Commonwealth Edison
LaSalle County Nuclear Station
2601 N. 21st. Rd.
Marseilles, Illinois 61341
Telephone 815/357-6761

August 4, 1994

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: LaSalle County Station Units 1 and 2
Response to Notice of Violation
Inspection Report Nos. 50-373/94011; 50-374/94011
NRC Docket Numbers 50-373 and 50-374.

References: 1. E. G. Greenman letter to R.E. Querio,
Dated July 5, 1994, Transmitting
NRC Inspection Report 50-373/94011; 50-374/94011.

Enclosed is Commonwealth Edison Company's response to the Notice of Violation (NOV) which was transmitted with the Reference 1 letter and NRC Inspection Report. Reference 1 identified a violation concerning inadequacies in the corrective actions program during events involving local leak rate test errors and independent verification deficiencies in a miswiring activity involving the RHR system full flow test valve position computer point. I would like to summarize some of the actions we have taken, or will take, to accomplish overall improvements in our performance in the corrective actions area.

LaSalle County Station has recognized the need to speed improvements in our corrective action process. Our concentrated focus has been on making our corrective action system function in a timely and proactive manner. Making this system focus on the completeness and quality of initial corrective actions requires an exponential increase in what we expect of ourselves and the augmented standards to which we hold all station personnel accountable. It was common to identify only a single apparent cause of failure in each instance, and it had been customary to view each instance as an isolated occurrence. It was not customary among engineering or maintenance personnel to seek a true root cause beyond the immediate failure mechanism. We have now moved beyond the short term fix and the "living with" mentality.

The Integrated Reporting Program (IRP) has undergone extensive procedure revisions and staff augmentation. Guidance for thresholds and trending have been clarified to all department heads. The focus given thus far has resulted in improvements in the corrective action process in several areas. In problem identification, a greater openness to input and input from all levels of site workers is being seen. As an interim measure, in February 1994 we upgraded our corrective action process to include a review of events by senior management. Problem events, as reported on the Problem Identification Form (PIF), are reviewed during the daily Event Screening Meeting (ESM) by senior managers. Senior

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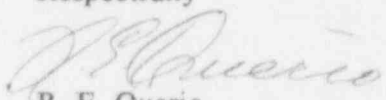
management takes an active role in the screening and evaluation of events so that proper emphasis and problem ownership may be assigned for resolution on a timely basis. Screening, assignment, and investigation has become more challenging, thorough, and standardized. Investigation quality has been improved. A dedicated and experienced root cause analysis group composed of site and contractor personnel is now in place and their role in the Integrated Reporting Program has been procedurally established and clearly defined. This group will eventually be composed of ComEd personnel as qualified individuals are located. The timeliness and prioritization of corrective action implementation have been weak points in our process and continues to require senior management focus. A new database is being implemented to improve tracking of corrective actions and to aid in clarifying expectations, priorities and ownership.

As the new Site Vice President, the area of commitment timeliness and effective corrective actions has my utmost attention. I have made my expectations clear to all levels of the site organizations that meeting commitments and other planned actions on time is a requirement. Since the corrective action process is multi-faceted and responsibilities cross organizational lines, this will only be accomplished through close review of workload, resources, and appropriate prioritization. While these are becoming a part of our culture at LaSalle, it is and must be a continually evolving process.

As LaSalle County Station strives to provide long term corrective actions that encompass the specific root causes, our utmost focus will be that enhanced corrective actions and our self assessment efforts will result in a meaningful improvement in the station's ability to identify, evaluate, and correct problems and deficiencies that will preclude other incidents from occurring at LaSalle County Station.

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

Respectfully



R. E. Querio
Site Vice President
LaSalle County Station

cc: J. B. Martin, Regional Administrator, Region III
A. T. Gody Jr., Project Manager, NRR
P.G. Brochman, Senior Resident Inspector, LaSalle
D. L. Farrar, Nuclear Regulatory Services Manager, NORS
L.F. Gerner, Regulatory Assurance Supervisor, LaSalle

ATTACHMENT
RESPONSE TO NOTICE OF VIOLATION
NRC INSPECTION REPORT
50-373/94011, 50-374/94011

VIOLATION: 373(374)/94011-01

During an NRC inspection conducted on April 19 through May 27, 1994, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the violation is listed below:

10 CFR Part 50, Appendix B, Section XVI states, in part, "In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition"

Contrary to the above:

a. Corrective actions taken for local leak rate test (LLRT) errors, which caused the draining of approximately 650 gallons of cycled condensate to the reactor vessel on September 13, 1993, did not preclude repetition. Similar deficiencies during LLRTs caused overstressing of a motor operated valve in the residual heat removal(RHR) system on May 4, 1994, and creation of a drain path from the reactor vessel on May 10, 1994.

b. Corrective actions for independent verification deficiencies, which caused miswiring events on July 7, 1993 and August 5, 1993, did not preclude repetition. Despite independent verification, another miswiring occurred on April 6, 1994, involving the RHR system full flow test valve position computer point.

This is a Severity Level IV violation (Supplement 1).

