

December 10, 2001

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

SUBJECT: LASALLE COUNTY STATION
NRC INSPECTION REPORT 50-373/01-12(DRP); 50-374/01-12(DRP)

Dear Mr. Kingsley:

On November 17, 2001, the NRC completed an inspection at your LaSalle County Station. The enclosed report presents the results of that inspection. The results of this inspection were discussed on November 20, 2001, with Mr. C. Pardee and other members of your staff.

The inspection was an examination by the resident inspectors of activities conducted under your license as they relate to reactor safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the inspectors identified two "Green" findings and one "No Color" finding that were determined to involve a violation of NRC requirements. However, because of their very low safety significance and because these issues were entered into your corrective action program, the NRC is treating these issues as Non-Cited Violations (NCVs) in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny these Non-Cited Violations, you should provide a response with a basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at LaSalle County Station.

The inspectors also identified one "No Color" finding which did not involve a violation of NRC requirements.

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Sincerely,

Original signed by
Bruce Burgess

Bruce Burgess, Chief
Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 50-373/01-12(DRP);
50-374/01-12(DRP)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-373, 50-374
License Nos: NPF-11, NPF-18

Report Nos: 50-373/01-12(DRP); 50-374/01-12(DRP)

Licensee: Exelon Generation Company

Facility: LaSalle County Station, Units 1 and 2

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

Dates: October 1 through November 17, 2001

Inspectors: E. Duncan, Senior Resident Inspector
G. Wilson, Resident Inspector
R. Langstaff, Reactor Inspector
Hironori Peterson, Senior Operations Engineer (Lead)
Jay Hopkins, Senior Operations Engineer
Philip Young, Operator Licensing Examiner
J. Yesinowski, Illinois Department of Nuclear Safety

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

SUMMARY OF FINDINGS

IR 05000373-01-12(DRP), IR 05000374-01-12(DRP), on 10/01-11/17/2001; Exelon, LaSalle County Station, Units 1 & 2; Identification and Resolution of Problems; Biennial Maintenance Rule; Licensed Operator Requalification Program; Cross-Cutting Issues.

This report covers a 7-week routine resident inspection, a biennial maintenance rule inspection and an operator requalification inspection. The inspections were conducted by the resident inspectors, a regional reactor engineer, and three operator license examiners. Two "Green" findings and one "No Color" finding were identified which were the subject of Non-Cited Violations (NCVs). One "No Color" finding which did not involve a violation of NRC requirements was also identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (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/reading-rm/adams.html>. Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation.

A. Inspector Identified Findings

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

- No Color. Licensee personnel failed to recognize in a timely manner that the moisture carryover fraction used in the computer core heat balance calculation was inaccurate and caused Unit 1 and Unit 2 to be operated at a power level which exceeded the licensed thermal power limit. One Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified.

The issue was of very low safety significance since the actual power level operated at only slightly exceeded the licensed thermal power and was within design analysis limits. (Section 4OA2.1)

- Green. Licensee personnel failed to address an anomaly observed during operation of the 2A Residual Heat Removal (RHR) system in a timely manner. As a result, air trapped in the Unit 2 RHR and Low Pressure Core Spray (LPCS) system piping, which potentially impacted system operability, was not identified in a timely manner. One Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified.

The issue was of very low safety significance since further evaluation determined that there was no adverse impact on the operability of the Unit 2 RHR or LPCS systems. (Section 4OA2.2)

- Green. During actions to address a Unit 2 Division 2 RHR Service Water (RHRSW) system elevated pressure condition, operators performed actions which were not specified in a procedure addressing the specific high pressure condition, rendering the system inoperable for about 6 minutes. One Non-Cited

Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified.

The issue was of very low safety significance since the Unit 2 Division 2 RHRSW system was restored to service within the Technical Specification Allowed Outage Time and the Unit 2 Division 1 RHRSW system was available during the entire time that the Division 2 RHRSW system was inoperable. (Section 4OA4.1)

- No Color. An adverse performance trend in human performance-related errors appears to be developing in several cornerstone elements. The relationship between these errors is that poor human performance during implementation of established procedures or during actions which were not prescribed in an approved procedure directly resulted in a number of plant events. The individual errors each had an adverse impact on safety, increasing the frequency of initiating events, or potentially or actually affecting the reliability, operability, and functionality of a structure, system, or component. This adverse performance trend is considered a substantive cross-cutting issue not captured in individual issues indicating a performance trend. (Section 4OA4.2)

B. Licensee Identified Violations

Violations of very low significance which were identified by the licensee have been reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. These violations are listed in Section 4OA7 of this report.

Report Details

Summary of Plant Status: Both units operated at or near full power for the entire inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors verified that the design features and licensee procedures protecting Unit 1 and Unit 2 systems from the effects of low temperature during the winter season were adequate. In particular, the inspectors focused on the Condensate Storage Tank (CST) heaters, heat tracing, Control Room Ventilation (VC) heating, Lake Screen House (LSH) heating, Emergency Diesel Generator (EDG) room heating, Auxiliary Electric Equipment Room (AEER) Ventilation heating, and Reactor Building Ventilation heating. For these areas, the inspectors reviewed LaSalle Operating Surveillance (LOS) ZZ-A2, "Preparation for Winter/Summer Operation," Revision 22. The inspectors walked down portions of the systems discussed above and verified that the systems had been properly aligned for cold weather operation.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

The inspectors performed a walkdown of accessible portions of the Unit 2 Low Pressure Core Spray (LPCS) system and 2A Residual Heat Removal (RHR) and 2B RHR sub-systems to verify system operability during maintenance activities associated with the 2C RHR sub-system. The inspectors reviewed documentation to determine correct system lineup. These documents included plant procedures, e.g., abnormal and emergency operating procedures, and plant drawings. The inspectors verified critical portions of the redundant or backup system and identified any discrepancies between the existing equipment lineup and the correct lineup.

On October 9, 2001, in response to a potential common mode failure issue identified on EDG 2A, the inspectors observed the start of the Division 0 and 1A EDGs and verified that Technical Specification 3.8.1 requirements were met to demonstrate that the EDGs were operable.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors walked down the following risk significant areas to identify any fire protection degradations:

- Fire Zone 2G1/2G2 Unit 1 - Reactor Building- Elevation 710'
- Fire Zone 3F1/3F2 Unit 2 - Reactor Building- Elevation 740'
- Fire Zone 7C1 Unit 1 High Pressure Core Spray (HPCS) Diesel Fuel Tank Room
- Fire Zone 7C2 Unit 1 Division 2 Diesel Fuel Tank Room
- Fire Zone 7C3 Unit 1 Division 1 Diesel Fuel Tank Room
- Fire Zone 7C4 Unit 1 HPCS Diesel Pump Room

Emphasis was placed on control of transient combustibles and ignition sources; the material condition, operational lineup, and operational effectiveness of the fire protection systems, equipment, and features; and the material condition and operational status of fire barriers used to prevent fire damage or fire propagation.

