November 15, 1996

EA 96-392
EA 96-393

Mr. W. T. Subalusky, Jr.
Site Vice President
LaSalle County Station
Commonwealth Edison Company
2601 North 21st Road
Marseille[illegible], IL 61341

SUBJECT: SYSTEM OPERATIONAL PERFORMANCE INSPECTION (NRC INSPECTION REPORT NO. 50-373/96011(DRS); 50-374/96011(DRS))

Dear Mr. Subalusky:

This refers to the system operational performance inspection (SOPI) conducted by V. P[illegible]gheed, H. A. Walker, and others of this office from September 3 through 24, 199[illegible]. The inspection included a review of activities authorized for the LaSalle Nuclear Power Station. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the enclosed report.

The team assessed the service water system's (SWS) operational performance by a detailed review of the SWS's design, maintenance, operation, surveillance and testing. The team also assessed the planned or completed actions for LaSalle in response to Generic Letter (GL) 89-13, "Service Water System Problems Affecting Safety Related Equipment."

The team identified a number of issues that alluded to a fundamental deficiency in understanding the design basis of the safety related SWS at LaSalle. The issues crossed functional areas and the team identified occasions where multiple departments within your organization had the opportunity to recognize these problems, but failed to do so. It appeared that your organization, when faced with an opportunity to identify a problem, often compounded the issue.

The team's review indicated poor practices within the maintenance area where work was not properly controlled and where design changes were inappropriately implemented as maintenance repairs. Furthermore, the team identified inadequate surveillances which did not appear to achieve the requirements of the Technical Specifications, but were accepted by your staff. In regard to testing performed to meet GL 89-13 commitments, your staff appeared to have only a rudimentary understanding of the testing's purpose, leading to inappropriate trending of heat exchanger performance.

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Within the engineering area, the team observed an underlying deficiency where, apparently, the organization charged with maintaining the design basis was unclear as to what it was. This ranged from inaccurate calculational assumptions to differing assumptions from one calculation to the next. In response to questions, the team was provided calculations for components that did not exist. Also, your staff was unaware that the updated final safety analysis, the legal documentation of the design basis for LaSalle, was not updated following a Technical Specification amendment in 1989.

The team did note some positive responses within the Operations area, especially in the thorough review of Technical Specification clarifications. However, it was noted that licensed personnel failed to question actions taken by other departments which affected the operability of the system, such as the leveling of silt within the circulating water bays which appeared to subvert the Technical Specification surveillance requirement, and testing two of eight pumps differently because of a failed discharge valve.

Based on the results of this inspection, four apparent violations were identified and are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. As described in Sections M2.1 through M2.6 of the enclosed report, these violations all stem from a 1992 modification, performed as a maintenance work activity, which impacted the performance characteristics of the 2A residual heat removal service water (RHRSW) pump. NRC first identified these issues during review of an inservice testing procedure which improperly concluded that dual pump testing met the ASME Boiler and Pressure Vessel Code requirements. This in turn led to the discovery that the 2A pump discharge isolation valve had failed and had not been repaired, and that surveillance procedures were revised to work around the failed component. In examining why one of eight identical valves had failed, NRC learned of the 1992 work activity which replaced the 2A RHRSW pump impeller with one which had a larger diameter without recognizing that this was a design change. The larger impeller increased flow in the system by several hundred gallons per minute, beyond the range of the installed flow instrumentation. We further noted that surveillances, completed on the 2A RHRSW pump since the pump impeller was modified, documented that the flow was above the top of the scale. Your staff did not question why this occurred, nor take any actions to correct the problem. We concluded that this sequence of actions, starting with the replacement of the RHRSW pump impeller outside of the design change process, leading to increased flow rates that pegged gauges and destroyed a gate valve, and culminating in inadequate test controls and a failure to meet a technical specification surveillance requirement represented an apparent breakdown in quality activities associated with the RHRSW system.

