

**PECO NUCLEAR**

A UNIT OF PECO ENERGY

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

March 25, 1996

Docket Nos. 50-277
50-278License Nos. DPR-44
DPR-56U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555Subject: Peach Bottom Atomic Power Station, Units 2 and 3
License Change Request No. 96-01

Dear Sir:

PECO Energy Company (PECO Energy) hereby submits License Change Request No. 96-01, in accordance with 10 CFR 50.90, requesting changes to the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3 Facility Operating Licenses. The proposed changes will revise Technical Specifications (TS) Section 2.0, "Safety Limits." This Section will be revised to incorporate new Safety Limit Minimum Critical Power Ratios (SLMCPRs) due to the use of the GE13 fuel product line.

Attachment 1 to this letter describes the proposed Technical Specifications changes, and provides justification for these changes. Attachment 2 contains the revised Technical Specifications pages. Attachment 3 (Letter from R. M. Butrovich (GE Nuclear Energy) to H. J. Diamond (PECO Energy), "GE13 Single Loop Operation SLMCPR," dated June 12, 1995) specifies the new SLMCPRs for PBAPS, Units 2 and 3.

We request that the amendment be approved by August 1, 1996 for PBAPS, Units 2 and 3. For PBAPS, Unit 2, we request that the amendment be made effective prior to the restart from the PBAPS, Unit 2 outage currently scheduled to begin September, 1996. For PBAPS, Unit 3, we request that the amendment be made effective prior to the restart from the PBAPS, Unit 3 outage currently scheduled to begin September, 1997.

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

Very truly yours,

G. A. Hunger, Jr.,
Director - Licensing

Enclosures: Affidavit, Attachment 1, Attachment 2

cc: T. T. Martin, Administrator, Region I, USNRC
W. L. Schmidt, USNRC Senior Resident Inspector, PBAPS
R. R. Janati, Commonwealth of Pennsylvania

COMMONWEALTH OF PENNSYLVANIA

:

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ss.

COUNTY OF CHESTER

:

D. B. Fetters, being first duly sworn, deposes and says:

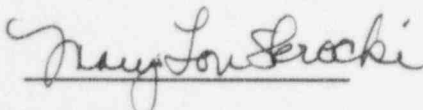
That he is Vice President of PECO Energy Company; the Applicant herein; that he has read the attached License Change Request (Number 96-01) for Peach Bottom Facility Operating Licenses DPR-44 and DPR-56, and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.



Vice President

Subscribed and sworn to

before me this 23rd day
of March 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

PEACH BOTTOM ATOMIC POWER STATION
UNITS 2 AND 3

Docket Nos. 50-277
50-278

License Nos. DPR-44
DPR-56

LICENSE CHANGE REQUEST
No. 96-01

"Revision of SLMCPRs for GE13 fuel"

Supporting Information - 3 Pages

Introduction

PECO Energy Company, Licensee under Facility Operating Licenses DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, requests that the Technical Specifications (TS) contained in Appendix A to the Operating License be amended to revise TS Section 2.1 to reflect the change in the Safety Limit Minimum Critical Power Ratios (SLMCPRs) due to the use of the GE13 fuel product line. The TS pages showing the proposed changes are contained in Attachment 2. Attachment 3 (Letter from R. M. Butrovich (GE Nuclear Energy) to H. J. Diamond (PECO Energy), "GE13 Single Loop Operation SLMCPR," dated June 12, 1995) specifies the new SLMCPRs for PBAPS, Units 2 and 3. This License 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 Change

The proposed License Change Request involves the change of PBAPS, Units 2 and 3 TS Section 2.1 to revise the SLMCPRs due to the use of the GE13 fuel product line.

The GE13 fuel product line has been developed in order to provide fuel with improved critical power performance and fuel cycle economics. The primary differences between the new GE13 fuel design and the GE11 fuel design are as follows:

- 1) The part-length fuel rods in the GE13 fuel are twelve inches longer than those of GE11;
- 2) GE13 has one more fuel pin spacer than GE11; and
- 3) A GE13 bundle has a mass approximately two kilograms greater than GE11.

The GE13 fuel product line is compatible with the co-resident fuel in the PBAPS, Units 2 and 3 reactor cores, reactor pressure vessel internals, spent fuel pool internals, refueling apparatus, and other plant systems. The thermal-mechanical, nuclear, and thermal-hydraulic behavior of the GE13 fuel design during steady-state, transient, and accident conditions in the reactor core complies with the existing fuel licensing criteria as discussed in NEDE-32198P, "GE13 Compliance With Amendment 22 of NEDE-24011-P-A (GESTAR II)," dated December 1993.