In particular, the inspectors verified that all observed transient combustibles were being controlled in accordance with the licensee's administrative control procedures. In addition, the inspectors observed the physical condition of fire detection devices, such as overhead sprinklers, and verified that any observed deficiencies did not impact the operational effectiveness of the system. The physical condition of portable fire fighting equipment, such as portable fire extinguishers, was also observed and verified to be located appropriately, and that access to the extinguishers was unobstructed. Fire hoses were verified to be installed at their designated locations and the physical condition of the hoses was verified to be satisfactory and access unobstructed. The physical condition of passive fire protection features such as fire doors, ventilation system fire dampers, fire barriers, fire zone penetration seals, and fire retardant structural steel coatings was inspected and verified to be properly installed and in good physical condition.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

1. Resident Requalification Inspection

a. Inspection Scope

The inspectors observed licensed operator requalification remediation training conducted in accordance with Scenario Examination Scenario Guide (ESG) 29, "Failure of 'D' Fuel Pool Ventilation Radiation Monitor/'A' RR [Reactor Recirculation] FCV [Flow Control Valve] Drifts Closed/'A' RR Pump High Vibration/Feed Flow Instrument Malfunction/Small Reactor Recirculation Line Break in the Drywell with Primary Containment Downcomer Failure and PSP [Pressure Suppression Pressure] Threat."

The inspectors also observed a licensed operator evaluation conducted in accordance with Scenario Examination Guide (SEG) 01C6-03, "Fire in the 1B RHR Pump/Selected RWLC [Reactor Water Level Control] Narrow Range Fails Downscale/Reactor Recirculation Line Break in the Drywell with ADS [Automatic Depressurization System] Actuation."

The inspectors verified that the crew performed activities in accordance with established procedures including: clarity and formality of communication; the ability to take timely action in the safe direction; the prioritizing, interpreting, and verifying of alarms; the correct use and implementation of procedures, including alarm response procedures; timely control board operation and manipulation, including high-risk operator actions; the oversight and direction by the shift manager, including the ability to identify and implement appropriate Technical Specification actions such as reporting and emergency plan actions and notifications; and the group dynamics.

b. Findings

No findings of significance were identified.

.2 Facility Operating History

a. Inspection Scope

The inspectors reviewed the plant's operating history from September 1999 through August 2001, to assess whether the Licensed Operator Requalification Training (LORT) program had addressed operator performance deficiencies noted at the plant.

b. Findings

No findings of significance were identified.

.3 Licensee Requalification Examinations

a. Inspection Scope

The inspectors performed a biennial inspection of the licensee's LORT program. The inspections were conducted in three parts; job performance measures (JPMs) walkthrough test during July 17-20, 2001, dynamic simulator test during August 27-30, 2001, and the written examination during October 11-12, 2001. The inspectors reviewed the licensee's annual requalification operating and written examination material to evaluate general quality, construction, and difficulty level. The operating examination material consisted of dynamic simulator scenarios and JPMs. The biennial written examination material included a total of 35 open reference multiple choice questions. The inspectors reviewed the methodology for developing the examinations, including the LORT program two year sample plan, probabilistic risk assessment insights, previously identified operator performance deficiencies, and plant modifications. The inspectors assessed the level of examination material duplication during the current year annual examination (through two examinations) and with last year's annual examinations. The inspectors also interviewed members of the licensee's management and training staff and discussed various aspects of the examination development.

b. Findings

No findings of significance were identified.

.4 Licensee Administration of Requalification Examinations

a. Inspection Scope

The inspectors observed the administration of the requalification operating test to assess the licensee's effectiveness in conducting the test and to assess the facility evaluators' ability to determine adequate performance using objective, measurable performance standards. The inspectors evaluated the performance of one operating shift crew during three dynamic simulator scenarios and another operating crew on five JPMs in parallel with the facility evaluators. The inspectors observed the training staff personnel administering the operating test, including pre-examination briefings, observations of operator performance, individual and crew evaluations after dynamic scenarios, techniques for JPM cuing, and the final evaluation briefing for licensed operators. The inspectors noted the performance of the simulator to support the examinations. In addition, the inspectors observed the administration of the written examination. The inspectors also reviewed the licensee's overall examination security program.

b. Findings

No findings of significance were identified.

.5 Licensee Training Feedback System

a. Inspection Scope

The inspectors assessed the methods and effectiveness of the licensee's processes for revising and maintaining its LORT program up to date, including the use of feedback from plant events and industry experience information. The inspectors interviewed

licensee personnel (operators, instructors, training management, and operations management) and reviewed the applicable licensee's procedures. In addition, the inspectors reviewed the licensee's self-assessment reports, including the 2001 Licensed Operator Requalification Training Self-Assessment Report, 2001-01 LaSalle Operations Training Programs Assessment Report, and the 2000 Nuclear Oversight Training Program Assessment Report NOA-01-00-PS21.

b. Findings

No findings of significance were identified.

.6 Licensee Remedial Training Program

a. Inspection Scope

The inspectors assessed the adequacy and effectiveness of the remedial training conducted since the previous annual requalification examinations and the training planned for the current examination cycle to ensure that they addressed weaknesses in licensed operator or crew performance identified during training and plant operations. The inspectors reviewed remedial training procedures and individual remedial training plans, and interviewed licensee personnel (operators, instructors, and training management). In addition, the inspectors reviewed the licensee's current examination cycle remediation packages for unsatisfactory operator performance on the written examination and operating test to ensure that remediation and subsequent re-evaluations were completed prior to returning individuals to licensed duties.

b. Findings

No findings of significance were identified.

.7 Conformance with Operator License Conditions

a. Inspection Scope

The inspectors evaluated the facility and individual operator licensees' conformance with the requirements of 10 CFR Part 55. The inspectors reviewed the facility licensee's program for maintaining active operator licenses. The inspectors reviewed the procedural guidance and the process for tracking on-shift hours for licensed operators and which control room positions were granted credit for maintaining active operator licenses. The inspectors also reviewed ten licensed operators' medical records maintained by the facility for ensuring the medical fitness of its licensed operators and to assess compliance with medical standards delineated in ANSI/ANS-3.4 and with 10 CFR 55.21 and 10 CFR 55.25.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

.1 Quarterly Maintenance Rule

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the maintenance rule requirements, including a review of scoping, goal-setting, and performance monitoring, short-term and long-term corrective actions, and current equipment performance status. The systems selected for inspection were all classified as risk significant by the licensee's maintenance rule program. The systems evaluated were:

2. Electro-Hydraulic Control (EHC) System
3. Essential Switchgear Ventilation System (VX)

The EHC and VX systems were selected based upon their maintenance rule (a)(1) classification. The inspectors independently verified the licensee's implementation of maintenance rule requirements for these systems by verifying that these systems were properly scoped within the maintenance rule; that all failed structures, systems, or components (SSCs) were properly categorized and classified as (a)(1); and that the goals and corrective actions to return these systems to an (a)(2) status were appropriate. The inspectors also verified that issues were identified at an appropriate threshold and entered in the corrective action program.

b. Findings

No findings of significance were identified.

