January 24, 2003

Mr. John L. Skolds, President Exelon Nuclear Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 NRC INTEGRATED INSPECTION REPORT 50-373/02-06; 50-374/02-06

Dear Mr. Skolds:

On December 28, 2002, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your LaSalle County Station, Units 1 and 2. The enclosed report documents the inspection findings which were discussed on January 3, 2003, with Mr. G. Barnes and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Since the terrorist attacks on September 11, 2001, the NRC has issued two Orders (dated February 25, 2002, and January 7, 2003) and several threat advisories to licensees of commercial power reactors to strengthen licensee capabilities, improve security force readiness, and enhance access authorization. The NRC also issued Temporary Instruction 2515/148 on August 28, 2002, that provided guidance to inspectors to audit and inspect licensee implementation of the interim compensatory measures (ICMs) required by the February 25th Order. Phase 1 of TI 2515/148 was completed at all commercial nuclear power plants during calendar year (CY) '02, and the remaining inspections are scheduled for completion in CY '03. Additionally, table-top security drills were conducted at several licensees to evaluate the impact of expanded adversary characteristics and the ICMs on licensee protection and mitigative strategies. Information gained and discrepancies identified during the audits and drills were reviewed and dispositioned by the Office of Nuclear Security and Incident Response. For CY '03, the NRC will continue to monitor overall safeguards and security controls, conduct inspections, and resume force-on-force exercises at selected power plants. Should threat conditions change, the NRC may issue additional Orders, advisories, and temporary instructions to ensure adequate safety is being maintained at all commercial power reactors.

Based on the results of this inspection, one self-revealing finding of very low safety significance (Green) was identified which was determined to involve a violation of NRC requirements. However, because of the very low safety significance and because it was entered into your corrective action program, the NRC is treating this finding as a non-cited violation (NCV) J. Skolds

consistent with Section VI.A of the NRC Enforcement Policy. Additionally, one licensee identified violation is listed in Section 4OA7 of this report. If you contest any NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 801 Warrenville Road, Lisle, IL 60532-4351; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at LaSalle County Station.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC website at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

/RA/

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 50-373/02-06; 50-374/02-06

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J. Skolds

cc w/encl: Site Vice President - LaSalle County Station LaSalle County Station Plant Manager Regulatory Assurance Manager - LaSalle Chief Operating Officer Senior Vice President - Nuclear Services Senior Vice President - Mid-West Regional **Operating Group** Vice President - Mid-West Operations Support Vice President - Licensing and Regulatory Affairs Director Licensing - Mid-West Regional Operating Group Manager Licensing - Clinton and LaSalle Senior Counsel, Nuclear, Mid-West Regional Operating Group Document Control Desk - Licensing 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 Nos:	50-373; 50-374
License Nos:	NPF-11; NPF-18
Report No:	50-373/02-06; 50-374/02-06
Licensee:	Exelon Generation Company
Facility:	LaSalle County Station, Units 1 and 2
Location:	2601 N. 21st Road Marseilles, IL 61341
Dates:	October 1 through December 28, 2002
Inspectors:	 E. Duncan, Senior Resident Inspector D. Eskins, Resident Inspector D. Jones, Reactor Engineer M. Mitchell, Radiation Specialist W. Slawinski, Senior Radiation Specialist D. Wrona, Reactor Engineer J. Yesinowski, Illinois Department of Nuclear Safety
Approved by:	Bruce L. Burgess, Chief Branch 2 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000373-02-06, IR 05000374-02-06; Exelon; on 10/01-12/28/02; LaSalle County Station; Units 1 & 2. Event Followup.

This report covers a 3-month period of baseline resident inspection and announced baseline inspections on access control, radioactive material processing and shipping, and inservice inspection. The inspection was conducted by the LaSalle resident inspectors and Division of Reactor Safety (DRS) specialist inspectors. One Green finding was identified which was the subject of a Non-Cited Violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector-Identified and Self-Revealing Findings

Cornerstone: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

Green. Licensee personnel inadvertently placed Unit 2 in a prohibited region of the power-to-flow map during a control rod maneuver on November 10, 2002. Entry into this region increased the likelihood of power oscillations.

The issue was of very low safety significance since no actual power oscillations occurred and the region was exited promptly after the condition was identified. A violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified since this condition had occurred previously, but had not been identified. (Section 40A3)

B. <u>Licensee-Identified Violation</u>

One violation of very low safety significance which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and corrective action tracking number is listed in Section 40A7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near full power until November 4, when power was reduced to about 77 percent to repair an electro-hydraulic control (EHC) leak on the #1 turbine stop valve emergency trip system oil line. Repairs were completed and Unit 1 was returned to full power on November 5, 2002. Unit 1 operated at full power until November 18 when power was reduced to about 77 percent in response to a feedwater heater transient and then reduced to about 70 percent the next day in response to a second transient. Repairs were completed and Unit 1 was returned to full power on November 21, 2002. Unit 1 operated at or near full power for the remainder of the inspection period, except for power reductions to perform pre-planned maintenance and surveillance testing activities, and rod pattern adjustments.

Unit 2 operated at or near full power until October 25, 2002 when the unit was shut down to accomplish LaSalle Maintenance Outage L2P02. All scheduled work was completed and Unit 2 was restarted on November 2, 2002. The unit was shut down shortly after going critical due to problems encountered while placing the turning gear on the main turbine. The turning gear problem was repaired, Unit 2 was restarted and synchronized to the grid on November 5, and returned to full power on November 11. Unit 2 operated at or near full power for the remainder of the inspection period, except for power reductions to perform pre-planned maintenance and surveillance testing activities, and rod pattern adjustments.

1. **REACTOR SAFETY**

Cornerstone: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors reviewed the following systems to verify 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. The inspectors focused on the following:

Condensate Storage Tank (CST) heaters and heat tracing; Control Room Ventilation (VC) heating; Lake Screen House (LSH) heating; Emergency Diesel Generator (EDG) room heating; Auxiliary Electric Equipment Room (AEER) Ventilation (VE) heating; and Essential Switchgear Room (VX) heating.

