Robert W. Boyce
Plant Manager
Limerick Generating Station

PECO ENERGY

PECO Energy Company
Limerick Generating Station
PO Box 2300
Sanatoga, PA 19464-0920
215 327 1200 Ext. 2000

10CFR50.73

January 27, 1994
Docket No. 50-352
License No. NPF-39

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

SUBJECT: Licensee Event Report
Limerick Generating Station - Unit 1

This LER reports a condition prohibited by Technical Specifications (TS) in that fuel oil sample analyses for two Unit 1 Emergency Diesel Generators (EDGs) were not completed within the TS specified time period, and the associated TS ACTION for the inoperable EDGs was not taken within the required period of time. The failure to analyze the samples was due to a less than adequate process for tracking fuel oil sampling and analysis.

Reference:	Docket No. 50-352
Report Number:	1-93-018
Revision Number:	00
Event Date:	December 6, 1993
Discovery Date:	December 29, 1993
Report Date:	January 27, 1994
Facility:	Limerick Generating Station P.O. Box 2300, Sanatoga, PA

19464-2300

This LER is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(i)(B) and 10CFR50.73(a)(2)(vii).

Very truly yours,

Robert W Boyce

GHS/DBN:cah

cc: T. T. Martin, Administrator Region I, USNRC
N. S. Perry, USNRC Senior Resident Inspector, LGS

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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

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TITLE (4) Emergency Diesel Generator Fuel Oil Samples not analyzed within the Technical Specification specified time period.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
1 2	0 6	9 3	9 3	0 1 8	0 0	0 1	2 7	9 4		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)					
POWER LEVEL (10)	0 8 8	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)		
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)		
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)			
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)			
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)			

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
J. L. Kantner, Manager - Experience Assessment, LGS	6 1 0 3 2 7 - 1 2 0 0

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On 12/29/93, samples of fuel oil off-loaded to the Unit 1 D14 and D11 Emergency Diesel Generator (EDG) storage tanks were found delivered to the off site laboratory and neither sample had been analyzed for eight fuel oil properties as required by a Technical Specifications (TS) Surveillance Requirement (SR). The D14 sample had been obtained on 10/28/93, and the D11 sample had been obtained on 11/03/93. The TS SR had not been performed within the 31 day SR time limit and the associated TS ACTIONs had not been taken resulting in a condition prohibited by TS. Operations personnel declared the two EDGs inoperable until the samples were analyzed and the results indicated that both fuel oil samples were within the acceptable range for all parameters. The oil samples were preliminarily analyzed prior to being off-loaded per a separate TS SR, further analyzed on 12/29/93, and met the TS required limits. The primary cause of this event is a less than adequate process to ensure the TS required analyses are completed within the TS required time. A receipt acknowledgement mechanism and new procedures for analysis of the TS parameters will be implemented. Additionally, the personnel involved in the transport of the samples will be instructed on the importance of having the samples promptly delivered to the laboratory.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Unit Conditions Prior to the Event:

Unit 1 was in Operational Condition 1 (Power Operation) at 88% End-of-Cycle coast down at the time of this event. There were no structures, systems, or components out of service which contributed to this event.

Background:

The following is a description of the normal evolution for Emergency Diesel Generator (EDG; EIIS:EK) fuel oil sampling and analysis.

A diesel fuel oil delivery truck arrives on site. The Limerick Generating Station (LGS) Chemistry Section is notified and responds by sampling fuel oil from the truck and performing four out of a total of twelve analyses specified in Surveillance Test (ST) procedure ST-5-020-810-0, "Diesel Generator Fuel Oil Receipt Analysis." These four analyses are required by Technical Specifications (TS) Surveillance Requirement (SR) 4.8.1.1.2.c.1, and analyze the fuel oil for parameters that are specific to No. 2 fuel oil. If the results of these analyses meet the acceptance criteria, the fuel oil is off-loaded from the truck to a specific EDG's fuel oil storage tank (EIIS:DE).

During the initial sampling, additional samples are obtained for the eight analyses required by procedure ST-5-020-810-0. One sample is labeled and packaged for pickup, and the other sample is stored on site as a backup.

The packaged sample is picked up by a courier of PECO Energy Company's Valley Forge Laboratory and delivered to the laboratory for conduct of the remaining eight of the twelve analyses specified in procedure ST-5-020-810-0. These analyses are required to be performed within 31 days of delivery by TS SR 4.8.1.1.2.c.2. The results of the analyses are mailed to LGS, and the ST procedure is then completed by the Chemistry Section.

Description of the Event:

On December 29, 1993, the LGS Chemistry Section was notified by the Valley Forge Laboratory that samples of fuel oil previously off-loaded in the LGS D14 and D11 EDG storage tanks were just delivered to the laboratory. The D14 sample had been obtained at 1445 hours on October 28, 1993, and the D11 sample had been obtained at 0920 hours on November 3, 1993. Neither sample had been analyzed for the eight remaining fuel oil properties. The LGS Chemistry Section determined that TS SR 4.8.1.1.2.c.2 had not

been performed within the TS SR time limit, including the 25% interval extension allowed by TS SR 4.0.2. Operations personnel were immediately notified of the TS violation, and the D11 and D14 EDGs were declared inoperable at 1030 hours on December 29, 1993. Implementation of the TS ACTIONS for two inoperable EDGs was delayed for up to 24 hours as allowed by TS SR 4.0.3 to permit the completion of the surveillance since the time limits of the TS ACTION are less than 24 hours.

Valley Forge Laboratory personnel were then requested to perform the eight additional analyses. The results of the analyses were received by the Chemistry Section at 1620 hours on December 29, 1993. The results indicated that both fuel oil samples met the acceptance criteria for all eight parameters. Operations personnel were notified, and the D11 and D14 EDGs were declared operable at 1645 hours on December 29, 1993, within the 24 hour time limit of TS SR 4.0.3.