.2 Biennial Maintenance Rule

b. Inspection Scope

The objective of the inspection was to:

- Verify that the periodic evaluation was completed within the time restraints defined in 10 CFR 50.65, the maintenance rule (once per refueling cycle, not to exceed two years) verifying that the licensee reviewed its goals, monitoring, preventive maintenance activities, industry operating experience, and made appropriate adjustments as a result of that review;
- Verify that the licensee balanced reliability and unavailability during the previous refueling cycle, including a review of safety significant structures, systems, and components (SSCs);
- Verify that (a)(1) goals were met, corrective actions were appropriate to correct the defective condition, including the use of industry operating experience, and (a)(1) activities and related goals were adjusted as needed; and

- Verify that the licensee established (a)(2) performance criteria, examined any SSCs that failed to meet their performance criteria, or reviewed any SSCs that have suffered repeated maintenance preventable functional failures, including a verification that failed SSCs were considered for (a)(1).

The inspectors examined the periodic evaluation reports completed for the period of June 1998 through October 2001. To evaluate the effectiveness of (a)(1) and (a)(2) activities, the inspectors examined (a)(1) action plans, justifications for returning SSCs from (a)(1) to (a)(2), and a number of CRs (contained in the list of documents at the end of this report). In addition, the CRs were reviewed to verify that the threshold for identification of problems was at an appropriate level and the associated corrective actions were appropriate. The majority of these CRs were related to the following systems:

- Auxiliary Power
- Main Steam

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee's evaluation of plant risk, scheduling, configuration control, and performance of maintenance associated with planned and emergent work activities and verified that scheduled and emergent work activities were adequately managed. In particular, the inspectors reviewed the licensee's program for conducting maintenance risk safety assessments and verified that the licensee's planning, risk management tools, and the assessment and management of online risk were adequate. The inspectors also verified that licensee actions to address increased online risk during these periods, such as establishing compensatory actions, minimizing the duration of the activity, obtaining appropriate management approval, and informing appropriate plant staff, were accomplished when online risk was increased due to maintenance on risk-significant SSCs. The following specific activities were reviewed:

- The maintenance risk assessment for work planned for the week of October 7, 2001.
- The maintenance risk assessment for work planned for the week of October 21, 2001.
- The maintenance risk assessment for work planned for the week of October 28, 2001.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions (71111.14)

- .1 (Closed) Licensee Event Report (LER) 50-374/01-03, Revision 0: Unit 2 Reactor Scram Due to Undervoltage Protective Circuit Actuation on Division 1 Engineered Safety Features (ESF) Bus 241Y.

On September 3, 2001, LaSalle Unit 2 was manually scrammed from 100 percent power due to two blown fuses in the undervoltage protective circuitry associated with ESF Bus 241Y.

The inspectors responded to the reactor scram as documented in NRC Special Inspection Report 50-374/01-17(DRP). The inspectors reviewed the subject LER. No new issues were identified. This LER is closed.

- .2 (Closed) LER 50-374/01-04, Revision 0: Unit 2 Reactor Scram Due to Heater Drain Isolation.

On September 7, 2001, during power ascension activities following a Unit 2 startup, operators placed feedwater heater strings in service in accordance with operating procedures. During additional power ascension activities, operators received a 21A low pressure heater high level alarm and isolated condensate to the 2A feedwater heater string. Shortly afterward, the 21C low pressure feedwater heater high level alarm was also received at which point operators isolated the 2C feedwater heater string and manually scrammed the reactor.

The inspectors responded to the manual reactor scram as documented in NRC Inspection Report 50-373/01-11(DRP); 50-374/01-11(DRP). The inspectors reviewed the subject LER. No new issues were identified. This LER is closed.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed selected Condition Reports (CRs), Engineering Requests (ERs), and Operability Evaluations (OEs) of degraded and non-conforming conditions affecting mitigating systems and barrier integrity to ensure that operability was properly justified and the component or system remained available, such that no unrecognized increase in risk had occurred. The following CRs, ERs, and OEs were reviewed:

- CR L2001-05531 High Energy Line Break (HELB) Issues Affecting Refuel Floor.
- ER9702851 Emergency Core Cooling System (ECCS) Testable Check Valve Position Indication
- OE01-18 Unit 2 RCIC Pump Flow Lower Than Expected

b. Findings

CR L2001-05531 reviewed the impact of high energy line break (HELB) issues affecting the refueling floor. This condition report reviewed the impact of modified refueling floor plugs and closed doors that were previously assumed open in HELB analysis L001384.

The modified refueling floor plugs were significantly lighter than those previously installed and assumed in the licensee's HELB analysis. The modified refueling floor plugs could potentially be dislodged as a result of the differential pressure due to the postulated HELB and could potentially fall through the floor openings. The inspectors conducted plant walkdowns to evaluate potential damage to the spent fuel pool and plant equipment located below the plugs. The inspectors verified that there was reasonable assurance that no safety-related equipment would be adversely impacted and that the spent fuel pool would remain intact. One Non-Cited Violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," was identified by the licensee and is discussed in Section 4OA7 of this report.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The originally installed LaSalle Emergency Diesel Generator (EDG) governors included an automatic reset feature which returned the speed setting of the governor to 900 revolutions per minute (rpm) whenever the engine speed fell below 150 rpm. This feature prevented setting the governor speed to less than 900 rpm prior to starting the engine and required manual operator action to control engine speed during an EDG slow-start surveillance test. This action had resulted in a number of failures to start as a result of either overspeeding or fuel starving the engine.

Design Change Packages (DCPs) were developed to modify the EDG engine control circuitry for the five safety-related EDGs to de-energize the automatic reset circuitry whenever the voltage regulator switch was placed in the "off" position, and install an additional tachometer on the EDG engine control panel to more conveniently monitor engine speed. Since the voltage regulator switch is only placed in "off" after the EDG has been declared inoperable in preparation for a slow-start surveillance test, and is returned to "automatic" in its normal standby configuration, no change in the function or design of the EDG control circuit was identified.

The inspectors verified that the wiring changes prescribed in the EDG control circuit modification package did not impact the design basis; affected operations procedures and training were identified; and that the installation of an additional tachometer had no impact on the seismic qualification of the equipment. The inspectors also verified through a review of post-modification design assumptions and post-modification testing results that the post-modification testing was adequate.

