



PECO NUCLEAR

A UNIT OF PECO ENERGY

Station Support Department

10CFR50.90

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

August 5, 1996

Docket No. 50-353

License No. NPF-85

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

Subject: Limerick Generating Station, Unit 2
Technical Specifications Change Request No. 96-18-2

Gentlemen:

PECO Energy Company is submitting Technical Specifications (TS) Change Request No. 96-18-2, in accordance with 10CFR 50.90, requesting an amendment to the TS (Appendix A) of Operating License No. NPF 85 for Limerick Generating Station (LGS), Unit 2. This proposed change will revise TS Section 2.1, "Safety Limits," to revise the Minimum Critical Power Ratio (MCPR) Safety Limit. Information supporting this Change Request is contained in Attachment 1 to this letter, and the marked up pages showing the proposed change to the LGS Unit 2 TS are contained in Attachment 2. This information is being submitted under affirmation, and the required affidavit is enclosed.

Attachment 3, Letter R. M. Butrovich (GE) to H. J. Diamond (PECO), "Limerick Unit 2 Safety Limit MCPR Revision", dated July 7, 1996 specifies the new MCPR Safety Limit for LGS Unit 2, Cycle 4.

Since the new MCPR Safety Limit applies to the current operating cycle at LGS Unit 2 we request that, if approved, the TS change proposed herein be issued as soon as possible 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.,
Director - Licensing

Enclosure, Attachments

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

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COMMONWEALTH OF PENNSYLVANIA :

: SS.

COUNTY OF CHESTER :

D. B. Fellers, 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 Application for Amendment of Facility Operating License No. NPF-85 (Technical Specifications Change Request 96-18-2), to change the Minimum Critical Power Ratio (MCPR) Safety Limit at Limerick Generating Station, Unit 2, 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.

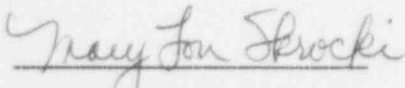


Vice President

Subscribed and sworn to

before me this ^{5th} day

of August 1996.



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

UNIT 2

DOCKET NO. 50-353

LICENSE NO. NPF-85

TECHNICAL SPECIFICATIONS CHANGE REQUEST

NO. 96-18-2

Supporting Information for Changes - 3 Pages

"MINIMUM CRITICAL POWER RATIO (MCPR)
SAFETY LIMIT REVISION"

PECO Energy Company, under Facility Operating License No. NPF-85 for Limerick Generating Station (LGS), Unit 2, requests that the Technical Specifications (TS) contained in Appendix A to the Operating License be amended as proposed herein, to revise TS Section 2.1 and its associated TS Basis to reflect the change in the Minimum Critical Power Ratio (MCPR) Safety Limit due to the plant specific evaluation performed by General Electric Co. (GE), for LGS Unit 2 Cycle 4. The proposed change to the LGS Unit 2 TS is indicated by markups on TS page 2-1 and TS Bases page B 2-1. The TS page and TS Bases page showing the proposed change are contained in Attachment 2.

Attachment 3, Letter R. M. Butrovich (GE) to H. J. Diamond (PECO Energy), "Limerick Unit 2 Safety Limit MCPR Revision", dated July 7, 1996 specifies the new MCPR Safety Limit for LGS Unit 2, Cycle 4.

Since the new MCPR Safety Limit applies to the current operating cycle at LGS Unit 2 we request that, if approved, the TS change proposed herein be issued as soon as possible and become effective within 30 days of issuance.

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

Discussion and Description of the Proposed Change

The proposed Technical Specifications (TS) Change Request involves the change of Limerick Generating Station (LGS), Unit 2, TS Section 2.1 and its associated TS Basis to revise the Minimum Critical Power Ratio (MCPR) Safety Limit. PECO Energy committed to make this change as documented in our letter to the NRC, dated June 25, 1996. Currently, the new MCPR Safety Limit is administratively controlled at LGS Unit 2 and we need to revise the TS to reflect the new value.

