

Commonwealth Edison Company  
LaSalle Generating Station  
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June 13, 1997

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

**Subject:** Notice of Violation, NRC Inspection Report  
50-373/374-97003  
LaSalle County Station, Units 1 and 2  
Facility Operating License NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

**Reference:** G. E. Grant letter to W. T. Subalusky dated,  
May 20, 1997, Transmitting NRC Inspection  
Report 50-373/374-97003

The enclosed attachment contains LaSalle County Station's response to the Notice of Violation, that was transmitted in the Reference letter.

If there are any questions or comments concerning this letter, please refer them to me at (815) 357-6761, extension 3600.

Respectfully,

A handwritten signature in dark ink, appearing to read "W. T. Subalusky", with a large, stylized flourish extending from the end.

W. T. Subalusky  
Site Vice President  
LaSalle County Station

Enclosure

cc: A. B. Beach, NRC Region III Administrator  
M. P. Huber, NRC Senior Resident Inspector - LaSalle  
D. M. Skay, Project Manager - NRR - LaSalle

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**ATTACHMENT  
RESPONSE TO NOTICE OF VIOLATION  
NRC INSPECTION REPORT  
373/374-97003**

**VIOLATION: 373/374-97003-01**

During an NRC inspection conducted on February 7 through March 21, 1997, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

1. Technical Specification 6.2.A.a requires that applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978, be established, implemented, and maintained.

Appendix A of Regulatory Guide 1.33, Revision 2, February 1978, specifies procedures for the operation and testing of the onsite emergency power sources.

Step E.13.12 of LaSalle Operating Procedure (LOP) DG-02, "Diesel Generator Startup and Operation," Revision 22, requires that the Nuclear Station Operator (NSO) make appropriate entries in Attachment E to LOP-DG-02, "Diesel Generator Start and Run Log." Section 3 of Attachment E to LOP-DG-02 requires the operator to record the time that the diesel generator output breaker is closed during the test.

Step 3.12 of LaSalle Operating Surveillance (LOS) DG-M1, "0 Diesel Generator Operability Test," Attachment A, Revision 32, requires the operator to record engine data on Attachment C2 to LOS-DG-M1 after the emergency diesel generator (EDG) has been loaded for at least one hour OR reached thermal equilibrium (whichever time is greater). Also, the stated purpose of the procedure was to demonstrate that the 0 DG could be started and operated at rated load for at least 60 minutes.

Contrary to the above, the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978, were not correctly implemented in the following instances:

- a. On March 3, 1997, during testing of the 2A EDG, the NSO recorded the time that the EDG reached rated load of 2400 kw instead of the time that the EDG output breaker was closed.
- b. On February 27, 1997, the 0 emergency diesel generator was tested at rated load for 56 minutes, four minutes less than the 60 minute operating time required by the procedure.

This is a Severity Level IV violation (Supplement I) (50-373/97003-01; 50-374/97003-01).

**REASON FOR VIOLATION: 373/374-97003-01a**

The NSO performed the 2A EDG surveillance using procedure LOS-DG-M2 "2A Diesel Generator Operability Test". Breaker closure time is recorded in the LOS-DG-M2 Attachment E and was also recorded in the NSO's log. Procedure LOS-DG-M2 did not provide a place for the NSO to record the loaded run start time. Procedure LOP-DG-02, "Diesel Generator Startup and Operation" Attachment E is used to record information used as part of the diesel start log. The information recorded is used only for trending purposes. During conduct of the surveillance, the NSO recorded the time the EDG reached rated load rather than the breaker closure time as listed on the LOP-DG-02 Attachment E. The operator recorded this time, instead of the breaker closure time, as a method to track that the diesel ran at load for at least one hour. Recording the loaded run time instead of the breaker closure time is not in accordance with the procedure; however, it does not impact the surveillance test.

**CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:**

Procedure LOS-DG-M2 "2A Diesel Generator Operability Test" was revised on March 26, 1997, to provide a place for recording the loaded run start time.

**CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS:**

The NSOs have received intensive training on the need for strict procedure adherence as part of the High Intensity Training.

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:**

Full compliance was achieved on March 26, 1997, when LOS-DG-M2 was revised.

