

January 9, 2002

Mr. Oliver D. Kingsley, President
Exelon Nuclear
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION
NRC SUPPLEMENTAL INSPECTION REPORT 50-374/01-18(DRP)

Dear Mr. Kingsley:

On December 14, 2001, the NRC completed a supplemental inspection at LaSalle County Station. The results of this inspection were discussed on December 14, 2001, with Mr. C. Pardee and other members of your staff. The enclosed report presents the results of that inspection.

In October 2001, your performance indicator submittal reflected that LaSalle Unit 2 had exceeded the Green/White threshold for the Unplanned Scrams Per 7,000 Critical Hours performance indicator. Exceeding the Green/White performance indicator threshold represented a reduction in safety margin for this performance indicator and adversely impacted the initiating events cornerstone. The reduced safety margin associated with this performance indicator warranted a supplemental inspection and an assessment of your actions to improve performance under the Initiating Events Cornerstone within the Operational Reactor Safety Strategic Performance Arena.

Based on our review of Exelon's common cause evaluation for 10 individual plant scrams, we have concluded that your staff adequately identified the underlying root and contributing causes for these events. The common cause evaluation was generally thorough and followed an established, structured approach for performing such reviews. We also concluded that your staff's planned corrective actions, if properly implemented, are sufficient to adequately address each of the identified common causes.

While the common cause evaluation was generally thorough, we identified that it did not include an effectiveness review of past corrective actions for the individual scrams. As a result, a problem in the implementation or effectiveness of corrective actions to individual plant scrams may have existed which could have contributed to subsequent scrams. We concluded that this was a missed opportunity to more fully understand the potential impact of contributing factors on the occurrence of individual plant scrams. We also observed that underlying issues identified in the common cause analysis report had been previously identified and corrective actions to address these problems had not always been completely effective. Additional attention in this area appears to be warranted.

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Sincerely,

Original signed by
Bruce L. Burgess

Bruce L. Burgess, Chief
Branch 2
Division of Reactor Projects

Docket Nos. 50-373; 50-374
License Nos. NPF-11; NPF-18

Enclosure: Inspection Report 50-374/01-18(DRP)

cc w/encl: W. Bohlke, Senior Vice President, Nuclear Services
C. Crane, Senior Vice President - Mid-West Regional
J. Cotton, Senior Vice President - Operations Support
J. Benjamin, Vice President - Licensing and Regulatory Affairs
R. Hovey, Operations Vice President
J. Skolds, Chief Operating Officer
K. Jury, Director - Licensing
R. Helfrich, Senior Counsel, Nuclear
DCD - Licensing
C. Pardee, Site Vice President
M. Schiavoni, Station Manager
W. Riffer, Regulatory Assurance Supervisor
M. Aguilar, Assistant Attorney General
Illinois Department of Nuclear Safety
State Liaison Officer
Chairman, Illinois Commerce Commission

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-374
License No: NPF-18

Report No: 50-374/01-18(DRP)

Licensee: Exelon Generation Company

Facility: LaSalle County Station, Unit 2

Location: 2601 N. 21st Road
Marseilles, IL 61341

Dates: December 10 through December 14, 2001

Inspector: E. Duncan, Senior Resident Inspector

Approved by: Bruce L. Burgess, Chief
Branch 2
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000374-01-18(DRP); on 12/10-12/14/2001; Exelon; LaSalle County Station; Supplemental Inspection for Unit 2 White Performance Indicator for Unplanned Scrams Per 7,000 Critical Hours.

This report covers the supplemental inspection performed by the NRC to assess the licensee's evaluation of the Unit 2 Performance Indicator (PI) for Unplanned Scrams Per 7,000 Critical Hours exceeding the Green/White threshold. The inspection was conducted by the LaSalle Senior Resident Inspector in accordance with Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area." The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>. Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation.