The GE13 fuel product line has different SLMCPRs than the fuel designs previously utilized at PBAPS. Attachment 3 (Letter from R. M. Butrovich (GE Nuclear Energy) to H. J. Diamond (PECO Energy), "GE13 Single Loop Operation SLMCPR," dated June 12, 1995) specifies the new SLMCPRs for PBAPS, Units 2 and 3. The SLMCPRs are 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 SLMCPRs incorporate 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 SLMCPRs resulting from these analyses are 1.09 for operation with two recirculation loops and 1.11 for single loop operation, as stated in Attachment 3 to this letter.

Therefore, we propose that PBAPS, Units 2 and 3 TS Section 2.1 be revised to reflect the change in the SLMCPRs due to the use of the GE13 fuel product line.

Safety Assessment

The proposed License Change Request will revise TS Section 2.1 to reflect the change in the SLMCPRs due to the use of the GE13 fuel. The GE13 fuel product line has different SLMCPRs than the fuel designs previously utilized at PBAPS. The new SLMCPRs for the GE13 fuel are calculated using USNRC-approved methods and have the same calculational basis as the SLMCPRs for other GE fuel designs previously used at PBAPS, Units 2 and 3. The methodology for the calculation of the SLMCPR for single loop operation is contained in NEDO-24229-1, "Peach Bottom Atomic Power Station Units 2 and 3 Single-Loop Operation," dated May 1980. This report was forwarded to you by GE Nuclear Energy in a letter dated December 18, 1995. The SLMCPRs are 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 SLMCPRs incorporate 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 SLMCPRs resulting from these analyses are 1.09 for operation with two recirculation loops and 1.11 for single loop operation at PBAPS, Units 2 and 3.

Information Supporting a Finding of No Significant Hazards Consideration

We have concluded that the proposed changes to the PBAPS, Units 2 and 3 TS which will revise TS Section 2.1 to change the SLMCPRs due to the use of the GE13 fuel product line, 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 derivation of the revised GE13 SLMCPRs for incorporation into the TS, and its use to determine cycle-specific thermal limits, have been performed using USNRC-approved methods within the existing fuel licensing criteria as discussed in NEDE-32198P, "GE13 Compliance With Amendment 22 of NEDE-24011-P-A (GESTAR II)," and cannot increase the probability or severity of an accident.

The basis of the SLMCPRs calculation is to ensure that greater than 99.9% of all fuel rods in the core avoid boiling transition if the limit is not violated. The new SLMCPRs preserve the existing margin to transition boiling and fuel damage in the event of a postulated accident. The fuel licensing acceptance criteria for the SLMCPRs calculation apply to the GE13 fuel in the same manner that they have applied to previous fuel designs. The probability of fuel damage is not increased. 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 SLMCPR for the GE13 fuel design is a Technical Specification numerical value, designed to ensure that transition boiling does not occur in 99.9% of all fuel rods in the core during the limiting postulated accident. It cannot create the possibility of any new type of accident. The

new SLMCPRs are calculated using USNRC-approved methods and have the same calculational basis as the SLMCPR for other GE fuel designs previously used at PBAPS, Units 2 and 3. 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 margin of safety as defined in the TS Bases will remain the same. The new SLMCPRs are calculated using USNRC-approved methods which are in accordance with the current fuel licensing criteria. The SLMCPRs for the GE13 fuel remain high enough to ensure that greater than 99.9% of all fuel rods in the core will avoid boiling transition if the limit is not violated, thereby preserving the fuel cladding integrity. 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 proposed changes since the proposed changes conform 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 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 effluents that may be released offsite. In addition, the proposed changes 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 these proposed changes to the PBAPS, Units 2 and 3 TS and have concluded that they do not involve an unreviewed safety question, and will not endanger the health and safety of the public.

ATTACHMENT 2

PEACH BOTTOM ATOMIC POWER STATION
UNITS 2 AND 3

Docket Nos. 50-277
50-278

License Nos. DPR-44
DPR-56

TECHNICAL SPECIFICATIONS' CHANGES

List of Attached Pages

Units 2 and 3

TS Page 2.0-1