

# PHILADELPHIA ELECTRIC COMPANY

NUCLEAR GROUP HEADQUARTERS

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DAVID R. HELWIG  
VICE PRESIDENT  
NUCLEAR SERVICES

April 26, 1990

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: Technical Specifications Change Request No. 89-21  
Peach Bottom Atomic Power Station, Units 2 and 3

Dear Sir:

On March 8, 1990, Philadelphia Electric Company (PECo) submitted Technical Specifications Change Request (TSCR) No. 89-21 to remove cycle-specific parameter limits from the Peach Bottom Technical Specifications in accordance with the guidance provided in NRC Generic Letter 88-16. In an April 5, 1990 telephone conversation with the responsible PECo Licensing Engineer, the NRC Project Manager for Peach Bottom Atomic Power Station requested that PECo amend TSCR 89-21. The Project Manager also requested that PECo submit to the NRC the Core Operating Limits Reports (COLRs) for Peach Bottom Units 2 and 3 and that PECo provide additional information regarding the Flow Biased Rod Block Monitor setpoint. Each of these requests is addressed in this letter.

## Changes to TSCR 89-21

The following changes were requested.

- 1) If the approved ("A") version of PECo-FMS-0005 has been published, add an "A" to the report number on Technical Specification page 256a for both units. Otherwise, add a reference to the NRC SER that approved the report.
- 2) Remove all references to PECo-FMS-0006 from the proposed Technical Specification pages for both units because the report is not yet approved by the NRC.

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- 3) Add the phrase "(latest approved version)" to the reference to NEDE-24011-P-A on page 256 for both units.
- 4) Revise the beginning of Note 2 on page 74 to state "The equation for Trip Level Setting..." This clarifies that the note applies to the Trip Level Settings and not the Minimum No. of Operable Instrument Channels Per Trip System.

PECo concurs with the requested changes and has made each of the changes as indicated on the revised Technical Specification pages attached herewith.

These changes to TSCR 89-21 are editorial and administrative in nature. The change to Note 2 on page 74 is merely a clarification and does not change its meaning. Removal of the references to PECO-FMS-0006 has no bearing on the acceptability of referencing other related PECO reports as proposed in TSCR 89-21. The revised references to PECO-FMS-0005 and NEDE-24011-P-A are merely administrative clarifications. Therefore, these changes to TSCR 89-21 do not affect the supporting No Significant Hazards Consideration Determination.

The attached pages 74, 140a, 256 and 256a for both units supersede those submitted with TSCR 89-21. The attached page 140b for Unit 2 supersedes the one submitted with TSCR 89-21. Since references to PECO-FMS-0006 are not permissible, PECO hereby withdraws the Unit 3 page 140b and pages 17, 24 and 140c for both units from TSCR 89-21.

#### Submittal of Core Operating Limits Reports

The Cycle 8 COLR for Peach Bottom Unit 2 and the Cycle 8 COLR for Peach Bottom Unit 3 are attached. This fulfills the requirement of proposed Specification 6.9.1.e(4) for the current fuel cycles.

#### Flow Biased Rod Block Monitor Setpoint

PECo was requested to explain the origin of the equation for the Flow Biased Rod Block Monitor Trip Level Setting on Table 3.2.C and explain why the equation is being changed (i.e., introduction of new variable, N, into the equation). PECO's response follows.

The purpose of Rod Block Monitor (RBM) is to mitigate the consequences of a Rod Withdrawal Error (RWE) transient as discussed in Sections 7.5.8 and 14.5.3.1 of the Peach Bottom Updated Final Safety Analysis Report. As discussed in "General Electric Standard Application for Reactor Fuel", NEDE-24011-P-A-9, cycle specific RWE analyses are conducted to establish the 100% flow setpoint of the RBM. A range of possible setpoints are considered, usually 104% to 110%. The delta Critical Power Ratio (CPR) corresponding to each possible setpoint is calculated, and the desired 100% flow RBM setpoint is then selected.

The generic RBM setpoint equation, as shown in NEDO-24229-1, is shown below. NEDO-24229-1 was submitted to the NRC on January 9, 1981 to support license amendments for single recirculation loop operation at Peach Bottom (amendments subsequently approved, No. 78 for Unit 2 and No. 77 for Unit 3).

$$RB = mW + (RB_{100} - m(100))^{**}$$

where, RB = power at rod block in % of rated,

m = flow reference slope for RBM,

RB<sub>100</sub> = top level rod block at 100% flow,

W = recirculation loop drive flow in % of rated.

The established value of m is 0.66, the value since original plant licensing and the value in Standard Technical Specifications for General Electric BWRs (NUREG-0123, Rev. 3). The 100% flow RBM setpoint, RB<sub>100</sub>, selected for the current Unit 2 and Unit 3 fuel cycles is 107%. Consequently, this equation is currently shown on Peach Bottom Technical Specifications Table 3.2.C in the form of

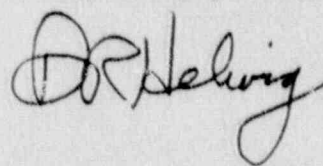
$$RB = (0.66W + 41 - 0.66\Delta W^{**}) \frac{FRP^{**}}{MFLPD}$$

because  $(107\% - .66(100)) = 41$ .

Since a 100% flow RBM setpoint other than 107% could be selected for future fuel cycles in accordance with NRC approved methodologies, the value 41 in this equation is cycle-specific. Therefore, it is in conformance with Generic Letter 88-16 to replace 41 with the expression from which it is derived,  $(RB_{100} - m(100))$ . To simplify the Technical Specifications terminology "N" was used in place of RB<sub>100</sub>. Based on the above,  $(RB_{100} - m(100)) = (N-66)$ . This is the basis for changing 41 in the equation to  $(N-66)$ . The value of N will be provided in each COLR.

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

Very truly yours,



Attachments

cc: T. T. Martin, Administrator, Region I, USNRC  
J. J. Lyash, USNRC Senior Resident Inspector  
T. M. Gerusky, Commonwealth of Pennsylvania

\*Terms of the equation which "fall out" during normal two-loop operation are not shown.

\*\*These terms of the equation "fall out" during normal two-loop operation.  $\Delta W$  goes to zero and FRP/MFLPD goes to one.



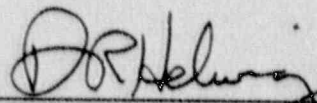
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COUNTY OF CHESTER :

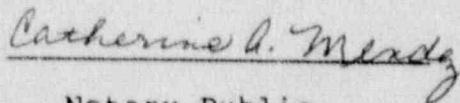
D. R. Helwig, being first duly sworn, deposes and says:

That he is Vice President of Philadelphia Electric Company, the Applicant herein; that he has read the changes to Peach Bottom Technical Specifications Change Request No. 89-21 and associated additional information requested by the NRC, 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 <sup>26</sup> day  
of April 1990.



Notary Public