Cornerstone: Initiating Events

- The licensee's overall evaluation of the White Performance Indicator for the Unplanned Scrams Per 7,000 Critical Hours was acceptable. A structured approach was utilized to identify potential common causes by evaluating the circumstances of the individual plant scrams and their collective significance. The licensee's corrective actions for the common causes were determined to be acceptable and were found to be either completed or being tracked for completion.
- While the licensee's corrective action program included a process for performing reviews to assess the effectiveness of corrective actions implemented in response to the common cause evaluation, the common cause evaluation did not review the effectiveness of past corrective actions for root causes of the individual scrams. As a result, a problem in the implementation or effectiveness of corrective actions may have existed which contributed to subsequent scrams. This was a missed opportunity to more fully understand potential contributing factors to the scrams that occurred. (Section 02.02.b)

Report Details

01 Inspection Scope

This supplemental inspection was performed by the NRC to review the licensee's evaluation associated with the Unit 2 Performance Indicator (PI) for Unplanned Scrams Per 7,000 Critical Hours exceeding the licensee response band threshold. The five scrams which occurred within the previous 7,000 critical hours which resulted in exceeding the PI threshold are discussed below along with a synopsis of the identified root cause:

- On December 1, 2000, Unit 2 automatically scrammed when the main turbine tripped on high reactor water level while placing the 2B turbine-driven reactor feedwater pump online. The licensee conducted a root cause investigation of the event and identified two root causes. A human performance component, primarily related to inadequate preparation for the evolution and a poor design coupled with the degraded material condition of the feedwater and reactor water level control systems. Additional details regarding this event are discussed in NRC Inspection Report 50-373/00-19; 50-374/00-19 and Licensee Event Report (LER) 50-374/00-06.
- On April 6, 2001, Unit 2 automatically scrammed due to a blown fuse in the feedwater control system during feedwater system maintenance. Some equipment performance problems were noted subsequent to the reactor scram and a special inspection was initiated in accordance with Inspection Procedure 93812, "Special Inspection." The licensee's investigation concluded that the root cause of the event was an inadequate maintenance risk assessment of the work. Additional details regarding this event are discussed in NRC Special Inspection Report 50-374/01-09 and LER 50-374/01-01.
- On May 27, 2001, Unit 2 automatically scrammed when the main turbine tripped on high vibration during routine turbine surveillance testing. The licensee's investigation concluded that the root cause for the event was electro-hydraulic fluid contamination of a connector for a turbine control valve (TCV) in conjunction with a higher than normal baseline vibration during TCV testing. Additional details regarding this event are discussed in NRC Inspection Report 50-373/01-08;50-374/01-08 and LER 50-374/01-02.
- On September 3, 2001, Unit 2 was manually scrammed following an unexpected loss of Division 1 Bus 241Y which caused a loss of normal feedwater controls. During the event, a number of equipment performance anomalies occurred and a special inspection was initiated in accordance with Inspection Procedure 93812. The licensee's investigation concluded that failed potential transformer fuses, in the Unit 2 Division 1 undervoltage protection circuit, led to the scram. Additional details regarding this event are discussed in NRC Special Inspection Report 50-374/01-17 and LER 50-374/01-03.
- On September 7, 2001, Unit 2 was manually scrammed after isolating two feedwater heater strings. The licensee's investigation concluded that operating procedures failed to contain appropriate direction to operators regarding reactor power limitations with the heater drain system in other than the normal lineup. Additional details regarding this

event are discussed in NRC Inspection Report 50-373/01-11;50-374/01-11 and LER 50-374/01-04.

The Unit 2 scrams discussed above resulted in the PI crossing into the White band. This supplemental inspection was performed in accordance with Inspection Procedure 95001. The following details are organized by the specific inspection requirements of Inspection Procedure 95001 which are noted in each section.

02 Evaluation of Inspection Requirements

02.01 Problem Identification

- a. Determination of who (i.e., licensee, self-revealing, or NRC) identified the issue and under what conditions.

All of the scrams were self-revealing events.

- b. Determination of how long the issue existed, and prior opportunities for identification.