The D11 and D14 EDGs were inoperable as a result of the failure to analyze the fuel oil within the time period specified by TS SR 4.8.1.1.2.c.2, including the 25% interval extension allowed by TS SR 4.0.2. The D14 fuel oil sample was required to be analyzed by December 6, 1993, and the D11 fuel oil sample was required to be analyzed by December 12, 1993. Applicable TS ACTIONs of TS Section 3.8.1.1 for inoperable EDGs were required to be performed starting from within two hours after the first EDG became inoperable. The failure to implement the TS ACTIONs for the inoperable EDGs within the specified time period constitutes a condition prohibited by TS. Additionally, this event resulted in two independent trains becoming inoperable in a single system due to a single cause. Therefore, this report is being submitted in accordance with the requirements of 10CFR50.73(a)(2)(i)(B) and 10CFR50.73(a)(2)(vii).

Analysis of the Event:

The actual and potential consequences of this event were minimal. The fuel oil in the EDG storage tanks was not degraded, the EDGs were not called upon to perform their design function, and there was no release of radioactive material to the environment as a result of this event. Both samples had been analyzed satisfactorily for the first four parameters specified in procedure ST-5-020-810-0 prior to off-loading the fuel oil to the EDG fuel oil storage tanks. These analyses verified the oil was No. 2 fuel oil with low water and particulate content based on visual observation. Considering the large dilution factor gained by adding the fuel oil to the existing quantity of fuel oil in the EDG storage tanks, there were no short term concerns. The

eight remaining analyses are intended to confirm the initially performed tests and that the fuel oil parameters for long term storage and use are acceptable. Both samples met the acceptance criteria for all eight parameters when analyzed on December 29, 1993. If the added fuel oil did result in a long term storage concern, this would have been identified during performance of the monthly EDG fuel oil storage tank analysis procedure ST-6-020-81*-*, "D** Diesel Generator Fuel Oil Analysis," for each individual EDG storage tank as required by TS SR 4.8.1.1.2.d. These tests are scheduled and performed by Operations personnel with the assistance of LGS Chemistry personnel.

Cause of the Event:

The primary cause of this event is a less than adequate process to ensure the TS required analyses are completed within the TS required time. This process lacked adequate accountability and communications, utilized an inadequate procedure, and did not utilize an existing ST procedure scheduling process.

Inadequate accountability:

Chemistry Section personnel assigned to complete the ST procedure waited for the results of the analyses rather than actively pursuing them in order to complete the ST procedure. The laboratory typically sent the completed results to the Chemistry Section after the 31 day TS SR time limit, and therefore, the ST procedure was held open for longer than 31 days. The ST procedure was, however, being completed within the 25% TS SR interval extension allowed by TS SR 4.0.2.

Less than adequate communications:

When the fuel oil samples were shipped, there was no communication between the Chemistry Section and the laboratory personnel that fuel oil samples were shipped or received.

Less than adequate procedure:

Procedure ST-5-020-810-0 is an event initiated test that is performed whenever EDG fuel oil is delivered to the LGS site. The ST procedure contains both the analyses performed immediately to satisfy TS SR 4.8.1.1.2.c.1 and the eight remaining analyses performed to satisfy TS SR 4.8.1.1.2.c.2 making tracking of the completion of the two separate TS SRs difficult. The ST procedure is partially completed before the fuel oil is off-loaded and remains open for approximately a month with the Chemistry Section until receipt of the analyses from the off site laboratory.

Failure to use existing controls:

ST procedure ST-5-020-810-0 is an event initiated procedure and there is no pre-established due date. Implementation of this procedure did not utilize the administrative controls associated with normally scheduled ST procedures (e.g., daily scheduling, due date notification, etc.).

The use of the courier to transport the fuel oil samples to the laboratory was established approximately four months prior to this event. Previously, Chemistry Section personnel hand delivered the samples to the laboratory. The personnel who perform the courier service were not adequately aware of the importance of delivering the samples to the laboratory. As a result, the courier failed to deliver the samples to the laboratory in a timely manner.

Corrective Actions:

As an interim corrective action, the Chemistry Section is manually tracking performance of the eight remaining fuel oil analyses for each fuel oil delivery with a scheduled completion period of 20 days from the date of sampling. The Valley Forge Laboratory supervision will be notified by the LGS Chemistry Section of any fuel oil samples being shipped to the lab.

The following corrective actions are expected to be completed by April 29, 1994, and will assist the Chemistry Section personnel in actively pursuing completion of the ST procedure within the 31 day TS SR time limit.

A receipt acknowledgement mechanism with time limits for responses will be established by the Chemistry Section and the Valley Forge Laboratory to track shipment of the samples.

New ST procedures will be written to perform only the eight remaining analyses. ST procedure ST-5-020-810-0 will be revised to include the first four analyses only, and will include steps to initiate and schedule the new ST procedures with a due date within the 31 day TS SR time limit. If the new ST procedure is not completed satisfactorily within the specified time, the ST procedure scheduling process ensures that Operations personnel are informed to take the appropriate TS ACTIONS.

Instructions will be provided to the courier and Valley Forge Laboratory personnel the significance of the EDG fuel oil samples, on the need to promptly deliver the samples to the laboratory, and the importance of performing the fuel oil analyses within the TS SR time limit. Additionally, the packages

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used to transport the fuel oil samples will be conspicuously labeled to indicate the samples are required by TS and are a high priority.

As an additional action to address generic concerns, a review of the other LGS event initiated ST procedures will be performed to determine if other ST procedures should also be revised.

Previous Similar Occurrences:

None