For these areas, the inspectors reviewed LaSalle Operating Surveillance (LOS) ZZ-A2, "Preparation for Winter/Summer Operation," Revision 24. The inspectors walked down portions of the systems listed above to verify that the systems had been properly aligned for cold weather operation.

b. <u>Findings</u>

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

The inspectors performed partial walkdowns of accessible portions of trains of risk-significant mitigating systems during times when the trains were of increased importance due to the redundant trains or other related equipment being unavailable. The inspectors utilized the valve and electric breaker checklists listed at the end of this report to verify that the components were properly positioned and that support systems were lined up as needed. The inspectors also examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors reviewed outstanding work orders and condition reports (CRs) associated with the trains to verify that those documents did not reveal issues that could affect train function. The inspectors used the information in the appropriate sections of the Updated Final Safety Analysis Report (UFSAR) to determine the functional requirements of the systems.

The inspectors verified the alignment of the following trains with the Unit 2 "A" RHR sub-system unavailable due to planned maintenance:

Unit 2 "B" and "C" Residual Heat Removal (RHR) sub-systems; Unit 2 "B" Residual Heat Removal Service Water (RHRSW) sub-system; and Unit 2 High Pressure Core Spray (HPCS) system on December 2, 2002.

b. Findings

No findings of significance were identified.

- 1R08 Inservice Inspection (ISI) Activities (71111.08)
- a. Inspection Scope

The inspectors conducted a review of the licensee's inservice inspection program for monitoring degradation of the reactor coolant system boundary and the risk significant piping system boundaries. Specifically, the inspectors conducted a record review of the following examinations performed during the Unit 1 Refueling Outage during January 10 through February 4, 2002 (L1R09):

Weld Number	<u>System</u>	Nondestructive Testing Type
1-NIR-2B	Reactor Pressure Vessel (RPV)	Ultrasonic
1-NIR-2D	Reactor Pressure Vessel (RPV)	Ultrasonic
1FW-1001-71A	Feedwater (FW)	Ultrasonic/Magnetic Particle
IRI-1001-05	Reactor Core Isolation Cooling	Ultrasonic
IRR-1055-13	Reactor Recirculation (RR)	Ultrasonic/Liquid Penetrant

These examinations were evaluated for compliance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code requirements. The inspectors also reviewed inservice inspection procedures, personnel certifications, and NIS-2 forms for Code repairs performed during the Unit 1 outage to confirm that ASME Code requirements were met.

The inspectors also reviewed a sample of inservice inspection related problems documented in the licensee's corrective action program, to assess conformance with 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements. In addition, the inspectors verified that operating experience was correctly assessed for applicability by the ISI group.

b. Findings

No findings of significance were identified.

- 1R11 Licensed Operator Requalification (71111.11)
- a. Inspection Scope

On October 10, 2002, the inspectors observed two licensed operator re-qualification training scenario:

ESG50, "CRD [Control Rod Drive] FCV [Flow Control Valve] Setpoint Failure/TDRFP [Turbine-Driven Reactor Feedwater Pump] Turbine Lube Oil Leak/Heater String Isolation/Loss of Stator Cooling/5-Rod ATWS [Anticipated Transient Without Scram]"; and

ESG47, "RWLCS [Reactor Water Level Control System] Trouble/Loss of RPS [Reactor Protection System] "A"/APRM [Average Power Range Monitor] "C" Failure/Loss of Both RR [Reactor Recirculation] Pumps/Failure to Automatic Scram/"K" SRV [Safety Relief Valve] Leakage/RHR [Residual Heat Removal] Heat Exchanger Tube Rupture."

The inspectors observed operator actions to assess crew performance in terms of 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. <u>Findings</u>

No findings of significance were identified.

1R13 <u>Maintenance Risk Assessment and Emergent Work Evaluation</u> (71111.13)

a. <u>Inspection Scope</u>

The inspectors reviewed the licensee's evaluation of plant risk, scheduling, configuration control, and performance of maintenance associated with planned and emergent work activities to verify 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 was adequate. The inspectors also assessed the 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 structures, systems and components (SSCs). The following specific activities were reviewed:

- Maintenance risk assessment for work planned during the week of September 29, 2002.
- Maintenance risk assessment for work planned during the week of October 6, 2002.
- Maintenance risk assessment for work planned during the week of October 13, 2002.
- Maintenance risk assessment for work planned during the week of November 3, 2002.
- Maintenance risk assessment for work planned during the week of December 8, 2002.

b. Findings

1R14 <u>Non-Routine Evolutions</u> (71111.14)

.1 Unexpected Loss of Voltage Regulating Transformer 2APD7E

a. Inspection Scope

The inspectors reviewed the station's response to an unexpected loss of voltage regulating transformer 2APD7E on October 8, 2002, which rendered the "B" main control room and auxiliary electrical equipment room ventilation (VC/VE) systems inoperable. This transformer failure was identified by a non-licensed operator on routine rounds who noted a strong acrid odor in the vicinity of the transformer panel. In particular, the inspectors verified that operation's response was appropriate for the event and in accordance with plant procedures. The inspectors reviewed the licensee's plans, procedures, briefings, and contingency plans associated with the restoration of the transformer. Relevant schematics were also reviewed to verify that all equipment impacted by the loss of the transformer had been properly identified.

b. Findings

No findings of significance were identified.

- .2 Unit 2B Emergency Diesel Generator (EDG) Voltage Regulator Replacement
- a. Inspection Scope

The inspectors reviewed the station's response to an unexpected failure of the 2B EDG voltage regulator identified during High Pressure Core Spray (HPCS) system post-maintenance testing. The inspectors reviewed the activities associated with the voltage regulator replacement, establishing initial regulator settings, the Infrequently Performed Activity (IPA) briefing, and post-maintenance testing conducted in accordance with LaSalle Special Test (LST) 2002-034, "2B Diesel Generator Voltage Regulator PMT [Post-Maintenance Test]," Revision 0.

b. Findings

No findings of significance were identified.