The LaSalle Unit 2 Performance Indicator for Unplanned Scrams Per 7,000 Critical Hours exceeded the licensee response band Green/White threshold as reported in the October 2001 performance indicator submittal. No prior opportunities for the identification and reporting of this issue existed.

- c. Determination of the plant-specific risk consequences (as applicable) and compliance concerns associated with the issue.

In response to each of the five reactor scrams, the inspectors observed plant parameters and status, including mitigating systems and fission product barriers, and evaluated the performance of mitigating systems and licensee actions. For scrams which occurred on December 1, 2000; May 27, 2001; and September 7, 2001, the inspectors determined that all systems responded as designed, the scrams were not complicated by material condition deficiencies, and no human performance errors complicated the event response. For the remaining scrams on April 6 and September 3, 2001, a number of equipment performance anomalies and/or human performance errors occurred. As a result, the events were reviewed in more detail and were the subject of special inspections conducted in accordance with Inspection Procedure 93812, "Special Inspection." The NRC concluded that each individual event was of low risk-significance.

The licensee completed SA-816, "LaSalle Unit 2 Scram Rate Significance Analysis," on December 12, 2001, which reviewed the risk significance of the period of operation of Unit 2 when a high number of scrams occurred. The report concluded that although the identified scrams impacted the initiating events contributor to core damage frequency (CDF), the resultant increase in CDF was below the Nuclear Energy Institute (NEI) Application Guide threshold. Therefore, the licensee concluded that further analysis was not warranted.

The inspector reviewed report SA-816 and provided details of the report to the region-based risk analysts. No concerns were identified.

02.02 Root Cause and Extent of Condition Evaluation

a. Evaluation of method(s) used to identify root cause(s) and contributing cause(s).

The licensee performed a common cause analysis for the five Unit 2 scrams which resulted in the performance indicator crossing the Green to White threshold. The licensee also assessed five additional Unit 1 and Unit 2 scrams which had occurred since the restart of Unit 2 from refueling outage L2R07. The following root cause reports (RCRs) were reviewed:

- RCR L1999-4002 Unit 2 Scram Due to Failure of the 2A Turbine-Driven Reactor Feedwater Pump (TDRFP) Hydraulic Control System.
- RCR L1999-4173 Unit 1 Scram Due to Human Performance Errors During TDRFP Servo Preventative Maintenance.
- RCR L1999-5708 Unit 2 Scram Due to Electro-Hydraulic Control System Circuit Card Failure.
- RCR L2000-3414 Unit 2 Scram Due to Foreign Material in the TDRFP Hydraulic Control System.
- RCR L2000-6981 Unit 2 Scram Due to Inadequate Preparation Prior to Placement of a TDRFP On-Line Following L2R08.
- RCR L2001-0604 Unit 1 Scram Due to Underslung Support Insulator Failure.
- RCR L2001-2137 Unit 2 Scram Due to Blown Fuse in the Feedwater System Logic During Maintenance.
- RCR L2001-3135 Unit 2 Scram Due to High Main Turbine Vibration During Surveillance Testing.
- RCR L2001-5059 Unit 2 Scram Due to Blown Fuse Associated With Electrical Bus 241Y Undervoltage Potential Transformer.
- RCR L2001-5124 Unit 2 Scram Due to Heater Drain System Isolation.
- RCR L2001-3288 Ten Reactor Scrams Since Restart of Unit 2 From L2R07 Due to a Number of Organizational and Management Issues.

The licensee employed a “stream analysis” approach to identify conditions that led up to the scrams, identify relationships among the events, identify critical actions that if performed correctly would have prevented the event from occurring or would have

significantly reduced its consequences, and systematically checked that all possible causes of problems had been considered.

The inspector reviewed the methods employed and concluded that a formal, structured approach was utilized to perform the common cause analysis to identify root causes and contributing factors.

b. Level of detail of the common cause evaluation.

