



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

October 28, 1996

Mr. Steven J. O'Neil,
Chief, Operations Section
Department of Environmental Resources
Bureau of Water Quality Management
Suite 6010, Lee Park
555 North Lane
Conshohocken, PA. 19428

SUBJECT: Limerick Generating Station, Bradshaw Reservoir NPDES
Permit PA0052221 Non-Compliance

Dear Mr. O'Neil:

DESCRIPTION OF THE NON-COMPLIANCE

During the month of September 1996, the NPDES limit for fecal coliform concentration at the discharge of the Bradshaw Reservoir pumps into the East Branch of the Perkiomen Creek was not met. The permit requires five consecutive grab samples each collected on different days, and the geometric mean of the five samples must be less than or equal to 200 colonies per 100 ml. An Ozone Disinfection System is utilized for treatment at the Bradshaw Reservoir Water Processing Facility.

On September 30, 1996, the geometric mean of the fecal coliform concentration was calculated to be 396 colonies per 100 ml, thereby exceeding the NPDES permit limit. This was the last day of the month; therefore, no additional sampling was performed.

CAUSE OF THE NON-COMPLIANCE:

Non-compliances of the NPDES limit for fecal coliform occurred in the previous two months of July and August 1996, and were addressed in the notification letters dated August 23, 1996, and September 27, 1996, respectively. Station personnel had attributed these non-compliances primarily to leaking gaskets on

9610310232 961028
PDR ADOCK 05000352
S PDR

IE 23/0

October 28, 1996

Page Two

the ozone gas diffusers in the disinfection contact chambers. Following discovery of the leaking gaskets in August 1996, interim corrective actions were taken immediately. Once replacement gaskets could be obtained, they were replaced by September 17, 1996. Station personnel were confident at this time that compliance would be achieved based on the following:

- Since the Ozone Disinfection System was placed in service in 1990, performance has been satisfactory, although the gaskets may have been leaking for a few years. Thus, with new gaskets, considerable improvement in system performance was anticipated.
- Three fecal coliform samples of the required five per month remained to be taken for September 1996. Only one of the first two sample results was greater than the geometric mean limit.

Following replacement of the gaskets, the third fecal coliform sample result did not indicate an improvement in system performance. Station personnel then took residual dissolved ozone concentration samples following disinfection and concluded that operating both of the ozone generators would be necessary to consistently achieve fecal coliform concentrations less than the NPDES permit limit. The normal mode of operation has been to operate one ozone generator since original facility start-up.

Commencing on September 25, 1996, two ozone generators were operated when possible, given installed equipment limitations. This increased dose of ozone did improve system performance as indicated by the last two September 1996 fecal coliform sample results, which were as follows:

- 700 colonies/100 ml before ozone treatment and 200 colonies/100ml after ozone treatment on September 27, 1996.
- 4200 colonies/100ml before ozone treatment and 200 colonies/100 ml after ozone treatment on September 30, 1996.

Although a considerable improvement was achieved, the geometric mean for the month of September 1996 was greater than the NPDES permit limit.

October 28, 1996
Page Three

CORRECTIVE ACTIONS TAKEN:

New gaskets were installed on the ozone gas diffusers and a preventive maintenance task has been created to periodically replace the gaskets. No further system changes have been made since the fecal coliform NPDES permit limit increased to 2000 colonies/100 ml on October 1, 1996. Therefore, compliance can be achieved without treatment.

A root cause analysis has been initiated to review the three NPDES fecal coliform non-compliances.

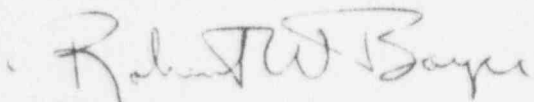
CORRECTIVE ACTIONS TAKEN TO PREVENT RECURRENCE:

Plans are currently underway to prepare the Ozone Disinfection System for dual ozone generator operation as the normal mode commencing on May 1, 1997.

The results of the root cause analysis will be provided to the PADEP in a follow-up letter by November 27, 1996. This analysis will identify the root causes and ensure the development of additional corrective actions to prevent recurrence.

If you have 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. Bayne".

FDL/DMS

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

H. J. Miller
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

bcc: W. G. MacFarland	-	SMB 1-1
K. S. Kemper	-	SSB 2-1
M. P. Gallagher	-	SSB 3-1
J. L. Kantner	-	SSB 2-4
F. D. Lear	-	SSB 3-1
D. J. Cesaro	-	MO S21-2
R. M. Matty, Jr.	-	MO S21-2
G. A. Hunger, Jr.	-	CB 62A-1
Commitment Coordinator	-	CB 62A-1
PA DEP BRP Inspector	-	SSB 2-4
Correspondence Release Point	-	SMB 1-2