10 CFR 50.90

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

July 12, 1999

Docket No. 50-278

License No. DPR-56

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

Subject: Peach Bottom Atomic Power Station, Unit 3 License Change Application ECR 99-01255

Dear Sir/Madam:

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PDR

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PECO Energy Company (PECO Energy) hereby submits License Change Application ECR 99-01255, in accordance with 10 CFR 50.90, requesting a change to the Peach Bottom Atomic Power Station (PBAPS), Unit 3 Facility Operating License. This proposed change will revise Technical Specifications (TS) TS 2.1.1.2 ("Reactor Core SLs") and Section 5.6.5 ("Core Operating Limits Report"). These Sections will be revised to: 1) incorporate revised Safety Limit Minimum Critical Power Ratios (SLMCPRs) due to the use of cycle specific analysis performed by General Electric Nuclear Energy (GENE) for PBAPS, Unit 3, Cycle 13, 2) delete previously added footnotes which are no longer necessary, and 3) update a reference contained in TS 5.6.5.b.2 which documents an analytical method used to determine the core operating limits.

Information supporting this request is contained in Attachment 1 to this letter, and the proposed pages (including marked up pages) to the PBAPS, Unit 3 TS are contained in Attachment 2. Attachment 3 ("Additional Information Regarding the Cycle Specific SLMCPR for Peach Bottom 3 Cycle 13," dated June 9, 1999) specifies the new SLMCPRs for PBAPS, Unit 3. Attachment 3 contains information proprietary to General Electric. General Electric requests that the document be withheld from public disclosure in accordance with 10 CFR 2.790(a)(4). An affidavit supporting this request is also contained in Attachment 3. Attachment 4 contains a non-proprietary version of the General Electric document.

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We request that the amendment to the PBAPS, Unit 3 TS be approved by September 30, 1999, and be made effective prior to the restart from the upcoming PBAPS, Unit 3 refueling outage which is currently scheduled to begin in late September 1999.

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

Very truly yours,

D. C. Helles /FOR

Garrett D. Edwards Director - Licensing

Enclosures: Affidavit, Attachment 1, Attachment 2, Attachment 3, Attachment 4

- cc: H. J. Miller, Administrator, Region I, USNRC
 - A. C. McMurtray, USNRC Senior Resident Inspector, PBAPS
 - R. R. Janati, Commonwealth of Pennsylvania

COMMONWEALTH OF PENNSYLVANIA:

: SS.

COUNTY OF CHESTER

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J. J. Hagan, being first duly sworn, deposes and says:

That he is Senior Vice President, Nuclear Operations of PECO Energy Company; the Applicant herein; that he has read the attached License Change Application ECR 99-01255, for Peach Bottom Facility Operating License 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.

Senior/ Vice President

Subscribed and sworn to

before me this 12th day

of 1999.

Notary Public



ATTACHMENT 1

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PEACH BOTTOM ATOMIC POWER STATION UNIT 3

Docket No. 50-278

License No. DPR-56

LICENSE CHANGE APPLICATION ECR 99-01255

"Revision of SLMCPRs"

Supporting Information - 5 Pages

Docket No. 50-278

License No. DPR-56

Introduction

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This License Change Application 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 changes involve: 1) revising the Safety Limit Minimum Critical Power Ratio (SLMCPR) values contained in TS 2.1.1.2 for two and single loop recirculation, 2) deleting the cycle specific footnote for the SLMCPRs contained in TS 2.1.1.2 ("Reactor Core SLs"), and deleting the footnote associated with TS 5.6.5.b.1 ("Core Operating Limits Report"), and 3) update a reference contained in TS 5.6.5.b.2 which documents an analytical method used to determine the core operating limits.