## **REASON FOR VIOLATION: 373/374-97003-01b**

On February 27, 1997, the local operator performed procedure LOS-DG-M1 Attachment A1 during this surveillance. In accordance with the procedure, engine data is recorded after the diesel runs loaded for over one hour or thermal equilibrium is reached (exhaust temperatures are steady) whichever time is greater. The operator took this data when thermal equilibrium was reached which in this case was less than 60 minutes into the run. The operator hurried completion of the test in order to take the remaining test data and have the procedure attachments finished before shift turnover. These actions were human performance errors on the part of the operator from inadequate work practices in using shortcuts to hasten job completion and the poor practice of using the thermal equilibrium criteria without also verifying the sixty minute procedural requirement.

The NSO uses the procedure instruction and clock time to ensure that the diesel has been loaded for at least 60 minutes. Specific start and end times for the loaded run are not included as part of the data the NSO records in the attachment. In this case, the NSO relied on the local operator's notification that he had completed the engine data readings as verification of the 60 minute run rather than using clock time or other means such as the computer data. The NSO also failed to use three way communications in order to determine that the local operator's notification indicated that both procedural requirements had been met in order to shut down the diesel; that is, thermal equilibrium and at least 60 minutes run time. This misjudgment resulted from the poor work practice and was specifically an inadequate work practice in not verifying the information or determining proper run time on his own.

A contributing cause was that the attachment to LOS-DG-M1 where the NSO records the loaded run time of the diesel was not clear. There was no requirement to record the start time for the fully loaded condition. As a result, the NSO could not use the recorded data to self verify that the time period of the loaded run was at least sixty minutes. Unless the NSO remembered or separately recorded this time as some NSOs did, they would find that they relied on the local operator's notification. The other information the NSO recorded during the surveillance, diesel start time, breaker closure time and breaker opening time, would not enable the NSO to verify that the loaded run time was met. This procedure deficiency also prevented the subsequent reviewers from being able to verify this requirement was met satisfactorily.

#### **CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:**

1. LOS-DG-M1 was performed successfully on the 0 diesel generator on March 6.
2. The loaded run times for surveillances completed on the other diesel generators since January, 1996 were reviewed using process computer data. These other surveillances were determined to have satisfactorily met the procedure and Technical Specification requirements.
3. The operators involved in the event were counseled by senior Operating Department management regarding the need to adhere to procedures and to improve their work practices regarding the conduct of surveillances. Management reemphasized the requirement to avoid shortcuts or misjudgments resulting from time pressure or habit intrusion. Additional disciplinary action was taken.
4. A review was performed on a representative sample of Operating surveillance procedures to determine if acceptance criteria are clearly listed and that the criteria are reviewed in approving the surveillance. No similar deficiencies in acceptance criteria were found in this random sample.

#### **CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS:**

1. LOS-DG-M1 and attachments to the procedure were revised on April 22, 1997, to provide specific documentation of test objectives and the data recorded to verify that the acceptance criteria had been met.

#### **DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:**

Full compliance was achieved with the successful performance of the LOS-DG-M1 on the 0 diesel generator on March 6, 1997.



**VIOLATION: 373/374-97003-02**

10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires that activities affecting quality be prescribed by documented procedures or instructions and that these procedures or instructions include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above:

- a. Step 2.c of LOS-AA-S1, "Shiftly Logs," Revision 56, Attachment C1, dated November 23, 1996, did not include adequate acceptance criteria for cooling lake level. The shiftly log procedure inappropriately listed 701.7 feet as the maximum allowable lake level while the Updated Final Safety Analysis Report, Section 3.11.1.4.2, specified the maximum lake level as 701 feet.
- b. On September 1, 1995, and December 20, 1996, calibration of the lake blowdown flow instrument OFE-WL-001, an activity affecting quality, was performed without the use of documented instructions, procedures, or acceptance criteria appropriate for the activity.

This is a Severity Level IV violation (Supplement I) (50-373/97003-02; 50-374/97003-02).

**REASON FOR VIOLATION: 373/374-97003-02**

This event resulted from an inadequate understanding and consideration of the design basis of the lake level and its implementation in operating procedure limits and internal flooding concerns. This condition led to operating and surveillance procedures which were both inadequate and incorrect including LOS-AA-S1, "Shiftly Control Room Back Panel Check for Operational Condition 4."

The procedure identifies a normal, or target maximum lake level of 700 ft., but cites an upper limit for lake level of 701 ft. 7 in. This exceeds the maximum lake level of 701 ft. described in the UFSAR and used in the plant internal flooding analyses. The procedure included this incorrect information despite the fact that the process for preparation of station procedures requires a safety evaluation screening which includes checks of the UFSAR

Primary considerations with respect to controlling high lake level appeared to have been on operational issues, such as preventing fogging during the winter, preventing flow over the spillway, and providing a high level which would allow shutdown of the lake makeup pumps for two weeks or more at a time.