Finally, the inspectors reviewed DCP 9900362, "Defeat 0 EDG Automatic Reset Feature," and LaSalle Special Test (LST) 2001-021, "0 EDG Voltage Regulator Switch Modification Test," and observed post-modification testing activities in the field.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

During post-maintenance testing observations, the inspectors verified that the test was adequate for the scope of the maintenance work which had been performed, and that the testing acceptance criteria was clear and demonstrated operational readiness consistent with the design and licensing basis documents. The inspectors also verified that the impact of the testing had been properly characterized during the pre-job briefing; the test was performed as written and all testing prerequisites were satisfied; and that the test data was complete, appropriately verified, and met the requirements of the testing procedure. Following the completion of the test, the inspectors verified that the test equipment was removed, and that the equipment was returned to a condition in which it could perform its safety function. The inspectors reviewed and observed post-maintenance testing activities involving risk significant equipment as directed by the following work requests (WRs):

- WR 00368830 2A Emergency Diesel Generator (EDG) Voltage Regulator Circuit Troubleshooting
- WR 99281063 Unit 1 High Pressure Core Spray (HPCS) Minimum Flow Bypass Switch Replacement
- WR 99182792 Unit 2 Low Pressure Core Spray (LPCS) Breaker Refurbishment
- WR 00378515 2A Emergency Diesel Generator (EDG) Governor Repair

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed the following surveillance testing on risk-significant equipment and verified that the structures, systems, and components (SSCs) selected were capable of performing their intended safety function and that the surveillance tests satisfied the requirements contained in Technical Specifications, the Updated Final Safety Analysis Report (UFSAR), and licensee procedures. During surveillance testing observations, the inspectors verified that the test was adequate to demonstrate operational readiness consistent with design and licensing basis documents, and that the testing acceptance criteria was clear. The inspectors also verified that the impact of the testing had been properly characterized during the pre-job briefing; the test was performed as written and all testing prerequisites were satisfied; the test data was complete, appropriately verified, and met the requirements of the testing procedure; and that the test equipment range and accuracy was consistent with the application, and the calibration was current. Following the completion of the test, the inspectors verified that the test equipment was removed, and that the equipment was returned to a condition in which it could perform its safety function.

- LaSalle Electrical Surveillance (LES) NB-202B, “Unit 2, Division 2 ADS [Automatic Depressurization System] Timer Calibration and Functional Test”
- LaSalle Instrument Surveillance (LIS) RH-417, “Unit 2 RHR [Residual Heat Removal] Shutdown Cooling Pressure Interface Pressure Alarm Functional Test”

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed Temporary Modification 332711 which replaced the Unit 2 Bus 241Y bus potential transformer fuses and installed a recorder to monitor the voltage and current in the 120 Volts alternating current (Vac) relay circuit in switchgear 241Y auxiliary compartment #11. This temporary modification was installed to monitor abnormalities in the voltage and current on the potential transformer secondary side to address a September 3, 2001 Unit 2 reactor scram, which occurred as a result of failed potential transformer fuses associated with Bus 241Y (NRC Special Inspection Report 50-374/01-17(DRP)). The inspectors reviewed the associated 10 CFR 50.59 safety evaluation against the system design basis documentation, including the UFSAR and Technical Specifications. The inspectors also conducted a walkdown of the temporary modification and compared the installed configuration against the configuration prescribed in design drawings.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems

.1 Untimely Response to Identified Non-Conservative Steam Carryover Fraction

a. Inspection Scope

The inspectors reviewed the corrective actions taken to address a potential non-conservative steam carryover fraction in the computer core heat balance calculation used to calculate Unit 1 and Unit 2 core thermal power.

b. Findings

One “No Color” finding and an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” was identified due to the failure to recognize in a timely manner that the moisture carryover fraction used in the core

thermal power calculation was inaccurate which allowed Unit 1 and Unit 2 to be unknowingly operated at a power level that exceeded the licensed thermal power limit.

Description of Issue

On August 10, 2001, Condition Report (CR) L2001-05007, "OPEX [Operating Experience] Issue - Susquehanna Overpower Issue," was generated to document a non-conservative error identified by the Susquehanna facility associated with the magnitude of the moisture carryover fraction computer constant use in the core thermal power calculation for core power output. The CR documented that the moisture carryover fraction used in the Susquehanna heat balance program was greater than the value of 0.001 recommended by General Electric. In response to this issue, which had been discussed on a Boiling Water Reactor Owners Group (BWROG) Potential Issues Resolution Team (PIRT) telephone call on August 9, 2001, LaSalle personnel determined that the moisture carryover fraction utilized in their heat balance calculations was 0.0034 and was consistent with the value specified in Power Uprate Task Report NEDC-32701P, Revision 2. LaSalle personnel also determined that this value was increased from 0.003 to 0.0034 as part of the power uprate initiative.

On October 3, 2001, following the receipt of General Electric Nuclear Engineering (GENE) document, "Impact of Steam Carryover Fraction on Process Computer Heat Balance Calculations," dated September 2001, CR L2001-05688 was generated which identified that upon further review, the moisture carryover fraction utilized in the LaSalle Unit 1 and Unit 2 computer core heat balance calculation was incorrect and that both units may have been operated at power levels exceeding those specified in the license. As part of their immediate corrective actions, both units were derated 10 megawatts thermal to ensure that even with a moisture carryover fraction of zero, the licensed thermal power limit would not be exceeded. Following additional review, licensee personnel determined that during the transition from General Electric to Siemens fuel in 1998, the moisture carryover fraction utilized in the core heat balance calculation was erroneously revised from 0.001 to 0.003 and that Unit 1 and Unit 2 had been operated at power levels which exceeded the limit specified in the respective operating license for over 3 years by approximately 10 megawatts thermal. As a result, and in accordance with LaSalle County Station Unit 1 and Unit 2 Operating License Condition 2.F, a 24-hour report was made to the NRC Region III Regional Administrator to report a violation of License Condition 2.C.(1), "Maximum Power Level."

The inspectors reviewed the corrective actions aspect of this issue and determined that on at least two occasions, opportunities existed to identify the incorrect moisture carryover fraction. In the first opportunity, which occurred during Unit 1 and Unit 2 power uprate activities, a moisture carryover fraction of 0.0030 was identified in the Updated Final Safety Analysis Report (UFSAR), but was not questioned although the value exceeded the standard value recommended by General Electric. A second opportunity existed following receipt of information from General Electric on August 7, 2001 and discussed on August 9, 2001, which indicated that the value of 0.001 had been recommended in their heat balance calculations. Although this information was available, station personnel made no effort to understand the basis for the deviation between the General Electric recommended value and the LaSalle-specific

value until additional General Electric documentation was received by the station on September 27, 2001.