.3 Unit 2 Fuel Sipping

The inspectors observed Unit 2 fuel sipping operations conducted to identify leaking fuel on Unit 2. In particular, the inspectors verified that the sipping equipment was installed and operated in accordance with LaSalle Fuel Procedure (LFP) 400-6, "Installation and Operation of Sipping Equipment."

b. <u>Findings</u>

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed selected Operability Evaluations (OEs) and Engineering Changes (ECs) 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 evaluations were reviewed:

- OE02-12 Unit 1 Turbine Control Valve (TCV) #1 Foreign Material
- EC339629 Unit 2 Safety Relief Valve (SRV) Piping Supports Pinned
- OE02-04 Revision 1: Unit 1 Main Steam Isolation Valve Limit Switch Temperatures

b. <u>Findings</u>

No findings of significance were identified.

1R16 Operator Workarounds (OWAs) (71111.16)

- .1 Routine Operator Workaround Review
- a. Inspection Scope

The inspectors reviewed Operator Challenges (OCs) to identify any potentially adverse impact on the function of mitigating systems or the ability to implement an abnormal or emergency operating procedure. The following item was reviewed:

- OC 238: Emergency Diesel Generator Relief Valve Sticking
- b. Findings

No findings of significance were identified.

- .2 Operator Workaround Cumulative Effects Assessment
- a. Inspection Scope

The inspectors reviewed the cumulative effects of all documented OWAs and OCs on reliability, availability, and potential for mis-operation of a system; the cumulative effects of operator workarounds that could affect multiple mitigating systems; and the ability of operators to respond in a correct and timely manner to plant transients and accidents.

b. <u>Findings</u>

1R19 <u>Post-Maintenance Testing</u> (71111.19)

a. Inspection Scope

The inspectors reviewed and observed the following post-maintenance testing activities involving risk significant equipment associated with the following work orders (WOs):

WO 00468913 Replace Unit 2 Division 2 125 Volt Direct Current (VDC)
 Battery Cell 9 and Battery Cell 23

The inspectors observed post-maintenance testing and reviewed the test procedure to verify 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 observations and reviews were also conducted to verify 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. The inspectors also observed or reviewed post testing conditions to verify that the test equipment was removed, and that the equipment was returned to a condition in which it could perform its safety function.

b. Findings

No findings of significance were identified.

- 1R20 Refueling and Outage Activities
- a. Inspection Scope

The inspectors observed the performance of LaSalle Unit 2 Maintenance Outage L2P02 and evaluated licensee outage activities to ensure that the licensee considered risk in developing the outage schedule; adhered to administrative risk reduction methodologies developed to control plant configuration; developed mitigation strategies for losses of key safety functions; and adhered to the operating license and Technical Specification requirements that ensured defense-in-depth. The following specific outage-related activities were accomplished:

• Outage Plan Review

The inspectors reviewed the licensee's outage control plan to verify that the licensee had appropriately considered risk, industry experience, and previous site-specific problems. The inspectors also confirmed that contingency plans for losses of key safety functions had been established.

Monitoring of Shutdown Activities

The inspectors observed the Unit 2 shutdown to Maintenance Outage L2P02 to verify that the plant was operated in accordance with regulatory requirements and plant procedures, in particular, that cool-down restrictions were followed.

Licensee Control of Outage Activities

The inspectors reviewed the licensee's management of equipment during the outage to ensure that a defense-in-depth commensurate with the outage risk plan for key safety functions and applicable Technical Specifications was maintained. The reviews also served to verified that outage activities were appropriately managed. In particular, out-of-service activities were reviewed to ensure that tags were properly hung to support the out-of-service. Reactor coolant system instrumentation was verified to be configured to provide adequate indication of reactor vessel pressure, temperature, and level. In addition, the inspectors routinely observed decay heat removal system parameters to verify that decay heat removal systems were functioning properly. The inspectors monitored flow paths, configurations, and alternative means for inventory addition and decay heat removal to ensure they were consistent with the outage risk plan. The inspectors reviewed the licensee's control of reactivity and secondary containment to ensure they were in accordance with Technical Specifications.

Refueling Activities

The inspectors observed fuel handling operations to verify they were conducted in accordance with Technical Specifications and approved procedures, and that the location of fuel assemblies was tracked from core offload through core reload.

Monitoring of Heatup and Startup Activities

The inspectors reviewed Technical Specifications, license conditions, and other prerequisites, commitments, and administrative procedure prerequisites for mode changes to ensure they were met prior to changing modes or plant configurations. The inspectors conducted a walkdown of containment prior to restart to verify that debris had not been left which could adversely impact the Emergency Core Cooling System (ECCS) suction strainers.

Identification and Resolution of Problems

The inspectors reviewed the licensee's identification of problems related to refueling outage activities to ensure they were identified at an appropriate threshold and that they were entered into the corrective action program.

b. Findings

1R22 <u>Surveillance Testing</u> (71111.22)

a. Inspection Scope

The inspectors observed surveillance testing on risk-significant equipment to verify that the 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. The surveillance testing observations were also conducted to verify 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 reviews and observations also served to verify 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. Observations following the completion of the test were used to verify that the test equipment was removed, and that the equipment was returned to a condition in which it could perform its safety function.

The following surveillance testing activities were observed:

- LOS-DG-M2, Attachment 2A, "2A Diesel Generator Operability Test Idle Start"
- LaSalle Technical Surveillance (LTS) 200-19, Attachment B, "ECCS [Emergency Core Cooling System] Cubicle Area Cooler Flowrate Test - HPCS [High Pressure Core Spray] Pump Room Area Cooler Fan 2VY02C"

b. Findings

Introduction

One Unresolved Item (URI) was identified associated with the identification of screws missing from the Unit 2 Division 3 High Pressure Core Spray (HPCS) system area cooler, the Unit 2 Division 2 B/C Residual Heat Removal (RHR) system area cooler, and the Unit 1 Division 2 B/C RHR system area cooler, which potentially impacted the ability of these systems to perform their safety function.