The SLMCPR is being revised for PBAPS, Unit 3 due to the reload core design for Cycle 13. The SLMCPRs have been determined in accordance with NRC approved methodology described in "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A-13 (GESTAR-II), and U. S. Supplement, NEDE-24011-P-A-13-US, August 1996, and Amendment 25. Amendment 25 provides the methodology for determining the cycle specific MCPR safety limits that replace the former generic fuel type dependent values. Amendment 25 is used for determining the upcoming Cycle 13, and the future SLMCPRs. Future MCPRs determined in accordance with Amendment 25 will not need prior NRC approval for each cycle unless the value changes. The NRC safety evaluation approving Amendment 25 is contained in a letter from the NRC to General Electric, dated March 11, 1999 (F. Akstulewicz (NRC) to G. A. Watford (GE), "Acceptance for Safety Limit MCPR Evaluations; NEDC-32694P, Power Distribution Uncertainties for Safety Limit MCPR Evaluation; and Amendment 25 to NEDE-24011-P-A on Cycle Specific Safety Limit MCPR," (TAC Nos. M97490, M99069 and M97491), dated March 11, 1999).

Prior to the March 11, 1999 NRC evaluation, Amendment 25 was not approved for generic use at each plant, but was approved on a cycle by cycle basis. Therefore, a footnote was added to TS 2.1.1.2 to specify that the approval of the SLMCPR was applicable only for the specific cycle. As a result of the NRC approval of Amendment 25, the footnote to TS 2.1.1.2 can be deleted.

The footnote contained in TS 5.6.5.b.1 can also be deleted as a result of the approval of Amendment 25. TS 5.6.5.b provides the analytical methods used to determine the core operating limits. TS 5.6.5.b.1 references the latest approved General Electric Standard Application for Reactor Fuel. Due to the use of the previously proposed Amendment 25, and the use of a then-proposed R-factor calculation methodology ("R-Factor Calculation Method for GE11, GE12, and GE13 Fuel," NEDC-32505P, Revision 1, June 1997), which was not yet approved for generic use by the NRC, a footnote was added on page 5.0-21 to TS 5.6.5.b.1 which stated that specific documents were approved in the NRC safety evaluation that support the license amondment to revise the SLMCPRs. The R-factor methodology was approved in an NRC safety evaluation dated January 11, 1999 (Thomas H. Essig (NRC) to Glen A. Watford (GE), "Acceptance for Referencing of Licensing Topical Report NEDC-32505P, Revision 1, *R-Factor Calculation Method for GE11, GE12 and GE13 Fuel*," (TAC No. M99070 and M95081), January 11, 1999). As a result of the approval of Amendment 25 and the R-factor calculation methodology, the footnote to TS 5.6.5.b.1 is no longer necessary.

As a part of the proposed changes, a reference contained in TS 5.6.5.b.2 is being updated to reflect a later revision of the analysis. This analysis, and updated revision, is the "Maximum Extended Load Line Limit and ARTS Improvement Program Analysis for Peach Bottom Atomic Power Station Unit 2 and 3," Revision 2, March 1995 (ARTS/MELLLA). TS 5.6.5.b contains the analytical methods used to determine the core operating limits. Revision 1 of the ARTS/MELLLA analysis was updated to Revision 2 to reflect changes in the analysis that were previously approved by the NRC as documented in a safety evaluation report dated August 10, 1994 (Amendment No. 192 for PBAPS, Unit 2). Revising the Technical Specifications to reflect the Revision 2 analysis is an administrative change which will ensure that the references contained in the PBAPS Technical Specifications are accurate and consistent with other licensing documents. No technical changes are being proposed in this request as a result of the update in the revision.

Safety Assessment

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The proposed TS changes will revise TS 2.1.1.2 to reflect the changes in the SLMCPRs due to the cycle specific analysis performed by GENE for PBAPS, Unit 3, Cycle 13. This change also proposes to delete the cycle specific footnote for the SLMCPRs contained in TS 2.1.1.2 ("Reactor Core SLs"), and delete the cycle specific footnote associated with TS 5.6.5.b.1 ("Core Operating Limits Report"). A reference to an analysis contained in TS 5.6.5.b.2 ("Core Operating Limits Report") is also being updated.