Significance Evaluation

The inspectors reviewed this issue against the guidance contained in Appendix B, "Thresholds of Documentation," of Inspection Manual Chapter (IMC) 0610*, "Power Reactor Inspection Reports." The inspectors determined that since the actual power level operated at only slightly exceeded the licensed thermal power and was within design analysis limits, that the response to the Group 1 questions in IMC 0610* were all "No". However, in accordance with the Group 3 questions, the inspectors determined that the issue had the potential for impacting the NRC's ability to perform its regulatory function since the issue involved an inadvertent change to a licensed activity. In determining the significance of the violation, and in accordance with NUREG-1600, "General Statement of Policy and Procedure for NRC Enforcement Actions," the inspectors considered the following factors: 1) the significance of the underlying issue, and 2) whether the failure actually impeded or influenced regulatory action and whether the failures invalidated the licensing basis.

The inspectors concluded that since the underlying issue concerned operation of the plant at a power level which exceeded that authorized by the plant license by approximately 10 megawatts thermal, that the condition had existed since February 18, 1998, a period of over 3 years and that the failure invalidated the licensing basis, the issue was more than minor. As a result, in accordance with the guidance related to the Group 3 questions contained in IMC 0610*, the issue was categorized as a "No Color" finding.

Enforcement Actions

10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected. The failure to identify, in a timely manner, that the moisture carryover factor utilized in the core thermal power calculation was incorrect was an example where the requirements of 10 CFR 50, Appendix B, Criterion XVI, were not met and was a violation. However, because of the very low safety significance of the item and because the licensee has included this item in the corrective action program (Condition Report L2001-05688), this corrective action violation is being treated as a Non-Cited Violation (NCV 50-373/01012-01; 50-374/01012-01).

In addition, one Non-Cited Violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," associated with this issue was identified by the licensee and is discussed in Section 4OA7 of this report.

- .2 Untimely Station Response to Anomalous Residual Heat Removal System Indications
 - a. Inspection Scope

The inspectors reviewed the timeliness of corrective actions to address an anomaly observed during operation of the 2A Residual Heat Removal (RHR) system in the suppression pool cooling mode identified in CR L2001-04719.

b. Findings

One “Green” finding and an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” was identified due to the failure to address an anomaly observed during operation of the 2A Residual Heat Removal (RHR) system in a timely manner.

Description of Issue

On August 16, 2001, during the opening of 2E12-F024A, the Unit 2 Division 1 RHR Full Flow Test Valve, to place the 2A RHR sub-system in suppression pool cooling, a momentary system low pressure alarm annunciated concurrent with a sudden decrease in system flow and RHR motor current indication. As part of the corrective actions for this issue, licensee personnel developed a troubleshooting plan to determine the root cause of the abnormal indications. On October 4, 2001, operations personnel vented the suction line associated with the 2A RHR sub-system and as documented in CR L2001-05720, identified air from the vent hose for about 1 minute. On October 7, 2001, as part of the actions to address the extent of condition of the problem on other systems, air was vented from the suction high point vent of the Unit 2 Low Pressure Core Spray (LPCS) system for about 2 minutes as documented in CR L2001-05761.

Inspector Review

The inspectors reviewed the condition reports identified above and questioned the timeliness of the implementation of the licensee’s troubleshooting plan which delayed the identification of the issue from the initial indication of a potential problem on August 16, 2001, until determination of the root cause on October 4, 2001; a period of nearly 7 weeks. As a result, licensee personnel determined that actions to vent the 2A RHR suction high point vent had been scheduled on three previous occasions, but were canceled in favor of other activities. The inspectors also determined that this activity was only planned to be accomplished during routine scheduled Unit 2 Division 1 work and was not viewed as a high priority item.

Significance Evaluation

The inspectors reviewed this issue against the guidance contained in Appendix B, “Thresholds of Documentation,” of Inspection Manual Chapter (IMC) 0610*, “Power Reactor Inspection Reports.” The inspectors determined that with regard to the Group 1 questions in IMC 0610*, the issue had a credible or actual impact on safety since the presence of air in the suction line of the 2A RHR and Unit 2 Low Pressure Core Spray (LPCS) systems had the potential to become entrained in the pump during operation to mitigate a design basis accident and affect system performance. As a result, the inspectors reviewed this issue against the Group 2 questions to determine if the issue impacted one or more cornerstones. The inspectors determined that the “Mitigating

Systems” cornerstone was affected since the 2A RHR and Unit 2 LPCS systems, relied upon to address a design basis event, were impacted. As a result, the inspectors evaluated this issue utilizing the guidance prescribed by IMC 0609, “Significance Determination Process.” During the review, the inspectors determined that since the “Mitigating Systems” cornerstone was affected, that a Phase 2 Significance Determination Process (SDP) evaluation was required. The inspectors conducted this review utilizing “SDP Phase 1 Screening Worksheet For IE [Initiating Events], MS [Mitigating Systems], and BI [Barrier Integrity] Cornerstones.” The inspectors determined that since the operability of the 2A RHR and LPCS systems were not affected, that the finding screened out as Green.

Enforcement Actions

10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected. The failure to identify and vent air entrained in the 2A Residual Heat Removal system and Unit 2 Low Pressure Core Spray system in a timely manner was an example where the requirements of 10 CFR 50, Appendix B, Criterion XVI, were not met and was a violation. However, because of the very low safety significance of the item and because the licensee has included this item in the corrective action program (Condition Report L2001-05949), this corrective action violation is being treated as a Non-Cited Violation (NCV 50-373/01012-02; 50-374/01012-02).

40A4 Cross-Cutting Issues

.1 Human Performance Error In Response to RHR Service Water System High Pressure

a. Inspection Scope

The inspectors reviewed the circumstances surrounding the actions by operators to address a high Unit 2 Division 2 RHR Service Water (RHRSW) system pressure condition identified in CR L2001-05888.

b. Findings

One “Green” finding and an associated violation of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified when it was identified that the licensee had no procedure to address a high pressure condition in Unit 2 Division 2 RHR Service Water (RHRSW) system. Actions taken to address the high pressure condition rendered the system inoperable for about 6 minutes.

Description of Issue

On October 15, 2001, a non-licensed operator identified that the Unit 2 Division 2 RHRSW system pressure was abnormally high, about 98 pounds per square inch gauge (psig). Without procedural guidance, the Unit 2 Supervisor directed a backwash of the Unit 2 Division 2 RHRSW strainer to relieve the elevated pressure. During this

evolution, RHRSW pressure decreased rapidly which rendered the system inoperable and required an entry into Required Action A.1 of Technical Specification 3.7.1, "Residual Heat Removal Service Water (RHRSW) System." Subsequently, operators started the 2A EDG Cooling Water Pump and an RHRSW pump which restored system pressure after about 6 minutes, and exited the Technical Specification Limiting Condition for Operation (LCO).