Our review of the circumstances surrounding these apparent violations concluded that the root causes were similar to those which you discussed with us during the predecisional enforcement conference on September 27, 1996, on the service water grouting issue. We further concluded that the broad corrective actions to address those root causes could also

correct the fundamental issues behind these specific apparent violations. As a result, it may not be necessary to conduct a separate predecisional enforcement conference in order to enable the NRC to make an enforcement decision regarding these specific issues. Therefore, a Notice of Violation is not presently being issued for these inspection findings. Before the NRC makes its enforcement decision, we are providing you an opportunity to either (1) respond to the apparent violations addressed in this inspection report within 30 days of the date of this letter or (2) request a predecisional enforcement conference. Please contact Mr. Mark Ring at (630) 829-9703 within seven days of the date of this letter to notify the NRC of your intended response.

Your response should be clearly marked as a "Response to Apparent Violations in Inspection Report No. 50-373/96011(DRS); 50-374/96011(DRS)" and should include for each apparent violation: (1) the reason for the apparent violation, or, if contested, the basis for disputing the apparent violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response should be submitted under oath or affirmation and may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision or schedule a predecisional enforcement conference.

In addition, please be advised that the number and characterization of apparent violations described in the enclosed inspection report may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

In addition to the above apparent violations, other activities appeared to be in violation of NRC requirements, as specified in the enclosed Notice of Violation (Notice). The violations are of concern because they indicate an extensive lack of knowledge throughout your organization as to what constitutes your design basis. These violations range from a current example where a design change was performed under the maintenance process to incorrect assumptions in calculations because your staff was unaware of a modification installed several years previously. We also identified several examples where appropriate test controls were not applied, either in specifying acceptance criteria or evaluating test results. Additionally, we identified that the updated safety analysis report had not been revised following your being granted a license amendment in 1989 and that a proceduralized interpretation resulted in your not completely meeting a technical specification surveillance requirement for several years.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

Additionally, we request that you respond to four items where NRC has determined to need more information to determine if regulatory requirements were met. The first item involves a potential water hammer on the tube side of the residual heat removal (RHR) heat exchanger. For this item we request that you supply the results of your operability analysis and supporting calculations. The second item involves the availability of offsite power if a fire occurs in Fire Zone 5C11: Diesel Generator Corridor. According to your staff, the assumption of loss of offsite power in this scenario is conservative; however, this is not reflected in your Fire Hazards Analysis. We request that you confirm in writing that normal power will not be affected by a fire in this location.

In regard to the third item, the inspection team noted that flow through the safety-related room coolers was not balanced and that the effect of the RHRSW system on the coolers had not been adequately tested or analyzed. We request that you provide more information on how the maximum flow through the 1(2)VY04A room cooler was determined and a more structured review of the effects of the RHRSW back pressure on the room coolers to ensure adequate flow through all the room coolers under all conditions where they would be required to operate. The last item involves your response to a comment on the maximum RHRSW flow which indicated that flow through the RHR heat exchanger was affected by lake level. We request that you confirm that your surveillance procedures adequately account for this effect.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if you choose to provide one) will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

Sincerely,

Original signed by Geoffrey E. Grant

Geoffrey Grant, Director
Division of Reactor Safety

Docket No. 50-373
Docket No. 50-374

Enclosures: 1. Notice of Violation
2. Inspection Report
No. 50-373/96011(DRS);
No. 50-374/96011(DRS)

See Attached Distribution

SEE PREVIOUS CONCURRENCES

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cc w/encls: D. A. Sager, Vice President,
Generation Support
H. W. Keiser, Chief Nuclear
Operating Officer
D. J. Ray, Station Manager
J. Burns, Regulatory Assurance
Supervisor
I. Johnson, Acting Nuclear
Regulatory Services Manager
Document Control Desk - Licensing
Richard Hubbard
Nathan Schloss, Economist,
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DATE	11/6/96	11/8/96	11/7/96	11/6/96	11/ /96

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