Description

On November 21, 2002, the inspectors observed LTS 200-19, "ECCS [Emergency Core Cooling System] Cubicle Area Cooler Flowrate Test," Attachment B, "Test HPCS [High Pressure Core Spray] Pump Room Area Cooler Fan 2VY02C." This surveillance consisted of a visual inspection of the Unit 2 HPCS area cooler with the system shut down followed by a flow rate test with the system running.

Following the completion of the visual inspection portion of the surveillance by engineering personnel, the inspectors independently reviewed the material condition of the area cooler. During that review, the inspectors identified numerous fasteners (screws) missing from the cooler internal framework. On November 22, engineering

personnel determined that the function of these fasteners was to attach the cooler tubesheet to the cooler frame to prevent damage to the cooler during a seismic event. Due to the large number of missing fasteners (33 of 48), the Unit 2 HPCS system was declared inoperable and an Emergency Notification System (ENS) notification was made in accordance with 10 CFR 50.72 for a loss of an accident mitigation function. The fasteners were installed, followed by an extent of condition review on November 23. That review identified similar issues with the Unit 2 Division 2 area cooler (no screws installed) and the Unit 1 Division 2 area cooler (15 of 48 screws missing). These coolers were promptly repaired and a supplement to the original ENS notification was made.

To determine whether the affected area coolers would have been actually impacted in the event of a design basis earthquake, the licensee performed a more in-depth engineering analysis than that which was accomplished as part of their prompt operability review. At the end of the inspection period, the results of this analysis were still pending. As a result, this issue is considered an Unresolved Item (50-373/0206-01(DRP); 50-374/0206-01(DRP)) pending a review of these engineering analysis results.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspector reviewed Revisions 11, 12, and 13 of the LaSalle Station Annex to Exelon's Standardized Emergency Plan to determine whether changes identified reduced the effectiveness of the licensee's emergency planning, pending onsite inspection of the implementation of these changes.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

- 2OS1 Access Control to Radiologically Significant Areas (71121.01)
- .1 Plant Walkdowns
- a. Inspection Scope

The inspectors reviewed the radiological conditions of work areas within radiation areas and high radiation areas in the Auxiliary and Radwaste Buildings. The inspectors performed walkdowns and reviewed licensee controls to determine if the controls (i.e., surveys, postings, and barricades) were adequate to meet the requirements of 10 CFR Part 20 and the licensee's Technical Specifications. Additionally, the inspectors reviewed the licensee's practices during the last refueling outage for controlling access

to contaminated areas and for declaring airborne contamination areas to determine if controls were acceptable.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS2 Radioactive Material Processing and Transportation (71122.02)

.1 Walkdown of Radioactive Waste Systems

a. Inspection Scope

The inspectors reviewed the liquid and solid radioactive waste system description in the UFSAR and the most recent information regarding the types and amounts of radioactive waste generated and disposed. The inspectors performed walkdowns of the liquid and solid radwaste processing systems to verify that the systems agreed with the descriptions in the UFSAR and the Process Control Program, and to assess the material condition and operability of the systems. The inspectors reviewed the current processes for transferring waste resins into transportation containers to determine if appropriate waste stream mixing and sampling procedures were utilized. The inspectors also reviewed the methodologies for waste concentration averaging to determine if representative samples of the waste product were provided for the purposes of waste classification in accordance with 10 CFR 61.55. During this inspection, the licensee was not conducting waste processing.

b. Findings

No findings of significance were identified.

.2 Waste Characterization and Classification

a. <u>Inspection Scope</u>

The inspectors reviewed the licensee's radiochemical sample analysis results for each of the licensee's waste streams, including dry active waste, resins, and filters. The inspectors also reviewed the licensee's use of scaling factors to quantify difficult-to-measure radionuclides (e.g., pure alpha or beta emitting radionuclides). The reviews were conducted to verify that the licensee's program assured compliance with 10 CFR 61.55 and 10 CFR 61.56, as required by Appendix G of 10 CFR Part 20. The inspectors also reviewed the licensee's waste characterization and classification program to ensure that the waste stream composition data accounted for changing operational parameters and thus remained valid between the annual sample analysis updates.

b. <u>Findings</u>

No findings of significance were identified.

.3 Transportation Records

a. Inspection Scope

The inspectors reviewed six non-exempted package shipment manifests completed in years 2001 and 2002 to verify compliance with NRC and Department of Transportation requirements (i.e., 10 CFR Parts 20 and 71 and 49 CFR Parts 172 and 173). The licensee did not have any non-exempt package preparation or shipping underway during the inspection.

b. Findings

No findings of significance were identified.

- .4 Identification and Resolution of Problems
- a. Inspection Scope

The inspectors reviewed the most recent Nuclear Oversight Quality Assurance audit of the Radioactive Waste and Transportation Programs, along with departmental Focused Area Self-Assessments of the Radioactive Waste and Transportation Programs to evaluate the effectiveness of the self-assessment process to identify, characterize, and prioritize problems. The inspectors also reviewed corrective action documentation to verify that previous radioactive waste and radioactive materials transportation related issues were adequately addressed. The inspectors also selectively reviewed year 2001 and 2002 Condition Reports (CRs) that addressed radioactive waste and radioactive materials transportation program deficiencies, to verify that the licensee had effectively implemented the corrective action program.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems (71152)

a. Inspection Scope

During this inspection, the inspectors reviewed corrective actions associated with the following issue to verify the effectiveness of the licensee's corrective actions:

Adverse Trend in Human Performance Errors

Attributes considered during the review included the following:

- Complete and accurate identification of the problem in a timely manner commensurate with its significance and ease of discovery.
- Evaluations and disposition of performance issues associated with maintenance effectiveness.
- Consideration of extent of condition, generic implications, common cause, and previous occurrences.
- Classification and prioritization of the resolution of the problem commensurate with its safety significance.
- Identification of root cause and contributing causes of the problem.
- Identification of corrective actions which are appropriately focused to correct the problem.
- Completion of corrective actions in a timely manner commensurate with the safety significance of the issue.
- b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

a. Inspection Scope

The inspector reviewed the circumstances surrounding an inadvertent entry into Region B of the power-to-flow map which occurred during a Unit 2 rod pattern adjustment on November 10, 2002.

b. Findings

Introduction

One "Green" finding and an associated violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified following an inadvertent entry into Region B of the Unit 2 power-to-flow map during a control rod maneuver on November 10, 2002.

