



PECO ENERGY

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July 1, 1994

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

Docket No. 50-277  
50-278  
License Nos. DPR-44  
DPR-56

Subject: Peach Bottom Atomic Power Station Units 2 & 3  
Response to Notice of Violation (Combined Inspection Report No. 50-  
277/94-04 & 50-278/94-04)

Dear Sir:

In response to your letter dated May 26, 1994, which transmitted the Notice of Violation concerning the referenced inspection report, we submit the attached response. The subject report concerns a routine residents safety inspection that was conducted March 20 through April 30, 1994.

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

Sincerely,

Gerald R. Rainey  
Vice President,  
Peach Bottom Atomic Power Station

GRR/RKS:bah

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cc: R. A. Burricelli, Public Service Electric & Gas  
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T. T. Martin, US NRC, Administrator, Region I  
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R. I. McLean, State of Maryland  
C. D. Schaefer, DelMarVa Power

## RESPONSE TO NOTICE OF VIOLATION

### Restatement of Violation

*Technical Specification 4.8.E.1 requires that radiological environmental monitoring samples be collected as specified in Table 4.8.3.a which requires a (continuous) composite waterborne surface sample of the plant intake and discharge streams to be collected over a one month period.*

*Procedure ST-C-095-835-2, "Circulating Water Intake and Discharge Composite Sampling" requires that the continuous waterborne sample be collected using an automatic system with a continuous flowrate to the collection tanks. Further, daily manual samples must be taken, if the automatic sampling system is inoperable.*

*Contrary to the above, on several occasions during the period from March 23, 1994, to April 15, 1994, a continuous waterborne sample was not collected using an automatic system with a continuous flowrate to the collection tanks. Daily manual samples were not taken, because the automatic sampling system was not declared inoperable. Specifically, wide variations in the sample flowrate to the discharge canal in the river water intake sample tanks were observed, which resulted in non-representative samples.*

*This is a Severity Level IV Violation (Supplement I).*

### Reason for the Violation

*Continuous water sample collection by the Circulating Water Intake and Discharge Automatic Composite Samplers was inhibited over time by the build-up of silt in the sampling systems. In both the sampling systems, silt particles would settle out of the sample stream and would clog or impede flow in the sample lines. This resulted in a large variation in the flowrate during the collection period. The build-up of silt in the Discharge Composite Sampler was not as pronounced as that in the Intake Composite Sampler, but the flowrate of both samplers was reduced over time. The original design of the systems did not adequately address the impact of silt in the system. In addition, personnel were attempting to manage the challenges to the system instead of addressing the system inadequacy.*

*To compensate for the periods of reduced sample flow, chemistry technicians would routinely adjust valves on the sample lines in an attempt to obtain a consistent flow rate. Adequate guidance was not provided in procedures to address low flow conditions. The chemistry technicians would also routinely increase the flow rate at the end of the sample period if the collection tanks were found not to be filled. There was no procedural requirement for the collection tank to be filled, and this action resulted in the dilution of the composite sample. It was not recognized by the individuals involved that excessive variations in the sample flow rate at the beginning and at the end of the collection period could impact the composite samples.*

### The Corrective Steps That Have Been Taken and Results Achieved

A portable composite sampling system was installed on the circulating water intake on April 26, 1994, as an alternative sampling device in order to obtain a more consistent composite sample. Operating procedures were updated to provide guidance to address low flow conditions. Increased monitoring of both the Intake and Discharge Composite Samplers was initiated at this time.

A meeting was held with appropriate Chemistry personnel on April 29, 1994, to discuss the problems associated with the composite samplers and possible solutions. Additionally, current chemistry composite sampling practices were discussed and evaluated. The practice of filling the collection tank at the end of the sample period was discontinued.

The Intake and Discharge Composite Sampler flows were set at a higher rate to prevent silt build-up, but this attempt proved unsuccessful. Both composite samplers could not sustain a consistent sample flowrate. Additional corrective action on the intake composite sampler included the replacement of a ball valve on the sample line, the disassembly and cleaning of the pump strainer, and an inspection of the sampling pump. Although these actions improved the intake composite sampling capability temporarily, flowrate consistency was still not obtained. Based on the results of the corrective actions taken, the intake and discharge composite samplers were declared inoperable and daily grab samples were taken in compliance with Technical Specifications until the portable composite sampling systems and operating procedures were approved for use in lieu of the permanently installed systems.

### Corrective Steps That Will Be Taken to Avoid Further Violations

A reading package will be developed for appropriate station personnel that discusses this event and the lessons learned. This package will be compiled and presented to appropriate personnel by August 1, 1994.

Additional sampling systems will be evaluated to determine the most effective system for this application. This evaluation will be completed by December 15, 1994.

### Date When Full Compliance was Achieved

Full compliance was achieved April 29, 1994, when the practice of filling the collection tank at the end of the sample period was discontinued, increased monitoring of the Intake and Discharge Composite Sampler flowrates was initiated and a portable composite sampling system was installed on the circulating water intake as an alternate sampling device.