Commonwealth Edison Company
LaSalle Generating Station
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Marseilles, IL 61341-9757
Tel 815-357-6761

ComEd

November 15, 1996

**United States Nuclear Regulatory Commission**
**Attention: Document Control Desk**
**Washington, D.C. 20555**

Licensee Event Report #96-013, Docket #050-373 is being submitted to your office in accordance with 10 CFR 50.73(a)(2)(i).

Respectfully,

D. J. Ray
Station Manager
LaSalle County Station

Enclosure

cc: A. B. Beach, NRC Region III Administrator
M. P. Huber, NRC Senior Resident Inspector - LaSalle
C. H. Mathews, IDNS Resident Inspector - LaSalle
F. Niziolek, IDNS Senior Reactor Analyst
INPO - Records Center

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220057

NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 05/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1): | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| LaSalle County Station Unit One | 05000373 | 1 of 5 |

TITLE (4)

Emergency Diesel Generator Fuel Oil Not Analyzed in Accordance with Technical Specification Surveillance Requirements Due to Procedural Deficiencies

| 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 NAME | DOCKET NUMBER |
| | | | | | | | | | LaSalle County Station Unit 2 | 05000374 |
| 10 | 16 | 96 | 96 | 013 | 00 | 11 | 15 | 96 | FACILITY NAME | DOCKET NUMBER |

| | |
|---|---|
| OPERATING MODE (9) | 4 |
| POWER LEVEL (10) | 000 |

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

| | | | |
|---|---|---|---|
| ☐ 20.2201(b) | ☐ 20.2203(a)(3)(i) | ☐ 50.73(a)(2)(iii) | ☐ 73.71(b) |
| ☐ 20.2203(a)(1) | ☐ 20.2003(a)(3)(ii) | ☐ 50.73(a)(2)(iv) | ☐ 73.71(c) |
| ☐ 20.2203(a)(2)(i) | ☐ 20.2003(a)(4) | ☐ 50.73(a)(2)(v) | ☐ OTHER |
| ☐ 20.2203(a)(2)(ii) | ☐ 50.36(c)(1) | ☐ 50.73(a)(2)(vii) | |
| ☐ 20.2203(a)(2)(iii) | ☐ 50.36(c)(2) | ☐ 50.73(a)(2)(viii)(A) | (Specify in Abstract below and in Text, NRC Form 366A) |
| ☐ 20.2203(a)(2)(iv) | ☒ 50.73(a)(2)(i) | ☐ 50.73(a)(2)(viii)(B) | |
| ☐ 20.2003(a)(2)(v) | ☐ 50.73(a)(2)(ii) | ☐ 50.73(a)(2)(x) | |

LICENSEE CONTACT FOR THIS LER (12)

| NAME | TELEPHONE NUMBER (Include Area Code) |
|---|---|
| Steve Seaborn, Operating Procedures Coordinator | (815) 357-6761 Extension 2683 |

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) | ☒ NO | | | | |

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

A review of the diesel generator section of the Improved Technical Specifications was being conducted to ensure that the requirements regarding diesel fuel oil sampling and analyses could be implemented. As a result of this review, it was determined that some of the current Technical Specification requirements for fuel oil analyses were not being met. Verification of kinematic viscosity for new fuel oil shipments prior to addition to storage was not being completed in accordance with Technical Specification 4.8.1.1.2.c.1.b. In addition, analyses of stored fuel oil was not always being completed within the surveillance interval in accordance with Technical Specification 4.8.1.1.2.c.2. A review of analytical results indicates that fuel oil received in shipments and stored fuel were within requirements throughout the period where these deficiencies existed. The sampling and analyses program for fuel oil has been revised to ensure fuel oil conforms to requirements and station procedures have been developed or revised to ensure surveillance requirements are implemented and tracked.