Inspector Review

The inspectors discussed this event with licensee personnel and reviewed Prompt Investigation Report L2001-05888, "LaSalle Unit 2 Entry Into 7-Day Timeclock Due to Loss of Division 2 Suppression Pool Cooling Mode," dated October 16, 2001. The inspectors determined that the facility had no procedure for addressing a high pressure condition in the RHRSW system when in standby. When operators manually backwashed the strainer, by placing 2HS-E12D300B, the "B" RHR Service Water Strainer Backwash Control Switch, in "Hand", the associated backwash timer locked in which prevented operators from immediately closing the backwash valve upon indications of decreasing system pressure.

Significance Evaluation

The inspectors reviewed this issue against the guidance contained in Appendix B, "Thresholds of Documentation," of Inspection Manual Chapter (IMC) 0610*, "Power Reactor Inspection Reports." In accordance with the Group 1 questions, the inspectors determined that the issue did have a credible impact on safety since this human performance error resulted in rendering the Unit 2 Division 2 RHRSW system inoperable. As a result, the inspectors reviewed this issue against the Group 2 questions and determined that since the Unit 2 Division 2 RHRSW sub-system was relied upon for accident mitigation, that the issue warranted further review in accordance with IMC 0609 "Significance Determination Process" (SDP). The inspectors conducted this review utilizing "SDP Phase 1 Screening Worksheet For IE [Initiating Events], MS [Mitigating Systems], and BI [Barrier Integrity] Cornerstones." The inspectors determined that although the operability of the Unit 2 Division 2 RHRSW system was affected, that since the loss did not exceed the applicable Technical Specification Allowed Outage Time (AOT), that the Unit 2 Division 1 RHRSW system was available, and that no weather-related impact existed, that the finding screened out as Green.

Enforcement Actions

10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires that activities affecting quality shall be prescribed by documented procedures of a type appropriate to the circumstances and shall be accomplished in accordance with those procedures. The failure to perform actions to reduce system pressure through a documented procedure, which rendered the Unit 2 Division 2 RHRSW system inoperable for about 6 minutes, was an example where the requirements of 10 CFR 50, Appendix B, Criterion V, were not met and was a violation. However, because of the very low safety significance of the item and because the licensee has included this item in the corrective action program (Condition Report L2001-05888), this corrective action

violation is being treated as a Non-Cited Violation (NCV 50-373/01012-03; 50-374/01012-03).

.2 Human Performance-Related Error Trend Identification

An adverse performance trend in human performance-related errors appears to be developing in several cornerstone elements. Specifically, (1) as discussed in NRC Inspection Report 50-373/00-19(DRP);50-374/00-19(DRP), a Unit 2 reactor scram occurred due to inadequate preparation and human performance errors while placing a feedwater pump online during power ascension activities, and licensee personnel failed to identify materials in the suppression pool which represented a potential challenge to ECCS suction strainer performance, (2) as discussed in NRC Inspection Report 50-373/01-02(DRP); 50-374/01-02(DRP), chemistry personnel failed to properly adhere to a sampling procedure and isolated the offgas pre-treatment radiation monitor, which rendered the monitor inoperable for about 10 minutes, (3) as discussed in NRC Special Inspection Report 50-374/01-09(DRP), on April 6, 2001, a Unit 2 reactor scram occurred as a result of an improperly performed maintenance activity associated with the feedwater system; (4) as discussed in NRC Inspection Report 50-374/01-17, a number of operator errors occurred following a September 3, 2001, reactor scram which adversely impacted plant stabilization and, in one case, resulted in exceeding vessel heatup limits prescribed by Technical Specifications; (5) as discussed in NRC Inspection Report 50-373/01-11(DRP); 50-374/01-11(DRP), a Unit 2 reactor scram occurred due to human performance errors related to the control of the heater drain system following plant startup from a forced outage; and (6) during this reporting period, on October 15, 2001, during actions to address a high Unit 2 Division 2 RHR Service Water system pressure condition, operators took actions which were not part of a specific procedure to address the condition. The lack of specific guidance resulted in the system being inoperable for about 6 minutes.

The relationship between these errors is that poor human performance during the implementation of licensee procedures or during actions which were not prescribed in an approved procedure directly resulted in the events discussed. These individual findings each have had a direct or indirect adverse impact on safety, increasing the frequency of initiating events, or potentially or actually affecting the reliability, operability, and functionality of a structure, system, or component (SSC). This performance trend is considered a substantive cross-cutting issue not captured in individual issues indicating a performance trend, and is a finding characterized as "No Color."

40A5 Other

Review of Annual World Alliance of Nuclear Operators (WANO) Evaluation Report

The inspectors and the Region III Branch Chief reviewed the Interim WANO Evaluation Report issued on September 26, 2001 for the WANO evaluation conducted from July 23, 2001, through August 3, 2001. The inspectors verified that the results of the WANO evaluation were generally consistent with those identified during NRC inspections. No issues were identified which could substantially affect nuclear safety.

40A6 Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. C. Pardee and other members of licensee management on November 20, 2001. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

Exit Meeting

Senior Official at Exit: C. Pardee, Site Vice President
Date: November 2, 2001
Proprietary: No
Subject: Biennial Maintenance Rule

Exit Meeting

Senior Official at Exit: Chip Pardee, Site Vice President
Dates: July 20; August 30; October 12, 2001
Proprietary: No
Subject: Results of an Inspection of the Licensee's Licensed Operator Requalification Program
Change to Inspection Findings: No

40A7 Licensee Identified Violations

The following findings of very low significance were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as Non-Cited Violations (NCVs).

<u>NCV Tracking Number</u>	<u>Requirement Licensee Failed to Meet</u>
50-373/374/2001012-04	10 CFR 50, Appendix B, Criterion III, requires that the design basis is correctly translated into specifications, drawings, procedures and instructions and that design changes shall be subject to the design control measures commensurate with those applied to the original design. Contrary to the above, on February 2, 1998, licensee personnel inappropriately revised the moisture carryover input into the Unit 1 and Unit 2 reactor power calculation which resulted in the an indicated reactor power level which was slightly lower than actual reactor power. This issue was entered into the licensee's corrective action program as Condition Report (CR) L2001-05688.

- 50-373/374/2001012-05 10 CFR 50, Appendix B, Criterion III, "Design Control," requires that measures shall be established to assure that the design basis is correctly translated into specifications, drawings, procedures, and instructions and that design changes shall be subject to the design control measures commensurate with those applied to the original design. Contrary to the above, floor plugs on the refueling floor were altered and doors assumed open in the event of a High Energy Line Break were closed which was not evaluated as required. This issue was entered into the licensee's corrective action program as Condition Report (CR) L2001-05531.
- 50-373/374/2001012-06 Title 10 CFR 55.25 requires the facility licensee to notify the NRC within 30 days of identifying any licensed operator who develops a permanent physical condition that could potentially affect the ability to perform assigned licensed duties. In mid 1999, the licensee identified four operators who developed permanent changes in their physical conditions. However, the licensee failed to notify the NRC of such changes within 30 days. The licensee did not notify the NRC until an internal audit was performed in September 2000, as described in the licensee corrective action program Reference CR# L2000-05122.