Description

On November 10, 2002, during power ascension from LaSalle Maintenance Outage L2P02, a control rod maneuver was performed as part of the process to achieve the final target control rod pattern. Unit 2 was reduced in power to about 700 Megawatts Electric (MWe) to perform the required control rod maneuvers. Control rods associated

with three arrays were sequentially withdrawn. Before withdrawing each array, the powerplex predictor was used to predict the conditions that would result from withdrawing the array. Powerplex predicted that following the withdrawal of the fourth and final array, that approximately a 2 percent margin would exist between actual core conditions and the power-to-flow map Region B limit of 109 percent flow control line. Following withdrawal of the final array, a nuclear engineer submitted a powerplex case to confirm that the core response was within the preconditioning limits. Following a review of those results, the operating crew determined that Unit 2 had entered Region B of the power-to-flow map; a restricted region requiring an immediate exit due to power stability concerns. The last array withdrawn was re-inserted to its previous position and Region B of the power-to-flow map was confirmed to have been exited.

The licensee conducted a root cause evaluation which identified a number of programmatic and human performance deficiencies. These deficiencies included the following:

- Inadequate communication and implementation of changes in operational strategies as a result of changes in the fuel pre-conditioning rules which resulted in weak worker knowledge for monitoring near Region B of the power-to-flow map.
- Insufficient guidance for predicting core response to reactivity changes.
- Weaknesses in operator knowledge regarding the impact and monitoring of core parameters following rod maneuvers below Region B of the power-to-flow map.
- Use of inadequate indications for monitoring reactor power and flow during operation near Region B of the power-to-flow map.
- Failure to use all available tools, such as OD3 (heat balance) results and the electronic power-to-flow map on the computer, as rods were withdrawn.
- Inadequate pre-job briefing prior to the reactivity changes which failed to discuss the use of the power-to-flow map, proper communication between the Qualified Nuclear Engineer (QNE) and Operations, and roles and responsibilities.

The root cause investigation also determined that a previously unidentified entry into Region B occurred during a planned power maneuver. A review of the powerplex data during power maneuvers for both units, following implementation of the revised pre-conditioning limits, indicated Region B had been entered on Unit 2 on September 1, 2002. The September 1 entry was determined to be due to the same causes as the November 10, 2002 entry.

<u>Analysis</u>

The inspectors determined that the issue described above constituted a finding as defined by the Reactor Oversight Process (ROP) since the issue was related to a licensee performance deficiency. In this case, the issue resulted in not meeting the

licensee requirement to operate outside Region B of the power-to-flow map which was within the licensee's ability to foresee, and which should have been prevented.

The inspectors reviewed this issue against the guidance contained in Appendix B, "Issue Dispositioning Screening," of Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports." The inspectors compared this finding to the findings identified in Appendix E, "Examples of Minor Issues," of IMC 0612 to determine whether the finding was minor. Following that review, the inspectors determined that the examples provided in Appendix E did not fit the specific situation being reviewed. As a result, the finding was reviewed against the questions in Section C, "Minor Questions," of Appendix B to IMC 0612. During the review of this finding against Question 4. "Is the finding associated with one of the below cornerstone attributes and does the finding affect the associated cornerstone objective?", the inspectors determined that the finding was associated with the configuration control, procedure quality, and human performance attributes of the barrier integrity cornerstone. The inspectors also determined that the finding affected the cornerstone objective of providing reasonable assurance that physical design barriers (e.g. fuel cladding) protect the public from radionuclide releases caused by accidents or events since operation outside established operational limits, such as the power-to-flow map, can lead to a violation of thermal limits and fuel cladding damage. As a result, the inspectors concluded that the finding was more than minor.

As a result, the inspectors reviewed this finding against the questions continued in Section C, "SDP Questions," to Appendix B, "Issue Dispositioning Screening," of IMC 0612. The inspectors determined that since the finding was associated with the Barrier Integrity cornerstone and the finding was associated with the integrity of fuel cladding, that the finding could be evaluated using the SDP. Utilizing the "SDP Phase 1 Screening Worksheet for IE [Initiating Events], MS [Mitigating Systems], and B [Barrier Integrity] Cornerstones," the inspectors determined that since the issue involved the fuel barrier of the Reactor Coolant System, that in accordance with the screening worksheet the issue screened out as Green.

Enforcement

10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires that conditions adverse to quality, such as deficiencies and deviations, be promptly identified and corrected. The failure to identify a September 1, 2002, Unit 2 entry into Region B of the power-to-flow map until November 2002 was an example where the requirements of 10 CFR 50, Appendix B, Criterion XVI, were not met and was a violation. However, because of its low safety significance and because it was entered into the corrective action program, the NRC is treating this issue as a Non-Cited Violation (NCV 50-373/0206-02(DRP); 50-374/0206-02(DRP)), in accordance with Section VI.A.1 of the NRC's Enforcement Policy. The issue was entered into the licensee's corrective action program as Condition Report (CR) 130964.

40A6 Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. G. Barnes and other members of licensee management at the conclusion of the inspection on January 3, 2003. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

.2 Interim Exit Meetings

Interim exits were conducted for:

- Access Control, Radiation Material Processing and Transportation inspection with Mr. G. Barnes on November 8, 2002.
- Radioactive Material Processing and Shipping inspection with Mr. G. Barnes on November 15, 2002.
- Inservice Inspection with Mr. G. Barnes on December 18, 2002.

40A7 Licensee Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Manual, NUREG-1600, for being dispositioned as an NCV.