The licensee's common cause investigation, as outlined in the investigation charter, was to confirm root causes and corrective actions for the last 10 reactor scrams, evaluate potential Unit 1 and Unit 2 differences (since 8 of the last 10 scrams were associated with Unit 2), and perform an aggregate analysis for additional root causes and corrective actions to restore scram rate and other production losses to within industry norms. The scope of the common cause investigation was to address and further clarify previously identified deficiencies through a review of root cause reports for the 10 Unit 1 and Unit 2 reactor scrams which had occurred since the end of refueling outage L2R07, determine the causes of less than expected levels of human performance that were exhibited during those scrams, and determine any other organizational and management weaknesses that may have contributed to the scrams.

The inspector determined that the common cause analysis report identified a number of underlying issues that had not been identified in the individual root cause reports for specific plant scrams. However, the inspector also determined that the common cause investigation did not review the effectiveness of the corrective actions associated with the individual scram root causes. As a result, the licensee was not able to determine whether a problem in the corrective action program may have contributed to subsequent scrams due to the same or a similar root cause. The inspector concluded that this was a missed opportunity to more fully understand potential contributing factors to the scrams which were reviewed.

c. Consideration of prior occurrences of the problem and knowledge of prior operating experience.

The licensee performed a common cause analysis to identify the common causes for the five Unit 2 scrams which resulted in the performance indicator crossing the Green to White threshold. The licensee also included five additional scrams, which had occurred previous to that, in their analysis.

The inspector identified that the licensee had previously identified some of the underlying issues identified in its common cause analysis report. Corrective actions to address these problems had not been completely effective.

For example, problems in the quality of the review of Operating Experience (OPEX) information had been identified both internally and by outside sources on a number of occasions and was again identified in the common cause analysis as a significant underlying problem. However, corrective actions to address these problems were not fully effective and as a result, two reactor scrams were attributed, in part, to inadequate response to OPEX information occurred. In addition, problems related to human

performance errors were attributed to a number of the scrams, despite the implementation of corrective actions to address similar human performance related errors. Also, concerns with the implementation of the maintenance risk assessment program had been identified, however, corrective actions to address this problem were not fully effective and as a result, a reactor scram occurred.

The inspector also identified, during a review of the May 27, 2001, Unit 2 scram on high turbine vibration root cause report, that the assessment ruled out poor use of an OPEX notification. The OPEX notification dealt with turbine trips on high vibration during testing resulting in reactor scrams, with a corrective action of bypassing the high vibration trips during testing. LaSalle station reasoned that since other contributing factors that led to the LaSalle scram were not identified in the OPEX notification, the implementation of the actions recommended in the OPEX notification would not have prevented the event. The inspector reviewed this decision and concluded that implementation of the recommended actions would have prevented the event and, as a result, the poor use of OPEX directly resulted in the event occurring.

d. Consideration of potential common cause(s) and extent of condition of the problem.

The licensee's common cause analysis was a collective evaluation of the events which caused the performance indicator to enter the White region. The following common causes were identified by the aggregate analysis:

- Continued delay in the correction of known problems without effective compensatory measures to mitigate risk.
- Slow correction of nonsafety-related, non-power generation, critical systems, structures, and components complicated normal operation and event mitigation.
- Maintenance planners and craft inadequately assess risk resulting in maintenance errors under flexible work instructions.
- Poor root cause analysis quality allowed repeat equipment failures that trigger significant events.
- Personnel non-compliance with expectations (work standards) undercuts defense-in-depth and triggers significant events.
- Human Performance fundamentals are not well performed resulting in operations and maintenance errors.
- The Operating Experience (OPEX) program has missed opportunities to prevent events.
- The quality of programs and procedures was not an underlying cause of the scrams.

The individual root causes reports for the specific scrams were determined to be adequate in identifying specific causes and appropriate corrective actions to prevent

recurrence of the specific events. However, they were not adequate in identifying common underlying themes that if corrected, may have prevented similar events with differing specific causes.

The inspector reviewed the common cause analysis and concluded that overall, the licensee adequately identified the common causes associated with the scrams reviewed.