PARTIAL LIST OF PERSONS CONTACTED

Exelon

- D. Bost, Site Engineering Manager
- D. Enright, Operations Manager
- F. Gogliotti, Design Engineering Supervisor
- C. Pardee, Site Vice President
- J. Henry, System Engineering Manager
- G. Kaegi, Training Manager
- D. O'Rourke, Operations Training Manager
- W. Riffer, Regulatory Assurance Manager
- M. Schiavoni, Station Manager
- C. Wilson, Station Security Manager
- G. Graff, Senior Operations Supervisor
- A. Duncan, Regulatory Assurance
- J. Kluch, Training

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-373/2001012-01;50-374/2001012-01	NCV	Untimely Response to Moisture Carryover Fraction Error
50-373/2001012-02;50-374/2001012-02	NCV	Untimely Response to RHR Anomaly
50-373/2001012-03;50-374/2001012-03	NCV	Improper Actions to Address Elevated RHRSW System Pressure Condition
50-373/2001012-04;50-374/2001012-04	NCV	Inappropriate Revision of Moisture Carryover Fraction in Power Calculation
50-373/2001012-05;50-374/2001012-05	NCV	Failure to Revise HELB Analysis
50-373/2001012-06;50-373/2001012-06	NCV	Failure to Notify NRC of Physical Condition Changes

Closed

50-373/2001012-01;50-374/2001012-01	NCV	Untimely Response to Moisture Carryover Fraction Error
50-373/2001012-02;50-374/2001012-02	NCV	Untimely Response to RHR Anomaly
50-373/2001012-03;50-374/2001012-03	NCV	Improper Actions to Address Elevated RHRSW System Pressure Condition
50-373/2001012-04;50-374/2001012-04	NCV	Inappropriate Revision of Moisture Carryover Fraction in Power Calculation
50-373/2001012-05;50-374/2001012-05	NCV	Failure to Revise HELB Analysis
50-373/2001012-06;50-373/2001012-06	NCV	Failure to Notify NRC of Physical Condition Changes
50-374/01-03	LER	Unit 2 Reactor Scram Due to Loss of Bus 241Y Undervoltage Protection
50-374/01-04	LER	Unit 2 Reactor Scram Due to Heater Drain Isolation

Discussed

None.

LIST OF ACRONYMS

AC	Alternating Current
ADS	Automatic Depressurization System
AEER	Auxiliary Electric Equipment Room
ANS	American National Standard
AOT	Allowed Outage Time
BI	Barrier Integrity
BWROG	Boiling Water Reactor Owners Group
CR	Condition Report
CST	Condensate Storage Tank
DCP	Design Change Package
DRP	Division of Reactor Projects
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
EHC	Electro-Hydraulic Control
EMD	Electrical Maintenance Department
ER	Engineering Request
ESF	Engineered Safety Feature
ESG	Examination Scenario Guide
FCV	Flow Control Valve
GENE	General Electric Nuclear Engineering
gpm	gallons per minute
HELB	High Energy Line Break
HPCS	High Pressure Core Spray
IE	Initiating Event
IMC	Inspection Manual Chapter
IMD	Instrument Maintenance Department
JPM	Job Performance Measure
kV	kilovolt
LCO	Limiting Condition for Operation
LER	Licensee Event Report
LES	LaSalle Electrical Surveillance
LIS	LaSalle Instrument Surveillance
LOA	LaSalle Abnormal Operating Procedure
LOP	LaSalle Operating Procedure
LOS	LaSalle Operating Surveillance
LORT	Licensed Operator Requalification Training
LPCS	Low Pressure Core Spray
LSH	Lake Screen House
LST	LaSalle Special Test
MS	Mitigating System
NCV	Non-Cited Violation
OC	Operator Challenge
OPEX	Operating Experience
OWA	Operator Workaround
PARS	Publicly Available Records
PIRT	Potential Issues Resolution Team
PSP	Pressure Suppression Pressure

LIST OF ACRONYMS (continued)

RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
rpm	revolutions per minute
RR	Reactor Recirculation
RWLC	Reactor Water Level Control
SDP	Significance Determination Process
SEG	Scenario Evaluation Guide
SSC	Structure, System, or Component
UFSAR	Updated Final Safety Analysis Report
Vac	Volts Alternating Current
VC	Control Room Ventilation
VX	Essential Switchgear Ventilation
WANO	World Alliance of Nuclear Operators
WR	Work Request

LIST OF DOCUMENTS REVIEWED

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
<u>Assessments</u>		
	Maintenance Rule Periodic Assessment, June 1998 - June 2000	Revision 0
	Maintenance Rule Mid Cycle Review	October 29, 2001
<u>Maintenance Rule (a)(1) Action Plans</u>		
CM-11	Primary Containment 3 Point CAM and 24 Point CAM	Revision 1
EH-02	Provide Control Power and Control Signals to the Turbine Control, Stop and Bypass Valves	Revision 1
FW-03	Asme XI Leak Rate Testing for All Primary Containment Isolation Valves	Revision 1
IN-02	Supply Instrument Quality Compressed Gas for Operation of Pneumatically Controlled or Operated Loads Located in the Drywell	Revision 0
MS-04	Prevents Vessel Over-pressurization	Revision 0
VC-01	Maintain the Control Room Within Design Temperature and Pressure	Revision 0
VE-01	Maintain an Environment Suitable for Personnel Comfort, Health and Safety, and Efficient Functioning of All Equipment	Revision 3
VX-01	Provide Cooling for the Switchgear and Battery Rooms	Revision 0
ZS-10	Fuel Assembly	Revision 0
<u>Evaluations</u>		
	Transformer 1APD5E Failures Due to Incorrect Capacitor Configuration	April 16, 1999
	LaSalle Unit 2 Automatic Reactor Scram and Main Turbine Trip Caused by High Reactor Water Level Due to Human Performance, Design Deficiency and Material Condition	December 20, 2000
	Root Cause Report of LaSalle Unit 1 Scram Response on 1/31/2001	February 15, 2001