Cornerstone: Occupational Radiation Exposure

Technical Specification 5.4.1 requires, in part, that the licensee establish and implement procedures covering activities recommended in Regulatory Guide 1.33 (Revision 2), Appendix A, February 1978. The Regulatory Guide recommended procedures included radiation protection procedures for access control. Radiation protection procedures require that an area with radiation levels of 1000 mrem/hour or greater be locked and posted as a locked high radiation area, which did not occur for several hours in the Unit 1 Cooler/Condenser Room of the Off Gas Building on February 11-12, 2002. The problem is described in CR 00094760 and its associated apparent cause evaluation report. There were no unauthorized entries into the Cooler/Condenser Room while it was not properly controlled or posted and since area radiation levels coupled with the duration of the problem precluded a substantial potential for an overexposure, the issue was determined to be of very low safety significance. Consequently, it is being treated as an NCV (50-373/0206-03(DRP)).

KEY POINTS OF CONTACT

Licensee Personnel

- G. Barnes, Site Vice President
- S. Landahl, Station Manager
- T. Connor, Design Engineering Supervisor
- D. Czufin, Site Engineering Manager
- D. Enright, Operations Manager
- F. Gogliotti, System Engineering Manager
- K. Hobbs, Radiation Protection Manager
- G. Kaegi, Regulatory Assurance Manager
- A. Kochis, ISI Coordinator
- C. Wilson, Station Security Manager

NRC Personnel

- E. Duncan, Senior Resident Inspector
- D. Eskins, Resident Inspector
- D. Jones, Reactor Engineer
- M. Mitchell, Radiation Specialist
- W. Slawinski, Senior Radiation Specialist
- D. Wrona, Reactor Engineer
- J. Yesinowski, Illinois Department of Nuclear Safety

ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>

50-373/374/0206-01	URI	Missing ECCS Area Cooler Screws
50-373/374/0206-02	NCV	Entry Into Region B of the Power-To-Flow Map
50-373/0206-03	NCV	Uncontrolled High Radiation Area

<u>Closed</u>

50-373/374/0206-02	NCV	Entry Into Region B of the Power-To-Flow Map
50-373/0206-03	NCV	Uncontrolled High Radiation Area

Discussed

None

LIST OF ACRONYMS

AEER ALARA APRM ASME ATWS CR CRD CST DRP DRS EC ECCS EDG EHC ENS FCV FW HPCS IMC IPA ISI LFP LOS LSH LST LTS MT MWe NCV OC OE OWA PMT PT QNE RCIC RCS RHR SW ROP RDS COE SC SC SC SC SC SC SC SC SC SC SC SC SC	Auxiliary Electric Equipment Room As-Low-As-Reasonably Achievable Average Power Range Monitor American Society of Mechanical Engineers Anticipated Transient Without Scram Condition Report Control Rod Drive Condensate Storage Tank Division of Reactor Projects Division of Reactor Safety Engineering Change Emergency Core Cooling System Emergency Diesel Generator Electro-Hydraulic Control Emergency Notification System Flow Control Valve Feedwater High Pressure Core Spray Inspection Manual Chapter Infrequently Performed Activity Inservice Inspection LaSalle Fuel Procedure LaSalle Operating Surveillance Lake Screenhouse LaSalle Special Test LaSalle Technical Surveillance Magnetic Particle Testing Megawatts Electric Non-Cited Violation Operator Challenge Operability Evaluation Operator Workaround Post-Maintenance Test Penetrant Testing Qualified Nuclear Engineer Reactor Core Isolation Cooling Reactor Coolant System Residual Heat Removal Residual Heat Removal Residual Heat Removal Residual Heat Removal Residual Heat Removal Sector Protection System
RHRSW	Residual Heat Removal Service Water
ROP	Reactor Oversight Process
RPS	Reactor Protection System
RPV	Reactor Pressure Vessel
RR	Reactor Recirculation
RWLCS	Reactor Water Level Control System
SDP	Significance Determination Process

LIST OF ACRONYMS (con't)

SRV	Safety Relief Valve
SSC	Structure, System, or Component
TCV	Turbine Control Valve
TDRFP	Turbine-Drive Reactor Feedwater Pump
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
UT	Ultrasonic Testing
VC	Control Room Ventilation
VDC	Volt Direct Current
VE	Auxiliary Electric Equipment Room Ventilation
VX	Essential Switchgear Room Ventilation
WO	Work Order

LIST OF DOCUMENTS REVIEWED

Adverse Weather Protection

LOS-ZZ-A2	Preparation for Winter/Summer Operation	Revision 24
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Equipment Alignment

LOP-HP-2M	Unit 2 HPCS System Mechanical Checklist
LOP-HP-2E	Unit 2 HPCS System Electrical Checklist
LOP-RH-2M	Unit 2 B RHR System Mechanical Checklist
LOP-RH-3M	Unit 2 C RHR System Mechanical Checklist
LOP-RH-4E	Unit 2 B/C RHR System Electrical Checklist
LOP-RHRSW-2BM	Unit 2 B RHRSW System Mechanical Checklist
LOP-RHRSW-3E	Unit 2 B RHRSW System Electrical Checklist

Fire Protection

Updated Final Safety Analysis	Appendix H	Revision 13
Report		

Inservice Inspection

MT-EXLN- 102V0	Procedure for Magnetic Particle Examination Using AC Yoke, Dry Powder, or Wet Visible	January 5, 2002
PT-EXLN-104V0	Procedure for Liquid Penetrant Examination Color Contrast (Visible) Solvent Removable	January 5, 2002
GE-UT-311	Procedure for Manual Ultrasonic Examination of Nozzle Inner Radii and Bore	January 5, 2002
GE-PDI-UT-1	PDI Generic Procedure for the Ultrasonic Examination of Ferritic Piping Welds	January 5, 2002
GE-PDI-UT-2	PDI Generic Procedure for the Ultrasonic Examination of Austenitic Pipe Welds	January 5, 2002
ISI Program Plan	Second Ten-Year Inspection Interval, LaSalle County Nuclear Power Station, Units 1 and 2	December 14, 2001
CR 135708	Liquid Penetrant Examination Report Discrepancy	