02.03 Corrective Actions

a. Appropriateness of corrective action(s).

The licensee identified Corrective Actions to Prevent Recurrence (CAPRs) and Corrective Actions (CAs) to address each of the underlying causes identified in the common cause analysis.

The inspector reviewed the common cause analysis report and verified that each of the problems identified was tied to a clearly defined CAPR and/or CA which, if properly implemented, would address the problem.

b. Prioritization of corrective actions.

Prioritization of the corrective actions was not directly based on risk perspectives or analysis, but rather based on a deterministic approach considering the significance of the problem.

The inspector reviewed the prioritization of the corrective actions and verified that actions of a generally higher priority were scheduled for completion ahead of those of a lower priority.

c. Establishment of schedule for implementing and completing the corrective actions.

Following the completion of the common cause analysis, the licensee established a schedule for implementing and completing the corrective actions identified.

The inspector reviewed the schedule and the Action Tracking Matrix (ATM) items created to identify the corrective actions to be taken. The inspector verified that the corrective actions were assigned to appropriate individuals or organizations to ensure that the actions were taken in a timely manner and that a formal tracking system existed to ensure that each of the corrective actions was accomplished.

d. Establishment of quantitative or qualitative measures of success for determining the effectiveness of the corrective actions to prevent recurrence.

The licensee scheduled effectiveness reviews to validate the effectiveness of the overall corrective action plan. These reviews were scheduled to occur during the course of the implementation to the corrective actions to evaluate progress and identify possible changes that might be needed. A final review, following implementation of all of the corrective actions, was also scheduled.

The inspector verified that ATM items were created in the licensee's corrective action program to conduct the effectiveness reviews described above.

03 Management Meetings

Exit Meeting Summary

The inspector presented the inspection results to Mr. C. Pardee and other members of licensee management on December 14, 2001. The licensee acknowledged the findings presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

KEY POINTS OF CONTACT

K. Bartes, Nuclear Oversight Manager
D. Czufin, Assistant Site Engineering Manager
F. Gogliotti, Design Engineering Supervisor
R. Gilbert, Work Control Manager
G. Graff, Shift Operations Supervisor
G. Kaegi, Training Manager
C. Pardee, Site Vice President
G. Randle, Maintenance Manager
W. Riffer, Regulatory Assurance Manager
M. Schiavoni, Station Manager

ITEMS OPENED, CLOSED, AND DISCUSSED

Discussed

None

LIST OF ACRONYMS USED

ATM	Action Tracking Matrix
CA	Corrective Action
CAPR	Corrective Action to Prevent Recurrence
CDF	Core Damage Frequency
CR	Condition Report
DRP	Division of Reactor Projects
EHC	Electro-Hydraulic Control
IMC	Inspection Manual Chapter
GIN	General Information Notice
IR	Inspection Report
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NON	Nuclear Operations Notification
NRC	Nuclear Regulatory Commission
OPEX	Operating Experience
PI	Performance Indicator
RCR	Root Cause Report
SDP	Significance Determination Process
TCV	Turbine Control Valve
TDRFP	Turbine-Driven Reactor Feedwater Pump

LIST OF DOCUMENTS REVIEWED

Inspection Procedure 95001

Condition Reports (CRs)

- CR 00086988 Ineffective Corrective Action From Scram; December 14, 2001.
- CR 00084031 RCR [Root Cause Report] Identified Training Evaluation For Use of Trending; November 28, 2001.
- CR 00083962 RCR 53835 Identified Management Expectations Communication; November 26, 2001.
- CR 00083745 RCR 53835 Identified ACE [Apparent Cause Evaluations] Related to Equipment Be Reviewed By Engineering; November 28, 2001.
- CR 00084514 RCR 53835 Identified Potential RCR Method Determination Inadequate; November 29, 2001.
- CR L2000-03231 N.O. [Nuclear Oversight] Identified: RCR [Root Cause Report] and TIR [Trend Investigation Report] Did Not Follow CAP-3 & CAP-4; June 13, 2000.
- CR L2000-05217 3rd Quarter Maintenance Focused Self-Assessment/E-3 Walkdown Effectiveness; September 18, 2000.
- CR L2000-01521 Weakness With the Screening of Other Plant NONs [Nuclear Operations Notification]; March 28, 2000.
- CR L2000-04685 N.O. Identified: CR [Condition Report] Not Written For Potentially Applicable NON; August 22, 2000.
- CR L2001-06056 NOS [Nuclear Oversight] Identified: Several CAP [Corrective Action Program] Evaluations Process in an Untimely Manner; October 25, 2001.