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

**A. CONDITION PRIOR TO EVENT**

Unit(s): 1/2 Event Date: 10/16/96 Event Time: 1400 Hours
Reactor Mode(s): 4/5 Mode(s) Name: Cold Shutdown/Refuel Power Level(s): 0%/0%

**B. DESCRIPTION OF EVENT**

On October 16, 1996, a plant supervisor identified that fuel oil received at the site had not been analyzed for kinematic viscosity before being transferred to the emergency diesel generator [EK] storage tanks. Fuel oil samples had been obtained as required and were then sent to an off-site laboratory for analysis. However, analytical results verifying that the fuel oil was within applicable ASTM limits for kinematic viscosity were not completed prior to unloading, as required by Technical Specification 4.8.1.1.2.c. This deficiency was discovered during a comparison of the current Technical Specifications with the requirements presented in Improved Technical Specifications which are planned for use at the Station.

New fuel oil is supplied to the Station with a Certification of Conformance to ASTM D975 which includes kinematic viscosity. Station personnel believed that the Certificate of Conformance required the vendor to analyze the fuel oil for kinematic viscosity prior to shipment. However, it was determined that this analysis is usually not performed on new fuel oil by the supplier since the fuel oil falls within the viscosity limits as a result of the manufacturing process. A review of our analyses records and the method used to sample and analyze new fuel oil shipments upon receipt, indicated that the kinematic viscosity analyses were completed but not prior to unloading. This has been the case since the start of plant operation. Kinematic viscosity was within specification for all samples.

In addition, it was determined that the analyses of stored fuel oil did not meet the requirements of Technical Specification 4.8.1.1.2.c. This also occurred because the sampling and analysis method used for stored fuel did not ensure that analyses were completed within the surveillance interval. All samples were within specification.

Deficiencies in completing sample analyses within the required Technical Specification surveillance interval introduced the possibility that new diesel generator fuel oil could be transferred to site storage tanks without meeting quality standards. In addition, by not performing all required analyses on stored fuel created the possibility that degradation of stored fuel oil would not have been identified within the Technical Specification interval. This event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B).

**C. CAUSE OF EVENT**

New fuel oil shipments were sampled and analyzed for total particulate at an offsite laboratory and again sampled onsite, visually inspected, and analyzed for API gravity, water and sediment. These analyses, along with the Certificate of Conformance, were obtained prior to addition of the fuel to the storage tanks. A sample of the fuel obtained onsite was sent back to the offsite laboratory for further ASTM D975 analyses, including kinematic viscosity.

The initial new fuel oil sampling and analysis program was developed in the early 1980's and was based on the guidance of a Corporate Directive which stated that analyses of new fuel oil prior to addition to the storage tanks are unnecessary as long as the fuel is delivered with a Certificate of Conformance. The Corporate Directive was revised in the early 1990's to require the API gravity, water and sediment and visual inspection of the fuel prior to addition to the storage tanks. LCP-110-62, "Sampling and Analysis of Emergency Diesel Fuel Oil," reflected this guidance, and resulted in the procedure being inadequate to ensure the surveillance requirements of the Technical Specifications were being met. The Certificate of Conformance was still considered adequate by station personnel to meet the kinematic viscosity requirements.

The Technical Specification requirements to perform analyses on stored diesel generator fuel oil within the required interval were not met because of a management deficiency in failing to provide specific procedures to track this surveillance requirement.

A contributing cause to this event was failure to perform a thorough review of the sampling and analysis and surveillance procedures following a previous noncompliance with Technical Specification 4.8.1.1.2.c.2

**D. ASSESSMENT OF SAFETY CONSEQUENCES**

The kinematic viscosity of the fuel oil in new shipments was not verified prior to storage of the fuel in the storage tanks. In addition, some storage tank analyses were not performed in the defined time period. The purchase of diesel generator fuel oil is classified as 'Safety Related,' quality control required, and the specifications in the purchase order with the fuel supplier states that the fuel is to meet the requirements of ASTM D975 which includes kinematic viscosity specifications.