Significant contributors to the event were the acceptance by Operations of conditions outside the normal control band and lack of knowledge by Engineering and Operations personnel of the 701 ft. design basis maximum level for the lake.

**CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:**

Station policy that the plant is to be operated within its normal limits has been re-emphasized to the Operating Department. Operation outside these limits will only be accepted following review and approval by Operations senior management.

**CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATION:**

A Temporary Procedure Change was made to LOS-AA-S1 on April 28, 1997, to incorporate appropriate limits and operator actions. A permanent procedure change will be made by September 1, 1997. (NTS 373-180-97-009.01LER)

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:**

Full compliance was achieved on April 28, 1997, with the revision to procedure LOS-AA-S1.

**VIOLATION: 373/374-97003-02b**

**REASON FOR VIOLATION: 373/374-97003-02b**

In September, 1995, the lake blowdown flow instrument was calibrated by Baird Controls using a qualified program. In December, 1996, a different vendor, Vortex Technologies, performed a calibration identical to that done in September, 1995. In February, 1997, it was identified that Vortex was neither on the ComEd QA Buyer List nor was their program qualified. Investigation revealed that, while the Vortex calibration was technically sound, deficiencies existed in their QA processes.

A review of the original design found the lack of specification of quality requirements for the Vortex calibration program due to inadequate design control. The original classification of the flow instrumentation as non-safety related during initial design was incorrect. This flow instrumentation should have been classified as non-safety related #. The # sign would indicate the special requirements on the calibration of this instrumentation as required by the Offsite Dose Calculation Manual. ComEd has a program for assigning increasing levels of quality requirements for components at Nuclear Facilities. These provisions for increased quality requirements were not applied for this system. The failure of the initial classification led to the issuance of a Purchase Order to Vortex Technologies that did not carry the requirements of a quality program in the area of calibration control.

**CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:**

1. The installed instrumentation was removed and sent to a vendor who had an approved testing program for the flow instrumentation. The instrumentation was properly calibrated, returned to LaSalle, and reinstalled in the system on March 3, 1997.
2. A review of the as found data for the flow instrumentation was performed on February 20, 1997, to verify that past radwaste discharges were within the limits of the discharge permit. No discrepancies were identified.
3. The equipment classification of the flow instrumentation has been revised to reflect the need for augmented quality requirements in the design change package.



**CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS:**

1. A training General Information Notice (GIN) has been initiated for Site Engineering on this event to emphasize that when classifying instrumentation as non-safety related, the use of the output must be considered to ensure that any special requirements are documented. The GIN training will be completed by August 4, 1997.  
(NTS 373-100-97-00302b.01)

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:**

Full compliance was achieved when the flow meter was calibrated by an approved vendor on February 24, 1997.

**VIOLATION: 373/97003-03**

Technical Specification Surveillance Requirement 4.0.5 requires, in part, that inservice testing be performed in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR Part 50, Section 50.55a(g).

The LaSalle County Station Pump and Valve Inservice Testing Program, dated October 10, 1995, required that the residual heat removal (RHR) pump shutdown cooling suction valve, 1E12-F006A, be tested in the open direction on a quarterly frequency.

Technical Specification Surveillance Requirement 4.0.2 requires that each surveillance requirement be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified interval.

Technical Specification Surveillance Requirement 4.0.5.c states, in part, "the provisions of Specification 4.0.2 are applicable to the required frequencies for performing inservice testing activities."

Contrary to the above, on February 28, 1997, the licensee identified that testing of the RHR pump shutdown cooling suction valve, 1E12-F006A, was previously performed on October 10, 1996, and was not performed again until March 29, 1997, which exceeded the required quarterly test interval plus 25 percent maximum allowable extension.

This is a Severity Level IV violation (Supplement I) (50-373/97003-03).

**REASON FOR VIOLATION: 373/97003-03**

A Work Control Center SRO made a determination that the 1E12-F006A valve would have been stroked during a partial surveillance that had been performed on December 23, 1996, and would not be stroked with the RHR system in service and aligned as it was at the time. This mindset resulted from previous experiences in testing the valve along with the F008 and F009 valves when shutdown cooling was swapped from one train to the other or off. As a result, the Work Control Center SRO did not perform an adequate review of the partial surveillance from December to identify that the F006A valve had not been tested. This was an inadequate work practice in not seeking the facts or using available information objectively to determine facts. The Unit Supervisor who performed the test and the Unit Supervisor who reviewed the completed test shared in or accepted without adequate review, the Work Control Center SRO's determination.

