



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

October 31, 2011

Mr. Michael J. Pacilio  
Senior Vice President, Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO), Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2,  
NRC INTEGRATED INSPECTION REPORT  
05000373/2011004; 05000374/2011004

Dear Mr. Pacilio:

On September 30, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your LaSalle County Station, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on October 12, 2011, with the D. Rhoades, Site Vice President, 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.

Based on the results of this inspection, one NRC-identified finding of very low safety significance was identified. The finding involved a violation of NRC requirements. However, because of its very low safety significance, and because the issue was entered into your corrective action program, the NRC is treating the issue as a non-cited violation (NCV) in accordance with Section 2.3.2 of the NRC Enforcement Policy.

If you contest the subject or severity of this NCV, 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, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the LaSalle County Station.

M. Pacilio

-2-

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

***/RA/ By N. Shah Acting For/***

Kenneth Riemer, Chief  
Branch 2  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000373/2011004; 05000374/2011004  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 05000373; 05000374  
License Nos: NPF-11; NPF-18

Report No: 05000373/2011004; 05000374/2011004

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: Marseilles, IL

Dates: July 1, 2011, through September 30, 2011

Inspectors: R. Ruiz, Senior Resident Inspector  
F. Ramírez, Resident Inspector  
B. Kemker, Senior Resident Inspector, Clinton  
N. Shah, RIII Project Engineer  
S. Sheldon, RIII Senior Reactor Engineer  
M. Mitchell, RIII Health Physicist  
P. Cardona-Morales, RIII Reactor Engineer  
J. Corujo-Sandin, RIII Reactor Engineer  
D. Jones, RIII Reactor Inspector  
P. Smagacz, RIII Reactor Engineer  
J. Yesinowski, Illinois Dept. of Emergency Management

Approved by: Ken Riemer, Chief  
Branch 2  
Division of Reactor Projects

Enclosure

## TABLE OF CONTENTS

SUMMARY OF FINDINGS .....	1
REPORT DETAILS .....	2
Summary of Plant Status.....	2
1. REACTOR SAFETY .....	2
1R01 Adverse Weather Protection (71111.01).....	2
1R04 Equipment Alignment (71111.04).....	3
1R05 Fire Protection (71111.05) .....	4
1R06 Flooding (71111.06).....	5
1R11 Licensed Operator Requalification Program (71111.11).....	5
1R12 Maintenance Effectiveness (71111.12).....	6
1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13) .....	7
1R15 Operability Determinations and Functional Assessments (71111.15) .....	7
1R19 Post-Maintenance Testing (71111.19).....	8
1R21 Component Design Bases Inspection (71111.21).....	9
1R22 Surveillance Testing (71111.22) .....	11
1EP6 Drill Evaluation (71114.06).....	12
2. RADIATION SAFETY .....	13
2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06) .....	13
2RS7 Radiological Environmental Monitoring Program (71124.07).....	19
4. OTHER ACTIVITIES.....	21
4OA1 Performance Indicator Verification (71151).....	21
4OA2 Identification and Resolution of Problems (71152) .....	24
4OA3 Followup of Events and Notices of Enforcement Discretion (71153) .....	27
4OA5 Other Activities .....	30
4OA6 Management Meetings.....	31
SUPPLEMENTAL INFORMATION .....	1
Key Points of Contact.....	1
List of Items Opened, Closed and Discussed.....	2
List of Documents Reviewed .....	3
List of Acronyms Used .....	15

## SUMMARY OF FINDINGS

IR 05000373/2011004, 05000374/2011004, 07/01/2011 – 9/30/2011; LaSalle County Station, Units 1 & 2; Component Design Bases Inspection.

This report covers a three-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. One Green finding was identified by the inspectors. The finding was considered a non-cited violation (NCV) of U.S. Nuclear Regulatory Commission (NRC) regulations. 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 cross-cutting aspects were determined using IMC 0310, "Components Within the Cross-Cutting Areas." 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 4, dated December 2006.