The diesel generator fuel oil program verifies the quality of the fuel oil through grab samples taken from the truck prior to unloading the contents into the storage tank. Acceptance of the shipment is contingent on the successful completion of several analyses which verify the oil has not degraded during shipment and on the transfer of the certificate of conformance that accompanies the shipment. Site personnel verify that the certificate of conformance states that the fuel oil meets the specifications established in the purchase order. In addition, fuel oil samples are sent to an off-site laboratory for subsequent analyses against ASTM D975 specifications. Analyses by this laboratory verifies that fuel oil shipments have always conformed to ASTM requirements. Likewise, quarterly and monthly analyses of stored diesel fuel oil has confirmed that the fuel oil meets ASTM D975 and ASTM D2276 requirements. Therefore, the safety consequences of these deficiencies in sample analysis are minimal.

**E. CORRECTIVE ACTIONS**

1. The ComEd offsite laboratory has been assigned to perform all required Technical Specification 4.8.1.1.2.c. analyses on shipments of new fuel oil and provide notification to the site before unloading will be authorized by the site.

2. Surveillance procedure LOS-DO-SR2, "Diesel Fuel Oil Analysis Verification (New Fuel Oil)," was developed to address the receiving of new fuel oil on site (Technical Specification 4.8.1.1.2.c.). By implementation of this procedure, Operating ensures that analytical results for the off-site laboratory are received and within ASTM specifications prior to unloading to storage tanks.

3. Operating procedure LOP-DO-01, "Receiving and Sampling New Diesel Fuel Oil," was revised to ensure that procedure LOS-DO-SR2 and the quality control receipt inspection are satisfactorily completed prior to unloading the new fuel oil to the storage tanks.

4. The Technical Specification requirements in LCP-110-62 will be incorporated into the following procedures: LOP-DO-01, LOS-DO-SR2, LOS-DO-M1, LOS-DO-Q1, and LCP-110-63. LCP-110-62 will be canceled.

5. Surveillance procedure LOS-DO-M1, "Diesel Fuel Oil Monthly Analysis Verification (Stored Fuel Oil)," will be developed to address the monthly analysis of the diesel generator fuel oil storage tanks (Technical Specification 4.8.1.1.2.c.2.). By implementation of this procedure, Operating will ensure that the monthly analysis for total particulate results obtained by the off-site laboratory are received by the station, within specifications, and that the required frequency has not been exceeded.

6. Chemistry procedure LCP-110-63, "Preparation and Shipment of Oil Samples for Offsite Analyses," will be revised to ensure that the Technical Specification (4.7.5.1.2.b. and 4.8.1.1.2.c.) fuel oil storage tank samples are sent to the off-site laboratory and that sample receipt confirmation is obtained. The process is designed to ensure that the samples are analyzed and the results are obtained by the station within the required time frame.

7. LOS-DO-Q1, 'Diesel Fuel Oil Quarterly Analysis (Stored Fuel Oil)," will be developed to address the analysis of the quarterly samples of the diesel generator fuel oil storage tanks (Technical Specification 4.8.1.1.2.c.1.). By implementation of this procedure, operations will ensure that the quarterly results for water and sediment and kinematic viscosity analyses performed by the ComEd offsite laboratory are received by the station, are within specifications, and that the required frequency have not been exceeded.

8. Operating Department will issue a General Information Notice (lessons learned) to Operations, Chemistry and Engineering personnel on this event.

**F. PREVIOUS OCCURRENCES**

| LER NUMBER | TITLE |
|---|---|
| LER 373-95-005 | Incomplete Sample Analysis of New Diesel Fuel. |

This event involved a failure to analyze new fuel for total particulate following a change in Technical Specification requirements which added this requirement. Procedures LOP-DO-01 and LCP 110-62 were reviewed and revised as part of the corrective actions resulting from the event. However, these reviews did not identify the deficiencies in completing sample analyses within the required Technical Specification interval since only the requirement to obtain the samples was included in the reviews.

**G. COMPONENT FAILURE DATA**

Since no component failure occurred, this section is not applicable.