Contributing causes were that the supervisor's and surveillance coordinator's attention to detail in adhering to the requirements of procedure LAP-100-29 "Conduct and Review of Station Surveillances" were inadequate. This includes review of the reasons some steps were marked not applicable and the identification of two December surveillances as Partial Tests rather than Whole Tests.

**CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:**

1. The 1E12-F006A valve was tested satisfactorily on March 29, 1997.
2. The personnel involved in the event were counseled by senior Operating Department management regarding the significance of the human performance deficiencies with regard to inadequate review of the test package information and lack of adherence to the requirements of LAP-100-29. Additional disciplinary action was taken.
3. Operating Management expectations and standards related to the performance and review of surveillance testing were reinforced with all licensed operators.

**CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS:**

No further corrective steps are planned.

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:**

Full compliance was achieved on March 29, 1997, with the successful testing of the F006A valve.

**VIOLATION: 373/97003-04**

Technical Specification Surveillance Requirements 4.5.2.1 and 4.5.1.a.2.a require, in part, that low pressure coolant injection (LPCI), Division 1, be demonstrated operable at least once per 31 days by performing a channel functional test of the LPCI discharge line "keep filled" pressure alarm instrumentation.

Technical Specification Surveillance Requirement 4.0.2 requires that each surveillance requirement be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified interval.

Contrary to the above, the licensee did not test the keep filled pressure alarm instrumentation within the required monthly test interval and maximum allowable extension. LaSalle Instrument Surveillance (LIS) RH-316A, "Unit 1 Residual Heat Removal (RHR) Pump 1A Discharge High/Low Pressure Functional Test," Revision 3, which tests the keep filled alarm instrumentation, was performed on December 28, 1996, and 59 days later on February 25, 1997, which was not within the required monthly test interval plus 25 percent maximum allowable extension.

This is a Severity Level IV violation (Supplement I) (50-373/97003-04).

**REASON FOR VIOLATION: 373/97003-04**

The General Surveillance Instrument Program (GSIN) data for this surveillance was incorrect in that it did not list LIS-RH-316A as being required with Unit 1 in Operating Condition 4 or 5. This difference in requirements between the GSIN program and the Technical Specifications occurred previously during development of the database. The error was not identified due to management deficiency in an inadequate validation and verification of the instrument surveillance program.

A work scheduler decided to delay the performance of LIS-RH-316A. This delay of the surveillance was not entered into the Instrument Maintenance (IM) Degraded Equipment Log (DEL) for the Instrument Department supervisor to review until after the critical date. This delay resulted from distractions of other work assignments. After the DEL was prepared, it did not receive management review as required to verify that changes to the surveillance schedule would not result in a non-conformance with the

Technical Specifications. These discrepancies occurred due to management deficiency in not establishing adequate methods and accountability to ensure that Technical Specification surveillance requirements were completed as required or tracked to completion and human performance errors in not adhering to procedural requirements to initiate and review an IM DEL prior to the date surveillance LIS-RH-316A was due.

**CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:**

1. The GSIN program data has been revised to correctly list surveillance LIS-RH-316A as required in Operating Condition 1, 2, 3, 4, 5 and 7.
2. Personnel involved in the event have been counseled by senior station management on the need for strict procedural adherence in preparing and reviewing the IM DEL.
3. The tracking and scheduling of all LaSalle Station Technical Specification surveillances have been assigned to a qualified test coordinator to provide a single point of accountability.

**CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS:**

1. The GSIN database will be validated and consolidated into the plant's Electronic Work Control System by September 29, 1997, to provide a single program for the administration of all Technical Specification surveillance testing. Use of the GSIN database will then be discontinued. (NTS 373-180-97-007.01LER)
2. The methods used by the various station departments with responsibilities for reviewing Technical Specification surveillances that will not be performed by the due date will be revised to ensure that the surveillances are properly dispositioned. The present procedures or practices will be consolidated into a single administrative procedure. This will be completed by June 30, 1997. (NTS 373-180-97-007.04LER)

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:**

Full compliance was achieved on March 21, 1997, when the GSIN program for surveillance LIS-RH-316A was corrected.