Operator Licensing Requalification

ESG 50	CRD FCV Setpoint Failure/TDRFP Turbine Lube Oil Leak/Heater String Isolation/Loss of Stator Cooling/5-Rod ATWS	Revision 0
ESG47	RWLCS Trouble/Loss of RPS "A"/APRM "C" Failure/Loss of Both RR Pumps/Failure to Automatic Scram/"K" SRV Leakage/RHR Heat Exchanger Tube Rupture	Revision 0

Maintenance Risk Assessment and Emergent Work Evaluation

LaSalle 7-Day Look- Ahead Schedule	Various	
WO00490705	Change Control Power Fuse for 1AP76E-F3-F	October 1, 2002
EC338741	Change Control Power Fuse for 1AP76E-F3-F	September 24, 2002
LaSalle 3-Day Look- Ahead Schedule	Various	

Personnel Performance During Nonroutine Plant Evolutions

Drawing 1E-0-4432AG	Control Room HVAC System "VC" - Part 7	Revision P
Drawing 1E-0-4432AX	Control Room HVAC System "VC" - Part 22	Revision J
Drawing 1E-0-4432AJ	Control Room HVAC System "VC" - Part 9	Revision T
Drawing 1E-0-4432AM	Control Room HVAC System "VC" - Part 12	Revision J
Drawing 1E-0-4432BD	Control Room HVAC System "VC" - Part 28	Revision E
Drawing 1E-0-4432AL	Control Room HVAC Alarms System "VC" - Part 11	Revision H
Drawing 1E-0-4432BF	Control Room HVAC System "VC" - Part 30	Revision Q
Drawing 1E-0-4432BH	Control Room HVAC System "VC" - Part 32	Revision B
Drawing 1E-0-4432AW	Control Room HVAC System "VC" - Part 21	Revision F
Drawing 1E-0-4432AU	Control Room HVAC System "VC" - Part 19	Revision E
Drawing 1E-0-4432AN	Control Room HVAC System "VC" - Part 13	Revision N
Drawing 1E-0-4432AH	Control Room HVAC System "VC" - Part 8	Revision P
LFP-400-6	Installation and Operation of Sipping Equipment	Revision 6
LFP-400-1	Fuel and Nuclear Component Movements Within the Reactor and Spent Fuel Storage Pools	Revision 23

LST-2002-034	2B Diesel Generator Voltage Regulator PMT	Revision 0
CR 127728	2B Voltage Regulator Very Erratic	October 16, 2002
IPA Briefing Sheet	2B Diesel Generator Voltage Regulator PMT	Revision 0
WO 498416-01	Replace 2B Diesel Generator Voltage Regulator	
Vendor Manual J-157	Basler Diesel Generator Voltage Regulator	
EC 339411	Division 3 EDG Testing Assessment With Unit 2 in Mode 1	Revision 1
EC 339388	Failed Fuel Vacuum Sipping Equipment	Revision 0

Operability Evaluations

OE02-12	Unit 1 Turbine Control Valve (TCV) #1 Foreign Material	Revision 0
CR00120773	Unit 1 #1 Turbine Control Valve Strainer Plugged	August 27, 2002
CR00120659	Prompt Investigation Report - Unit 1 #1 Turbine Control Valve Strainer Plugged	Revision 0
EC339629	Unit 2 Safety Relief Valve (SRV) Piping Supports Pinned	Revision 0
Dwg M-900	Main Steam Piping	Sheet 19
Dwg M-900	Main Steam Piping	Sheet 10
Dwg M09- MS04-2604C	Support MS04-2604C	Sheet 1
Dwg M09- MS04-2605C	Support MS04-2605C	Sheet 1
Dwg M-900	Main Steam Piping	Sheet 24
OE02-04	Unit 1 Main Steam Isolation Valve Limit Switches	Revision 1

Operator Workarounds

Operator Workaround List		October 2, 2002
Operator Challenge 238	Emergency Diesel Generator Relief Valve Sticking	October 2, 2002

Post-Maintenance Testing

WO00468913	Replace Cell #23 For Unit 2 Division 2 125 VDC Battery	
LEP-DC-02	Individual or Multiple Battery Cell Performance Test	Revision 12
LEP-DC-03	Individual Battery Cell Modified Performance Test	Revision 0
LEP-DC-04	Installation of Division 2 Batteries	Revision 12
CR L2000-04873	Station Battery Evaluation	August 31, 2000
CR 129595	Foreign Material Noted in Several Battery Cells	October 30, 2002
LES-DC-101B	Division 2 125 Volt Battery Inspection for Units 1 and 2	Revision 10

Refueling and Outage Activities

LFP-400-1	Fuel and Nuclear Component Movements Within the Reactor and Spent Fuel Storage Pools	Revision 23
	L2P02 Shutdown Safety Management Program	October 8, 2002
EC 339413	Evaluate the Use of Spent Fuel Pool Cooling as an Alternate Decay Heat Removal Source for Shutdown Safety	Revision 0
EC 339466	Unit 2 Spent Fuel Pool Cooling System Heat Removal Capacity	Revision 0
NF0200148	LaSalle Unit 2 Cycle 9A Design Basis Loading Plan	Revision 0
NF0200149	L2C9A Fuel Move Sequence to Replace Failed Fuel Assemblies and Beginning of Cycle Shutdown Margin	Revision 0
PORC 02-30	Plant Onsite Review Committee (PORC) Approval of LaSalle Unit 2 Restart From L2P02	Revision 0
DCP 9900210	RPV Cavity Grating, Ladder, and Insulation Frame Bolting Modifications	October 21, 1999
LGP-1-1	Normal Unit Startup	Revision 68
LOP-FW-04	Startup of Turbine Driven Reactor Feed Pump (TDRFP)	Revision 36
LOP-RL-01	Operation of the Reactor Water Level Control System	Revision 16

Surveillance Testing

LOS-DG-M2	1A(2A) Diesel Generator Operability Test	Revision 52
LTS-200-19, Att. B	ECCS Cubicle Area Cooler Flowrate Test - Unit 2 HPCS Area Cooler	Revision 9
M-1366 Sheet 2	Unit 2 Reactor Building Ventilation System - 694'	Revision F
LTS-200-19, Att. B	ECCS Cubicle Area Cooler Flowrate Test - Unit 2 HPCS Area Cooler	June 1, 2001