REASON FOR VIOLATION: 373(374)/94011-01 (LLRT Event)

Late in 1993 while Unit 2 was in its fifth refuel outage L2R05, an error occurred during the performance of a Local Leak Rate Test (LLRT) which resulted in the inadvertent addition of water into the reactor vessel while the system was being filled in preparation for testing. As a result of the LLRT event, all Local Leak Rate Testing activities were suspended and a root cause investigation was performed to identify all factors associated with the error and to provide interim and long term recommendations/corrective actions. The interim recommendations were immediately implemented and Local Leak Rate Testing activities resumed. Following this event, no further errors occurred during L2R05.

The root cause evaluation provided 18 corrective actions to be implemented to prevent recurrence of this type of event. Subsequent to Unit 2 startup from L2R05, LaSalle Station implemented 5 of the 18 corrective actions recommended by the evaluation team. LaSalle Station intended to implement the remaining corrective actions prior to the start of the next refuel outage (Unit 1 L1R06 scheduled for 3/18/94) but due to unplanned shutdowns of each unit during the inter-outage interval, this became impossible to accomplish within that time frame.

At the start of Unit 1 refuel outage L1RO6, the corrective actions status was reviewed and it was determined that the implemented changes would be adequate to continue with Local Leak Rate Testing activities for L1R06 with an accepted delay for the remainder of the corrective actions. These delayed corrective actions primarily involved :

Revision to the LLRT practices and procedures to require Administrative Control of boundary valves for testing purposes (i.e. Out-of-Service Cards (O.O.S.), Caution Cards, etc). The process in use relied on a procedure checklist for valve lineup without any field identification for required valve positions.

Transfer of the responsibility for execution of LLRT procedures to the station operating department. This would allow use of operations normal Command and Control structure. This proposed change was the development of a LLRT team concept which was in the early stages of development.

During Unit 1 refuel outage L1R06, two errors occurred during Local Leak Rate Testing due to inadequate communications. These errors occurred within several days of each other.

In the first event, a valve in the LLRT lineup was operated against excessive differential pressure. The LLRT was stopped. Although neither the valve nor the actuator were damaged, additional resources were expended to evaluate the condition of the valve and the actuator, and to determine the cause of the error. The interview with the procedure director (a contract LLRT engineer) revealed that the engineer knew the intent of the original procedure wording, and understood the objective of avoiding a valve open attempt with excessive differential pressure. The engineer indicated that he alone had a temporary mental lapse that caused him to misinterpret the procedure steps when giving instruction to the plant operator. The individuals involved were counseled regarding communication and procedural adherence expectations. Because the LLRT program at that time was well into its later stages, with no previous problem and had, in fact, been executed with far fewer problems than in past outages, the conclusion that the event was isolated was accepted and the program continued.

The second event resulted from inadequate communication. In this event a drain path from the reactor pressure vessel (RPV) was created which allowed water inventory to be diverted. Actual inventory change was minimal due to the very small size of the draindown path (3/4' inch line routed to a floor drain), but the seriousness of the error and its broader implications when combined with the previous event resulted in stoppage of LLRT program activities and an extensive investigation was conducted. Upon completion of the evaluation, interim and long term corrective actions were recommended to prevent recurrence. The interim corrective actions primarily consisted of Administrative Controls of Local Leak Rate Test boundaries associated with the reactor vessel, procedural enhancements, and communication enhancements. The Administrative Controls action taken was one of the corrective actions being considered that was deferred from recommendations resulting from the L2R05 events The interim corrective actions were implemented, and LLRT test activities were resumed. After implementation of the interim corrective actions, no additional errors or problems were encountered for the remainder of the L1R06 LLRT testing.

CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED (373(374)/94011-01):

Immediate Corrective Actions:

1) All Local Leak Rate Testing activities were stopped to allow for evaluation and additional corrective actions.

Interim Corrective Actions:

1) All LLRTs, in which a potential to alter Reactor or Fuel Pool inventory exists, were controlled by O.O.S.'s. The O.O.S.'s were verified by the LLRT Test Director prior to each LLRT being performed.

2) Communication Enhancements:

   a.) Shift briefings were performed every shift with all individuals who were associated with each LLRT.

   b.) The LLRT Test Director clarified and confirmed the requirements for three-way repeat backs during each valve manipulation whether in the control room or in the field.

   c.) During each shift briefing a link was established between the LLRT Test Director and a LLRT cognizant NSO each of whom were named for each shift. All communication between the LLRT personnel and the control room were made by the LLRT Test Director and the LLRT cognizant NSO only.

CORRECTIVE ACTIONS TO BE TAKEN TO AVOID FURTHER VIOLATIONS (373(374)/94011-01):

Permanent Corrective Actions:

Note that the permanent corrective actions consist largely of the implementation of those corrective actions which had been deferred from the L2RO5 water injection event (i.e. not implemented prior to L1R06). These actions have been modified slightly and worked out by a team of Operations, Maintenance, and Engineering personnel.

