample size described in Section 4.7.4.e.1 from 10% to 13.3%. The proposed change in the representative sample size (i.e., 10% to 13.3%) is being implemented in accordance with the NRC's recommendation as documented in its letter dated May 11, 1992, and supporting Safety Evaluation Report (SER), issuing Amendment Nos. 54 and 19 to Facility Operating License Nos. NPF-39 and NPF-85 for LGS, Units 1 and 2, respectively. Increasing the sample size, as recommended by the NRC, would ensure that the entire population of snubbers would be tested within a 15-year period.

Extending the functional testing interval from 18 months to 24 months ( $\pm 25\%$ ) in conjunction with increasing the number of snubbers tested in the initial 10% sample plan to 13.3%, as proposed, will continue to maintain the same test scope ratio that currently exists. This will ensure that all of the snubbers of a given type will be tested within a 15-year period.

#### Information Supporting a Finding of No Significant Hazards Consideration

We have concluded that the proposed changes to Limerick Generating Station (LGS), Units 1 and 2, Technical Specifications (TS) Surveillance Requirement (SR) 4.7.4.e to extend the snubber functional testing interval from 18 to 24 months ( $\pm 25\%$ ), and to increase the representative sample size as described in Section 4.7.4.e.1 from 10% to 13.3%, does 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 Technical Specifications (TS) changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed TS changes do not require any modifications to plant systems, snubbers, or other plant equipment. The snubbers will continue to function as designed to mitigate the effects of earthquakes and other dynamic transients (e.g., main turbine trip). Extending the snubber functional testing interval from 18 months to 24 months ( $\pm 25\%$ ) and increasing the initial sample size from 10% to 13.3%, as proposed, will continue to maintain the same test scope ratio as that which currently exists (i.e. 1.5 yr./interval @ 10% snubbers/interval and 2 yr./interval @ 13.3% snubbers/interval results in approximately 100% of all snubbers of a given type being tested within 15 years). The proposed TS change will only affect the interval between functional tests and the initial sample size population. As previously stated, LGS currently uses the 10% plan for compensating struts only, and since there are less than 10 struts per Unit, this proposed change will have a negligible impact on the number of struts in the initial sample size to be tested during a particular interval (i.e., each refueling outage). All systems and equipment important to safety that rely on snubbers will continue to function as designed.

Therefore, the proposed TS changes do not involve an 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 proposed TS changes do not involve any physical changes to plant systems or equipment. The snubbers will continue to function as designed to mitigate the effects of earthquakes and other dynamic transients (e.g., main turbine trip). Snubbers are not accident initiators, and function to mitigate the effects of an accident. The snubbers will continue to protect piping and equipment during dynamic events. Extending the snubber functional testing interval from 18 months to 24 months ( $\pm 25\%$ ) and increasing the initial sample size from 10% to 13.3%, as proposed, will continue to maintain the same test scope ratio as that which currently exists in the TS. The proposed TS changes will continue to ensure that approximately 100% of the snubbers of a given type are tested within a 15-year period.

Therefore, the proposed TS changes do 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.

The bases for the TS require that all snubbers whose failure could have an adverse effect on any safety-related systems, be operable. This ensures that the structural integrity of the reactor coolant system and other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads. The bases also discuss clarification and grouping of the general snubber population, snubber listing requirements, visual inspection frequency, and visual acceptance criteria. The proposed TS changes will provide for the same confidence level as that which currently exists in TS for determining snubber operability. The proposed TS changes will continue to maintain the same test scope ratio as that currently provided in the TS. The 10% plan is used at LGS for compensating struts only, and increasing initial sample size to 13.3%, as proposed, will have a negligible effect on the number of struts functionally tested during each interval. No other aspects of the bases associated with snubber surveillance will be affected by these proposed TS changes.

Therefore, the proposed TS changes do not involve a reduction in a margin of safety.

#### Information Supporting an Environmental Assessment

An Environmental Assessment is not required for the changes proposed by this Change Request because the requested changes to the LGS, Units 1 and 2, TS conform to the criteria for "actions eligible for categorical exclusion," as specified in 10 CFR 51.22(c)(9). The requested changes will have no impact on the environment. The proposed 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 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 the proposed changes to the LGS, Units 1 and 2, TS and have concluded that they do not involve an unreviewed safety question, and will not endanger the health and safety of the public.