Root Cause Reports (RCRs)

- RCR L1999-4002 Unit 2 Scram Due to Failure of the 2A Turbine-Driven Reactor Feedwater Pump (TDRFP) Hydraulic Control System.
- RCR L1999-4173 Unit 1 Scram Due to Human Performance Errors During TDRFP Servo Preventative Maintenance.
- RCR L1999-5708 Unit 2 Scram Due to Electro-Hydraulic Control System Circuit Card Failure.
- RCR L2000-3414 Unit 2 Scram Due to Foreign Material in the TDRFP Hydraulic Control System.

LIST OF DOCUMENTS REVIEWED

Root Cause Reports (con't)

RCR L2000-6981	Unit 2 Scram Due to Inadequate Preparation Prior to Placement of a TDRFP On-Line Following L2R08.
RCR L2001-0604	Unit 1 Scram Due to Underslung Support Insulator Failure.
RCR L2001-2137	Unit 2 Scram Due to Blown Fuse in the Feedwater System Logic During Maintenance.
RCR L2001-3135	Unit 2 Scram Due to High Main Turbine Vibration During Surveillance Testing.
RCR L2001-5059	Unit 2 Scram Due to Blown Fuse Associated With Electrical Bus 241Y Undervoltage Potential Transformer.
RCR L2001-5124	Unit 2 Scram Due to Heater Drain System Isolation.
RCR L2001-3288	Ten Reactor Scrams Since Restart of Unit 2 From L2R07 Due to a Number of Organizational and Management Issues.

Licensee Event Reports (LERs)

LER 50-373/99-002, Revision 0	Automatic Reactor Scram Due to Failure of Reactor Water Level Control
LER 50-373/99-003, Revision 0	Reactor Scram on Low Reactor Water Level Due to Personnel Error
LER 50-374/99-003, Revision 0	Manual Reactor Scram Due to Electro-Hydraulic Control System Failure
LER 50-374/01-001, Revision 0	Reactor Scram Due to Blown Fuse in Feedwater Control System During Maintenance
LER 50-374/00-003, Revision 0	Scram on Low Reactor Water Level Due to Loss of 2A Turbine-Driven Reactor Feedwater Pump Flow
LER 50-374/00-006, Revision 0	Unit 2 Scram on Turbine Control Valve Closure Due to High Reactor Water Level
LER 50-373/01-001, Revision 0	Reactor Scram Due to Electrical Fault on Transformer Yard 345 kV [Kilovolt] Line "C" Phase Insulator
LER 50-374/01-002, Revision 0	Reactor Scram Due to High Turbine Vibration During Testing

LIST OF DOCUMENTS REVIEWED

LERs (con't)

LER 50-374/01-03, Revision 0	Reactor Scram Due to Undervoltage Protective Circuit Actuation on Division 1 ESF [Engineered Safety Features] Bus 241Y
LER 50-374/01-04, Revision 0	Manual Reactor Scram Due to Heater Drain Isolation