1) All LLRT procedures involving control room valve manipulations will be revised. These revisions will include:

   a.) Steps and sign-offs for all control room valve manipulations by Operating and verification of specific valve manipulation by Engineering.

   b.) The NSO will be provided a separate attachment to the procedure which lists each control room valve manipulation with a brief explanation of what each manipulation is for and an appropriate sign-off.

   c.) Each procedure will include special Test Director sign-offs. They will be used as a way to ensure major portions of the procedure are completed before the next major portion of the procedure can continue. This will make the Test Director practice the "STAR Program" at important intervals within each procedure.

2) Development of a LLRT team concept for the performance and direction of test activities. This will become an Operations activity supported by other departments, and will provide the needed Operations command and control of LLRT activities.

3) Other specific details associated with the corrective actions recommended in these L2RO5 and L1R06 LLRT events will be evaluated and dispositioned.

The above corrective actions will be fully implemented by the start of the next LaSalle refuel outage (Unit 2 L2RO6) scheduled for February of 1995.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED (373(374)/94011-01):

Full compliance was achieved during L1R06 with the implementation of the interim Corrective Actions. These Corrective Actions are in place and will be exercised for any additional LLRTs.

REASON FOR VIOLATION: 373(374)/94011-01 (Miswiring Event)

In response to this example of the violation on 10CFR50, App. B Section XVI (corrective actions) for independent verification deficiencies, the violation is based on (2) two miswiring events from 1993 and on a issue that occurred during the most recent refuel outage (L1R06).

In 1993 two miswiring events occurred relating to interposing relay modifications being installed. The scope of the work involved removing an old relay and replacing it with a new one. The Independent Verification (IV) process at that time was not done per LAP 100-30 but by another accepted and approved Independent Verification (IV)method. The process being used did not adequately address Independent Verification (IV) of lifting/landing electrical leads. The old relays that were removed had similar relay terminal configuration, but a different contact arrangement to the terminals. The process the electricians employed to verify the terminal and contact configuration was to field verify open/closed contacts with a meter. The error occurred when they had no effective mechanism to mark the terminals opened or closed. This resulted in the inability to correctly determine the proper terminal to contact placement after the relay was installed. The Independent Verification (IV) failed to recognize the dissimilarity, and accepted the installation as correct compared to the original installation. The major corrective action was to add the Independent Verification (IV) procedure (LAP 100-30) to work instructions to ensure that activities involving electrical lead handling are properly verified.

The issue cited in the L1R06 event on the 1A RHR Full Flow Test Stop Valve (1E12-F024A) was that the independent verification process was ineffective. The basic tools (prints, instructions, including IV) were all provided to the personnel performing the activity. The application of the independent verification process (LAP-100-30) was employed, however the individual performing the IV missed the incorrectly landed wire through personnel error. Both individuals were counseled after the event and a root cause investigation was conducted. The individuals involved were experienced in this particular job activity (valve work) and were generally dedicated in this area. All wiring was checked by Electrical Maintenance management after the event occurred and it was verified that all wires that were removed had been marked per the applicable print and all procedures were followed. Since this type of valve work activity is followed by post maintenance testing (PMT), during which this miswiring was identified, other jobs performed by these individuals were completed satisfactorily based on their initializing and implementing the Independent Verification (IV) and the PMT.

Even before this event occurred in 1994, the Electrical Maintenance Department (EMD) reviewed previous corrective actions (interposing relay modifications) to determine whether the actions were effective. The Electrical Maintenance Department concurred with the actions taken in the past, but questioned how the Independent Verification process may present barriers to our personnel. The Electrical Maintenance Department discussed the use of the independent verification process at that time and again recently with management and union personnel. The individuals indicated that the independent verification process was not difficult to perform but could be enhanced with a single method to identify terminals,

contacts, etc. during the wiring and independent verification process. It's a very basic concept, as long as the "Tools" are provided the work can be completed with no problems. The Electrical Maintenance Department did not limit its review solely to LaSalle. Three other ComEd sites (Byron, Braidwood, and Dresden) were contacted to see how they perform the independent verification process. Through discussions, site personnel at these plants indicated that they perform the IV process similar to LaSalle.

CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED (373(374)/94011-01):

1) The individuals involved were counselled.

2.) WR L28697 was written to land the leads at the proper terminals.

3.) EMD stressed the importance of self checking as a means to avoid this type of event in the future.

CORRECTIVE ACTIONS TO BE TAKEN TO AVOID FURTHER VIOLATIONS (373(374)/94011-01):

1) Additional enhancements will be made relating to Independent Verification of lifting/landing electrical leads. The following will be implemented by L2RO6

   a) Integrate the independent verification process into work instructions on pre-planned work requests.

   b) Establish wire/cable identification work practice to provide consistent implementation of the independent verification process.

   c) Streamline the lifted and landed lead process to consolidate requirements and expectations into a concise, easily understandable maintenance document

   d) Consolidate the multiple versions of lifted leads sheets into one, that is consistent with the integration of the independent verification process.

   e) Provide training on the expectations with respect to independent verification and lifted/landed leads.

2) Review applicability to Instrument Maintenance, Operational Analysis Department (OAD) and Substation Construction for the items identified above.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED (373(374)/94011-01):

Full compliance was achieved during L1R06 after counselling the individuals involved and ensuring the IV process, if accurately employed, would provide the necessary support to prevent recurrence.