The new SLMCPRs are calculated using NRC approved methodology described in "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A-13, and L.S. Supplement, NEDE-24011-P-A-13-US (GESTAR-II), August 1996, and Amendment 25. Amendment 25 is used for determining the upcoming Cycle 13 SLMCPRs. Future MCPRs determined in accordance with Amendment 25 will not need prior NRC approval for each cycle unless a value changes. The NRC evaluation approving Amendment 25 is contained in a letter from the NRC to General Electric, dated March 11, 1999.

The SLMCPRs are 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 violate a. The MCPRs are calculated to include cycle specific parameters which include: 1) the actual core boading (CE11 and GE13 fuel), 2) conservative variations of projected control blade patients, 3) the actual bundle parameters (e.g., local peaking), and 4) the full cycle exposure range. The new SLMCPRs at PBAPS, Unit

3, Cycle 13 are 1.09 (two-loop operation) and 1.11 (single-loop operation) as shown in Attachment 2. Additional information regarding the 1.09 and 1.11 cycle specific SLMCPRs for PBAPS, Unit 3 Cycle 13 is contained in the Attachment 3 letter.

The footnotes associated with TS 2.1.1.2 and TS 5.6.5.b.1 are no longer necessary due to the approval of Amendment 25, and the approval of the R-factor calculation methodology. Therefore, these notes are being deleted.

The Revision 1 ARTS/MELLLA analysis contained in TS 5.6.5.b.2 is being updated to a Revision 2 analysis to reflect changes that were previously approved by the NRC as documented in the safety evaluation report dated August 10, 1994 (Amendment No. 102 for PBAPS, Unit 2). This is an administrative change which will ensure that the references contained in the PBAPS Technical Specifications are accurate and consistent with other licensing documents.

Information Supporting a Finding of No Significant Hazards Consideration

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We have concluded that the proposed changes to the PBAPS, Unit 3 TS, which will revise TS 2.1.1.2, 5.6.5.b.1, and 5.6.5.b.2 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. <u>The proposed TS changes do not involve a significant increase in the probability or</u> consequences of an accident previously evaluated.

The derivation of the cycle specific SLMCPRs for incorporation into the TS, and its use to determine cycle specific thermal limits, has been performed using the methodology discussed in "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A-13, and U.S. Supplement, NEDE-24011-P-A-13-US, August 1996, and Amendment 25. Amendment 25 was approved by the NRC in a March 11, 1999 safety evaluation report. This change in SLMCPRs cannot increase the probability or severity of an accident.

The basis of the SLMCPR 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 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 SLMCPR calculation apply to PBAPS, Unit 3, Cycle 13 in the same manner as they have applied previously. The probability of fuel damage is not increased. Therefore, the proposed TS changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

In addition to the change to the SLMCPR, the footnotes to TS 2.1.1.2 and TS 5.6.5.b.1 are being deleted. The footnote associated with TS 2.1.1.2 was originally included to ensure that the SLMCPR value was only applicable for the identified cycle. The footnote was added to TS 5.6.5.b.1 because Amendment 25 and the R-factor calculation methodology were not yet NRC approved. Amendment 25 and the R-factor methodology have subsequently been approved. Therefore, these footnotes are no longer necessary. The footnotes were for information only, and have no impact on the design or operation of the plant. The deletion of the footnotes associated with TS 2.1.1.2 and

TS 5.6.5.b.1 is an administrative change that does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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The Revision 1 ARTS/MELLLA analysis contained in TS 5.6.5.b.2 is being updated to a Revision 2 analysis, to reflect changes that were previously approved by the NRC as documented in the safety evaluation report dated August 10, 1994 (Amendment No. 192 for PBAPS, Unit 2). This is an administrative change which will ensure that the references contained in the PBAPS Technical Specifications are accurate and consistent with other licensing documents. No technical changes are occurring which have not been previously approved by the NRC. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The SLMCPR is a TS 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. The new SLMCPRs are calculated using NRC approved methodology discussed in "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A-13 (GESTAR-II), and U.S. Supplement, NEDE-24011-P-A-13-US, August 1996, and Amendment 26 The SLMCPR is not an accident initiator, and its revision will not create the possibility of a new or different kind of accident from any accident previously evaluated.