Attachment 3, Letter R. M. Butrovich (GE) to H. J. Diamond (PECO Energy), "Limerick Unit 2 Safety Limit MCPR Revision," dated July 7, 1996 specifies the new MCPR Safety Limit for LGS Unit 2, Cycle 4. The MCPR Safety Limit is set high enough to ensure that greater than 99.9% of all fuel rods in the core are expected to avoid transition boiling if the limit is not violated. The MCPR Safety Limit incorporates margin for uncertainty in the core operating state and for uncertainties which are dependent on fuel type, including fuel bundle nuclear characteristics, critical power correlation, and manufacturing tolerances. The results of the GE analysis for LGS Unit 2 Cycle 4 show a MCPR Safety Limit of 1.10 for two loop operation and 1.11 for single loop operation, respectively. However, in anticipation of LGS Unit 2 Cycle 5, we are proposing a MCPR Safety Limit of 1.10 for operation with two recirculation loops and 1.12 for single loop operation. The value of 1.10 for two loop operation is estimated to remain the same for Cycle 5 and the estimated value of 1.12 for single loop operation is bounded conservatively by the 1.11 value specified in Attachment 3.

Therefore, we propose that LGS Unit 2 TS Section 2.1 and TS Bases 2.1 be revised to reflect the change in the Minimum Critical Power Ratio (MCPR) Safety Limit, for the current operating cycle.

Safety Assessment

The proposed TS change will revise TS Section 2.1 and its associated TS Basis to reflect the change in the Minimum Critical Power Ratio (MCPR) Safety Limit, due to the plant specific evaluation performed by General Electric Co. (GE), for LGS Unit 2 Cycle 4.

The new MCPR Safety Limit is calculated using NRC-approved methods. The MCPR Safety Limit is set high enough to ensure that greater than 99.9% of all fuel rods in the core avoid transition boiling if the limit is not violated. The MCPR Safety Limit incorporates margin for uncertainty in the core operating state and for uncertainties which are dependent on fuel type, including fuel bundle nuclear characteristics, critical power correlation, and manufacturing tolerances. The new MCPR Safety Limit at LGS Unit 2 is 1.10 for operation with two recirculation loops and 1.12 for single loop operation.

Information Supporting a Finding of No Significant Hazards Consideration

We have concluded that the proposed change to the Limerick Generating Station (LGS), Unit 2 Technical Specifications (TS) which will revise TS Section 2.1, "Safety Limits," and its associated TS Basis to change the Minimum Critical Power Ratio (MCPR) Safety Limit, 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) change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The revised Minimum Critical Power Ratio (MCPR) Safety Limit for LGS Unit 2 Technical Specifications, and its use to determine cycle-specific thermal limits have been performed using NRC-approved methods within the existing design and licensing basis, and cannot increase the probability or severity of an accident.

The basis of the MCPR Safety Limit calculation is to ensure that greater than 99.9% of all fuel rods in the core avoid transition boiling if the limit is not violated. The new MCPR Safety Limit preserves the existing margin to transition boiling and fuel damage in the event of a postulated accident. The probability of fuel damage is not increased.

Therefore, the proposed TS change does not involve an increase in the probability or consequences of an accident previously evaluated.

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

The MCPR Safety Limit is a Technical Specification numerical value, designed to ensure that fuel damage from transition boiling does not occur as a result of the limiting postulated accident. It cannot create the possibility of any new type of accident. The new Minimum Critical Power Ratio (MCPR) Safety Limit is calculated using NRC-approved methods and is based on LGS Unit 2 Cycle 4 specific inputs.

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

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

The margin of safety as defined in the TS Bases will remain the same. The new Minimum Critical Power Ratio (MCPR) Safety Limit is calculated using NRC approved methods which are in accordance with the current fuel design and licensing criteria. The MCPR Safety Limit remains high enough to ensure that greater than 99.9% of all fuel rods in the core will avoid transition boiling if the limit is not violated, thereby preserving the fuel cladding integrity.

Therefore, the proposed TS change does not involve a reduction in a margin of safety.

Information Supporting an Environmental Assessment

An environmental assessment is not required for the change proposed by this TS Change Request because the requested change to the Limerick Generating Station (LGS), Unit 2, TS conforms to the criteria for "actions eligible for categorical exclusion" as specified in 10 CFR51.22(c)(9). The requested 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 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.

Conclusion

The Plant Operations Review Committee and the Nuclear Review Board have reviewed this proposed change to the Limerick Generating Station (LGS), Unit 2, TS and have concluded that it does not involve an unreviewed safety question, and will not endanger the health and safety of the public.