

PHILADELPHIA ELECTRIC COMPANY

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June 16, 1992

NUCLEAR ENGINEERING & SERVICES DEPARTMENT

Docket Nos. 50-277  
50-278

License Nos. DPR-44  
DPR-56

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

Subject: Peach Bottom Atomic Power Station, Units 2 and 3  
Request for Approval to Use General Electric  
Company Reactor Analysis Methods

Gentlemen:

Our letter to the NRC, dated November 18, 1991, requested approval for Philadelphia Electric Company (PECo) personnel to use General Electric (GE) Company reactor analysis methods (i.e., computer software and models) to perform core reload design and cycle management evaluations for GE-11 fuel, for the Limerick Generating Station (LGS), Units 1 and 2.

In order to demonstrate the proficiency of PECO personnel in the application of GE reactor analysis computer software and models, the following results of three analytical exercises were provided in our November 18, 1991 letter.

1. PECO evaluation of cold shutdown margin demonstration conditions using GE computer software and models for the Peach Bottom Atomic Power Station (PBAPS), Unit 3 Cycle 8 reactors core reload with GE-8 fuel, and verifying consistency with solutions calculated with existing, NRC approved PECO methods.
2. Development of the reactivity anomaly curve for the PBAPS, Unit 3 Cycle 8 GE-0 reload core using GE methods and models, and verifying consistency with solutions calculated with existing, NRC approved PECO methods.
3. A three-dimensional (3-D) steady-state evaluation of a nominal LGS reload core with GE-11 fuel (i.e., Unit 1 Cycle 4) verifying consistency with GE solutions for the same analyses.

NRC letter dated February 21, 1992, approved use of NRC-approved GE reactor analysis methods by PECO personnel for cycle management calculations for LGS Unit 1 and Unit 2 reloads with GE-11 fuel. Specifically, the NRC letter allowed PECO personnel to perform reactivity anomaly and cold shutdown margin demonstration evaluations using GE reactor analysis methods as described in our November 18, 1991 letter.

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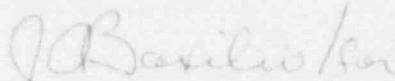
We are now requesting NRC approval for PECO personnel to apply the same GE reactor analysis methods to PBAPS, Unit 2 and Unit 3 core reload designs and cycle management evaluations. The same methodology that is being applied for LGS reactor core reloads with GE-11 fuel is appropriate for the evaluation of PBAPS reloads with GE-11 fuel, for the following reasons.

- As described above, we have demonstrated the proficiency of PECO personnel in the application of the subject GE methods.
- The NRC has approved our use of the GE methods for LGS core reload design and cycle management analysis.
- The conditions under which this fuel will operate are virtually identical.

We would appreciate receiving your approval by early July, 1992.

If you have any questions or require additional information, please contact us.

Very truly yours,



George J. Beck, Manager  
Licensing Section

cc: T. T. Martin, Administrator, Region I, USNRC  
J. J. Lyash, USNRC Senior Resident Inspector, PBAPS