Emergency Action Level and Emergency Plan Changes

LaSalle Station Annex to Exelon's Standardized Emergency Plan	Revision 11
LaSalle Station Annex to Exelon's Standardized Emergency Plan	Revision 12
LaSalle Station Annex to Exelon's Standardized Emergency Plan	Revision 13

Identification and Resolution of Problems

HU-AA-101	Human Performance Tools & Verification Practices	October 31, 2001
HU-AA- 1211	Pre-Job, Heightened Level of Awareness, Infrequent Plant Activity & Post Job Briefings	July 29, 2002
	Exelon Nuclear Human Performance Baseline Assessment	September 23, 2002
	Exelon Nuclear Human Performance Baseline Assessment	March 14, 2002
	LaSalle Station Human Performance Review - July 2002	August 28, 2002
	LaSalle Station Human Performance Review - August 2002	October 4, 2002

Event Followup

CR 132370	Powerplex Indication of Entry Into Region B - Extent of Condition	November 19, 2001
Prompt Investigation Report	Unplanned Entry Into Region B of the Power-to-Flow Map	
CR 103964	Unplanned Entry Into Region B of the Power-to-Flow Map	November 10, 2002

Root Cause Report	Unplanned Entry Into Region B of the Power-to-Flow Map	
LOA-RR-201 Attachment A	LaSalle County Station Power-to-Flow Map	Revision 0
Reactivity Maneuver (ReMa) Form	LaSalle Unit 2 - Withdrawal of Array 10B Rods	Cycle 9A
LAP-100-35	Reactivity Management Controls	Revision 12

Access Controls For Radiologically Significant Areas

RP-AA-222	Methods For Estimating Internal Exposure From <i>In Vivo</i> and <i>In Vitro</i> Bioassay Data	Revision 1
RP-AA-350	Assessment of Radiologically Contaminated Personnel	Revision 0
RP-AA-400	ALARA Program	Revision 2
RP-AA-401	Operational ALARA Planning and Controls	Revision 2
RP-AA-605	10 CFR 61 Program	Revision 0
CR 130190	Individual Not Following Radiologically Controlled Area Egress Procedure	November 4, 2002
CR 130198	Observed Individuals Deconning Themselves Without Radiation Protection Technician Help	November 2, 2002
CR 130270	Individual Not Monitoring Properly at Radiologically Controlled Area Egress	November 4, 2002
CR 130412	Contamination of Unit 2 820' Reactor Building During Backwash of 2B Reactor Water Cleanup Filter	November 6, 2002

Radioactive Material Processing and Transportation

RW-AA-100	Process Control Program for Radioactive Wastes	Revision 2
RP-AA-600	Radioactive Material/Waste Shipments	Revision 5
LAP-100-27	Guidelines for Radioactive Waste/Material Shipments	Revision 22
LOP-WX-26	Dry Active Waste Sorting For Radioactive Waste Packaging and Compaction	Revision 0

LOP-WX-29	Loading of Radioactive Waste Shipments Using High Integrity Containers	Revision 5
Report 01-071	2000 Annual Radioactive Effluent Report and Triannual Chlorine Survey Report	April 30, 2001
NOA-LS-01-3Q	Nuclear Oversight Continuous Assessment Report LaSalle Station July-September, 2001	October 25, 2001
Memorandum	LaSalle Station Focus Area Self Assessment on Radioactive Material Shipping	October 21, 2002
Memorandum	Focus Area Self-Assessment on Radwaste Material Condition/Equipment Reliability	July 2, 2002
CR 00082954	Inadequate Planning for Rad Material Shipment (SRVs)	June 25, 2002
CR 00085525	Inadequate Pre-Planning for CRD Shipment	December 5, 2001
CR 00091013	Failure to Follow the CRD Shipping Schedule	January 17, 2002
CR 00092513	Inadequate Communication Resulted in Delay of Radioactive Material Shipment	January 25, 2002
CR 00094766	Inadequate Planning for Radioactive Material Shipment	February 11, 2002
CR 00098690	Shipping/Shipper Qualifications Not Tracked Using PQD	March 11, 2002
CR 00114692	Delays in Electro-Hydraulic Control Fluid Sample Transfer	July 8, 2002
CR 00109212	PQD Implementation-DTC Concerns	November 11, 2001
CR 00111958	RW Solids Manager Has Not Completed Qualification Cards for Shipping	June 14, 2002
CR 00112133	Qualifications Tracking Deficiency/Focused Area Self-Assessment Documentation Condition Report #1	February 20, 2002
CR 00123259	Inadequate Drum Sealing Ring for Department of Transportation 7A Type A Container	September 17, 2002
CR 00127988	Radioactive Waste Manifest Software Error	October 15, 2002
CR 00129968	Unplanned Radioactive Material Shipment	October 31, 2002
CR 00113516	Inadequate Number of 4-Digit Orange Panels for Radioactive Material Shipment	June 25, 2002

1		
CR 00114141	Radwaste Shipment Issue	June 28, 2002
CR 00118691	Rad Waste Shipment Arrived at Wrong Destination	August 8, 2002
CR L2001- 02870	ALPS Area of Radwaste Truckbay Found Contaminated	May 12, 2001
CR L2001- 03295	Radwaste Shipping Cask Gasket Failure	June 5, 2001
CR L2001- 03728	Radwaste Discussion of Byron Event	June 22, 2001
CR L2001- 04878	Identified Safety Issue	August 23, 2001
CR 00113070	2A Phase Separator Transfer Loop Problems	June 24, 2002
CR 00130752	NRC Identified Radwaste IRSF Log Procedure Adherence Issue	November 6, 2002;
LW01-13	Radwaste Shipment Documentation Package	
LW01-27	Radwaste Shipment Documentation Package	
LW01-28	Radwaste Shipment Documentation Package	
LW02-08	Radwaste Shipment Documentation Package	
LW02-16	Radwaste Shipment Documentation Package	
LW02-17	Radwaste Shipment Documentation Package	