Additionally, this proposed change will delete footnotes contained in TS 2.1.1.2 and TS 5.6.5.b.1 as the result of the NRC approval of analysis associated with Amendment 25 and the R-factor methodology. The proposed change also updates the ARTS/MELLLA analysis contained in TS 5.6.5.b.2. This revision contains information which was previously approved by the NRC. Therefore, the deletion of the footnotes associated with TS 2.1.1.2 and TS 5.6.5.b.1, and the updating of the reference contained in TS 5.6.5.b.2 are administrative changes that do not create the possibility of a new or different kind of accident from any previously evaluated.

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

There is no significant reduction in the margin of safety previously approved by the NRC as a result of: 1) the proposed changes to the SLMCPRs, 2) the proposed change that will delete the footnotes to TS 2.1.1.2 and TS 5.6.5.b.1, and 3) updating the reference to the ARTS/MELLLA analysis contained in TS 5.6.5.b.2. The new SLMCPRs are calculated using methodology discussed in "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A-13 (GESTAR-II), and U.S. Supplement, NEDE-24011-P-A-13-US, August 1996, and Amendment 25. The fuel licensing acceptance criteria for the calculation of the SLMCPR apply to PBAPS, Unit 3 Cycle 13 in the same manner as they have applied previously. The SLMCFRs ensure that greater than 99.9% of all fuel rods in the core will avoid transition boiling if the limit is not violated when all uncertainties are considered, thereby preserving the fuel cladding integrity. Therefore, the proposed TS changes will not involve a significant reduction in the margin of safety previously approved by the NRC.

Additionally, the proposed changes that delete the footnotes to TS 2.1.1.2 and TS 5.6.5.b.1, and update the revision to the ARTS/MELLLA analysis contained in TS 5.6.5.b.2, are administrative changes that will not significantly reduce the margin of safety previously approved by the NRC.

Information Supporting an Environmental Assessment

An environmental assessment is not required for the proposed changes in the SLMCPR limits since the proposed changes conform to the criteria for "actions eligible for categorical exclusion" as specified in 10 CFR 51.22(c)(9). The proposed changes will have no impact on the environment. The proposed changes do not involve a significant hazards consideration as discussed in the proceeding 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 do not involve a significant increase in individual or cumulative occupational radiation exposure.

Additionally, in accordance with 10 CFR 51.41, a review was performed to determine the impact of the proposed administrative changes that delete the footnotes to TS 2.1.1.2 and TS 5.6.5.b.1, and update the revision to the ARTS/MELLLA analysis contained in TS 5.6.5.b.2, on the conclusions of the NRC's Final Environmental Statement for PBAPS. The considerations included in 10 CFR 51.45(b) were used in this review with the following conclusions. Since these changes are administrative only, implementation of the proposed changes has no impact on the environment. Since there is no impact on the environment, there are no adverse environmental effects that cannot be avoided. Since these changes are administrative only and have no impact on operation of the facility nor on the environment, there is no value in considering alternatives to the proposed changes. Since the operation of the facility is not affected by the proposed changes, there is no impact on the original assessment of the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity. Since the operation of the facility is unaffected by the proposed changes, there is no change to the commitment of resources and therefore, no irreversible nor irretrievable commitment of resources involved.

Conclusion

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The Plant Operations Review Committee and the Nuclear Review Board have reviewed these proposed change to the PBAPS, Unit 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.