Action Tracking Matrix (ATM) Items

ATM 15789-31	Conduct Gap Analysis on Operator Standards and Fundamentals
ATM 15139-15	Train on Procedure NSP-OP-101-109
ATM 53835-14	Clarify and Reinforce Station Management Expectations
ATM 53835-15	Communicate Risk Management Expectations
ATM 53835-16	Establish Risk Feedback Policy
ATM 53835-18	Perform Effectiveness Review to Monitor Progress and Identify Changes
ATM 53835-19	Perform Effectiveness Review to Monitor Progress and Identify Changes
ATM 53835-22	Document Risk Impact Assessments For Canceled or Deferred Work
ATM 53835-25	Conduct Evaluation of Where First Line Supervisors Spend Time
ATM 53835-26	Clarify Management Expectations For OPEX Review
ATM 53835-27	Improve Operations Department Supervisor Enforcement of Standards
ATM 53835-28	Improve Maintenance Department Supervisor Enforcement of Standard
ATM 53835-29	Improve Engineering Department Supervisor Enforcement of Standards
ATM 53835-30	Perform Training Needs Analysis For Equipment Failure Mode Training
ATM 53835-31	Perform Quarterly OPEX Self-Assessment
ATM 53835-32	Establish Equipment Failure Root Cause Analysis Model
ATM 53835-33	Training Needs Analysis For Risk Assessment
ATM 53835-34	Perform Training Needs Analysis For Risk Assessment - Operations
ATM 53835-35	Perform Training Needs Analysis For Risk Assessment - Maintenance
ATM 53835-36	Perform Training Needs Analysis For Risk Assessment - Engineering
ATM 53835-37	Perform Training Needs Analysis For Risk Assessment - Work Control
ATM 53835-38	Perform Training Needs Analysis For System Training For Planners
ATM 53835-39	Establish Checklists To Review of Root Cause Reports
ATM 53835-40	Perform Effectiveness Review of Corrective Actions
ATM 53835-42	Establish Equipment Root Cause Methodology Requirements

Other

Root Cause Investigation Charter - White Performance Indicator for Unplanned Automatic and Manual Scrams (S.4.1).

Common Cause Analysis Report 53835-12, "Ten Reactor Scrams Since Restart of Unit 2 From L2R07 Due to a Number of Organizational and Management Issues," November 20, 2001.

OP-AA-101-109, Pre-Job and Heightened Level of Awareness Briefings, Revision 0.

LIST OF DOCUMENTS REVIEWED

Other (con't)

Focus Area Self-Assessment - Operating Experience, May 28 through June 29, 2001.

LaSalle County Station Policy Guide 117, "Management Expectations for LaSalle Station Corrective Action Program," Revision 2.

Memorandum from Jim Heishman to Instrument Maintenance Staff/Fix-It-Now Team Staff, "Maintenance Risk Assessments and Lifting Energized Leads," dated April 9, 2001.

Memorandum from David Czufin to Engineering Personnel, "Review and Approval of RCRs [Root Cause Reports] and Equipment Related ACEs [Apparent Cause Evaluations] dated May 15, 2000.

Effectiveness Review 15789, "Effectiveness Review of Unit 1 Automatic Scram Due to Low Level Due to Individual Human Performance and Failed Barriers," dated June 6, 2000.

Effectiveness Review 15139-15, "Effectiveness Review of Automatic Scram of Unit 2 Due to Low Water Level Due to Failure of the 2A Turbine Driven Reactor Feedwater Pump," dated August 17, 2000.

Common Cause Analysis, "Potential Trend Associated With Human Performance Events at LaSalle Generating Station," July 16, 2001.

Annual Effectiveness Review (Self-Assessment) of LaSalle County Station Operating Experience Program; March 24, 2000.
Nuclear Oversight Corrective Action Program and Assessment Report; March 2000.

NRC Inspection Report 50-373/00-12(DRP);50-374/00-12(DRP).

Analysis SA-816, "LaSalle Unit 2 Scram Rate Significance Analysis," Revision 0; December 12, 2001.

General Information Notice 99-104, "OP-AA Procedure Overview With Documentation," August 25, 1999.

General Information Notice 99-081, "OP-AA Procedure Overview For Operations," July 2, 1999.

NRC Inspection Report 50-373/00-19;50-374/00-19.

Work Request 00067378-04, "Turbine Control Valve 3 Actuator/O-Ring/Piston Rods/Seals".