



## PECO NUCLEAR

A Unit of PECO Energy

Robert W. Boyce  
Plant Manager  
Limerick Generating Station

PECO Energy Company  
Limerick Generating Station  
PO Box 2300  
Sanatoga, PA 19464-0920  
610 718 2000

March 28, 1996

Robert Bauer, Jr.  
Department of Environmental Resources  
Bureau of Water Quality Management  
Suite 6010, Lee Park  
555 North Lane  
Conshohocken, PA 19428

SUBJECT: Limerick Generating Station, Units 1 and 2  
Noncompliance of NPDES Permit No. PA-0052221,  
Bradshaw Reservoir Discharge Water Temperature  
Records

Dear Mr. Bauer:

### Background:

Two instruments are utilized to monitor and record the Bradshaw Reservoir discharge water temperature: 1) the Bradshaw Reservoir temperature monitor, which inputs to a strip chart recorder and to the station's main control room Plant Monitoring System (PMS) computer which computes and retains hourly average temperature values, and 2) the Water Processing Facility (WPF) temperature monitor, which inputs to a separate strip chart recorder. Prior to the occurrence of this non-compliance, the WPF temperature monitor was inoperable due to flooding of its underground storage vault in mid January 1996.

### Description of the Non-Compliance:

On February 18, 1996, station personnel discovered that no records existed for the Bradshaw Reservoir discharge water temperature for the following time periods:

February 13, 1996, 0900 to 2400 hours (15 hours),  
February 15, 1996, 0800 to 2300 hours (15 hours), and  
February 17, 1996, 1500 to 2400 hours (9 hours).

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This is contrary to the requirements of Part C, Section G, of the NPDES permit which requires the Bradshaw Reservoir discharge water temperature to be continuously monitored and recorded. The Bradshaw Reservoir temperature monitor was continuously monitoring temperature; however, no records were obtained during the three time periods stated above.

The events which led to the discovery of this non-compliance are described below.

1. At 1000 hours on February 18, 1996, station personnel identified that the Bradshaw Reservoir temperature recorder was out of strip chart recording paper. Station personnel immediately installed a new strip chart recording paper cartridge. An evaluation identified that the recorder ran out of paper at 1200 hours on February 13, 1996, however, the temperature monitor remained operable.
2. An analysis of the information retained by the station's PMS computer was performed. After obtaining all Bradshaw Reservoir records available from the PMS computer files, station personnel determined that no records of the discharge water temperature existed for the three time periods stated above. The lack of temperature recording by the PMS computer during these three time periods is attributed to technical difficulties that were experienced while installing and testing a new PMS computer. For the remaining time periods, hourly average temperature values were recorded using temperature data collected at 15 second intervals.

There is no limit on the Bradshaw Reservoir discharge water temperature. Based on the temperature records that were obtained, the discharge water temperature varied by approximately three degrees F during the entire period in question.

#### Cause of the Non-Compliance

Three overlapping circumstances resulted in this non-compliance and are described below.

1. Prior to the occurrence of this non-compliance, station personnel that normally check the Bradshaw Reservoir temperature recorder for adequate strip chart recording paper supply had been temporarily reassigned to other duties for the Unit 1 refueling outage, which commenced during the first week in February 1996.

2. As stated previously, the redundant WPF temperature monitor was inoperable prior to and during the period of non-compliance.
3. The PMS computer was replaced with a new computer in February 1996 during the Unit 1 refueling outage. Because of technical difficulties that were experienced with the new computer during the time period of this non-compliance, the computer was not continuously retaining and printing hourly average temperature values for the Bradshaw Reservoir. This problem with the PMS computer has since been corrected.

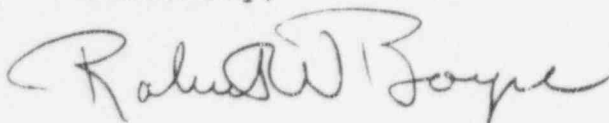
Actions to Prevent Recurrence:

A review of staffing for maintenance of Bradshaw Reservoir and WPF equipment during station outages is currently in progress. This review is expected to be completed by April 23, 1996, and appropriate corrective actions will be implemented as necessary.

The redundant WPF temperature monitor was repaired on February 22, 1996. An additional temperature monitor has also been installed at the WPF. Both redundant WPF temperature monitors remain vulnerable to flooding of their underground vault during periods of heavy precipitation. Plans have been developed to minimize the probability of this vault flooding. These preventative measures are expected to be implemented by June 30, 1996.

If there are any questions please do not hesitate to contact Mr. James L. Kantner at (610) 718-3400.

Sincerely,

A handwritten signature in cursive script, appearing to read "Robert W. Boyle".

DMS:cah

cc: U.S. Nuclear Regulatory Commission  
Document Control Desk  
Docket Nos. 50-352/353  
Washington, D.C. 20555

T. T. Martin  
Administrator, Region I, USNRC  
Docket Nos. 50-352/353

N. S. Perry  
USNRC Senior Resident Inspector, LGS  
Docket Nos. 50-352/353

Program Management Section (3WM52)  
Permits Enforcement Branch  
Environmental Protection Agency  
Water Management Division  
Environmental Protection Agency  
Water Permits Section  
Region III  
841 Chestnut Building  
Philadelphia, PA 19107