	Final Root Cause Report, LaSalle County Station 01 Unit Trip January 31, 2001	February 21, 2001
	Automatic Rps Actuation (SCRAM) Due to Main Turbine Trip on High Vessel Level Because of Blown Fuse in Feedwater System Logic During Maintenance	May 8, 2001
	Unit 2 Automatic Reactor Scram Due to Main Turbine High Vibration During LOS-RP-M5	June 18, 2001
	Bus 241Y Potential Transformer Primary Side Failed Fuses	September 20, 2001
	Manual Scram of LaSalle Unit 2 on September 7	September 13, 2001
SA-809	Maintenance Rule/PSA Linkage Calculation	Revision 0
<u>Procedures</u>		
NES-G-15.03	Maintenance Rule: Performance Criteria Determination Standard	Revision 0
<u>Condition Reports</u>		
L1998-04855	Accumulator Failed Pressure Drop Test	July 2, 1998
L1998-06764	0WS02PB Breaker Would Not Close in Remote Test	October 9, 1998
L1998-07066	REWORK: DG 1A Engine Jacket Water Heater Failed bkr Trip Test	October 28, 1998
L1998-07567	Breaker Tripped After Fuse Installed MCC 136X-2 COMPT. B2	November 23, 1998
L1999-00557	Failed Power Supply for the 1B21-F032A/B	January 31, 1999
L1999-01329	Loss of FW Testable Check Valve Indication	March 15, 1999
L1999-01339	Transformer 1APD5E Burned up Which Is the Power Supply for 1B21-F032A/B	March 15, 1999
L1999-01469	1APD5E Would Not Remain Energized After Replacement	March 20, 1999
L2000-01349	480V Breaker Failure Not Documented in CAPSYS System	May 28, 1999

L2000-02622	Feed Breaker to ESS-134 Found Tripped	May 12, 2000
L2000-05967	Breaker Failed Trip Testing	October 24, 2000

1R11 Licensed Operator Requalification

Year 2001 Annual Written Exam	Week 1; Reactor Operator and Senior Reactor Operator Exams Week 2; Reactor Operator and Senior Reactor Operator Exams
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Licensed Operator Requalification Exam Sample Plan	2000 and 2001 Training Cycles
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Year 2000 Job Performance Measures (JPMs)

P-EP-13	Classify a GSEP Event	Revision 1, May 22, 2000
P-EP-14	Classify a GSEP Event	Revision 1, May 22, 2000
P-EP-09	Classify a GSEP Event	Revision 1, May 22, 2000
P-EP-11	Classify a GSEP Event	Revision 1, May 22, 2000
P-EP-19	Classify HA4 and Complete NARS Form	Revision 2, May 29, 2000
P-NB-04	Perform Alternate Rod Insertion In Accordance with (IAW) LGA-NB-01	Revision 12, May 23, 2000
S-RH-01	Initiate Suppression Pool Cooling IAW LOP-RH-13	Revision 11, May 31, 2000
P-RD-03	Line Up the CRD System Valves for Injection into the RPV IAW the Alternate Vessel Injection Using Both CRD Pumps Procedure, LGA-RD-01	Revision 5, May 25, 2000
S-DG-03	Return Power from the 1A DG to SAT IAW LOP-AP-17	Revision 3, June 6, 2000
S-SC-04	Initiate SBLC IAW LGA-SC-101 with a Failure of the First SBLC Pump to Inject	Revision 6, June 20, 2000
S-RH-02	Place RHR Service Water in Operation IAW LP-RH-05	Revision 10, May 31, 2000

P-FC-02	Respond to a Loss of Normal Level Control on the Fuel Pool	Revision 14, June 23, 2000
P-CY-02	Perform In-Plant Actions to Line Up to U-2B LPCI	Revision 2, June 27, 2000

Year 2001 JPMs

P-NB-05	Perform Alternate Rod Insertion on Unit 2 Using Method 1, Fuse Removal	Revision 5, June 28 2001
P-HP-02	Defeating Unit 2 HPCS High Level Isolation IAW LGA-HP-01	Revision 0, June 26, 2001
P-EP-24	Demonstrate PARS for a General Emergency	Revision 0, July 12, 2001
P-FX-03	De-energizing SRV Control Power IAW LOA-FX-101	Revision 4, July 3, 2001
S-DG-02	O-DG Fast Start Loading	Revision 2, July 12, 2001
S-FW-06	Transfer B Turbine Driven Reactor Feedwater Pump from Manual to 3-Element Control with a Failure of Selected Narrow Range Level Instrument Channel	Revision 2, July 12, 2001

Year 2001 Simulator Scenarios

ESG 28	1A RR FCV Drifts Closed, Loss of RPS A, C APRM Trips when A RPS is Re-energized, Failure of IN059 to Open, 'A' Inboard MSIV Drifts Closed, ATWS with 5 Rods Stuck Full Out, LOCA with Loss of SAT Requiring Low Level ADS	Revision 0, {observed}
ESG 00C5-11	100 Percent Power, Loss of 133, Loss of WR, Broke SDV, Fuel Element Failure, Emergency Depressurization per LGA-02	Revision 1, {observed}
ESG 32,	84 Percent Power, Selected Narrow Range Fails Downscale, Standby Stator Cooling Pump Fails to Auto Start, LOCA Requiring Blowdown on Low Level	Revision 0, {observed}

ESG 27	1N62-F057 Fails Closed, Increase in Main Condenser Backpressure, 15C LP Heater Normal Drain Fails Closed, ES Fails to Isolate, 'U' SRV Sticks Open, Tailpipe Break in the Suppression Chamber, ADS on PSP	Revision 0, {spare, not used}
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Attendance Records for Licensed Operator Requalification Training	2000 and 2001 Training Cycles
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Licensed Operator's Medical Evaluation Records	Various (10 operators)
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Remediation Packages	One Shift Crew Failure on the Dynamic Simulator Test and One Individual Who Failed the 2001 Written Examination
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Procedures

GESP	Generating Stations Emergency Plan	Revision 10
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OP-AA-101-111	Roles and Responsibilities of On-Shift Personnel	Revision 0
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OP-AA-105-101	Administrative Process for NRC License and Medical Requirements	Revision 0
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OP-AA-105-102	NRC Active License Maintenance	Revision 0,
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TQ-AA-106	Licensed Operator Requal Training Program	Revision 0
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TQ-AA-201	Examination Security and Administration	Revision 0
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Condition Reports (Related to Medical Issue)

L2000-05122	September 13, 2000
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Condition Reports (Related to Examination Security Issues)

L2001-00324	January 18, 2001
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L2001-02723	May 4, 2001
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L2001-03617	June 19, 2001
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L2001-03816	June 26, 2001
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L2001-03909	July 2, 2001
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L2001-04176	July 20, 2001
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Self-Assessment Reports

LaSalle Station Assessment Report, Nuclear Oversight Assessment NOA-01-00-PS21, Training Program	July 17, 2000 to September 22, 2000
LaSalle Operations Training Programs Assessment (INPO ACAD 91-015)	January 15, 2001 to January 19, 2001
LaSalle Station 2001 Licensed Operator Requalification Training Self-Assessment Report (71111.11 and TQ-AA-106)	May 21, 2001 to May 22, 2001

Other Documents

NTAFT EVA06	Nuclear Generation Group (NGG) Lecture/Course/Program Evaluation Summary, (for Licensed Operator Requalification Cycle LOR/01, Weeks C3-1 to C3-3)	Revisions 3 and 6
	Various LaSalle Operating Curriculum Review Committee Meeting Minutes,	August 2000 to March 2001