### A. NRC-Identified and Self-Revealed Findings

#### Cornerstone: Mitigating Systems

- Green. The inspectors identified a finding of very low safety significance (Green) and associated NCV of Title 10 Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion III, "Design Control," involving the licensee's failure to perform adequate analysis to demonstrate that safety-related motors would start during a design basis event. The licensee entered this issue into the corrective action program (CAP) as Action Report (AR) 01139601 and conducted preliminary analysis to verify operability.

The licensee's failure to perform adequate analysis to demonstrate that motors would start during block loading was determined to be more than minor because there was reasonable doubt as to whether motors which are required to start at the onset of an accident would have adequate voltage to start, pending reanalysis. The inspectors determined that this was a design deficiency that did not result in loss of operability or functionality; and therefore, the finding was of very low safety significance (Green). This finding was determined not to have a cross-cutting aspect. (1R21.1)

### B. Licensee-Identified Violations

No violations were identified.

## REPORT DETAILS

### Summary of Plant Status

#### **Unit 1**

The unit began the inspection period operating at full power. On September 3, 2011, power was reduced to approximately 78 percent for control rod pattern adjustments, sequence exchange, scram timing and channel distortion testing. Unit 1 was restored to 100 percent power on September 4, 2011, where it remained for the rest of the inspection period.

#### **Unit 2**

The unit began the inspection period operating at full power. On August 21, 2011, power was reduced to 85 percent due to the failure of the 24A heater emergency drain valve level controller. Following repairs, the unit was restored to full power the next day. On August 27, 2011, power was reduced to approximately 75 percent for control rod pattern adjustments, sequence exchange, scram timing and channel distortion testing. In addition, main steam isolation valve and turbine control valve surveillances were performed. Unit 2 was restored to 100 percent power on August 28, 2011, where it remained for the rest of the inspection period.

### **1. REACTOR SAFETY**

#### **Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity**

#### 1R01 Adverse Weather Protection (71111.01)

##### .1 Readiness For Impending Adverse Weather Condition – Extreme Heat Conditions

##### a. Inspection Scope

The inspectors performed a detailed review of the licensee's procedures and preparations for operating the facility during an extended period of time when ambient outside temperature was high and the ultimate heat sink (UHS) was experiencing elevated temperatures. The inspectors focused on plant-specific design features and implementation of the procedures for responding to or mitigating the effects of these conditions on the operation of the facility's UHS, secondary side condenser pressures, and safety-related ventilation systems, e.g., auxiliary electrical equipment room ventilation and control room ventilation. Inspection activities included a review of the licensee's adverse weather procedures, continuous monitoring of the off-normal environmental conditions, and that operator actions specified by plant-specific procedures were appropriate to ensure operability of the facility's normal and emergency cooling systems.

This inspection constituted one readiness for impending adverse weather condition sample as defined in inspection procedure (IP) 71111.01-05.

##### b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- Unit 2 'A' diesel generator (DG);
- Unit 1 'A' residual heat removal (RHR) service water; and
- Unit common 'A' and 'B' control room ventilation.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Final Safety Analysis Report (UFSAR), Technical Specification (TS) requirements, outstanding work orders (WOs), condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted three partial system walkdown samples as defined in IP 71111.04-05.

b. Findings

No findings were identified.

.2 Semiannual Complete System Walkdown

a. Inspection Scope

On September 15, 2011, the inspectors performed a complete system alignment inspection of the Unit 1 high pressure core spray (HPCS) system to verify the functional capability of the system. This system was selected because it was considered both safety-significant and risk-significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment line ups, electrical power availability, system pressure and temperature indications, as appropriate, component labeling, component lubrication, component and equipment cooling, hangers and supports, operability of support systems, and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding WOs was performed to determine whether any

deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment to this report.

These activities constituted one complete system walkdown sample as defined in IP 71111.04-05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Unit 1, Elevation 710' 6" Fire Zone 2G;
- Unit 2, Elevation 710'6" Fire Zone 3G;
- Unit 1, Elevation 663' Fire Zone 2I2; and
- Unit 1, Elevation 768' Fire Zone 2E.

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan.

The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event.

Using the documents listed in the Attachment to this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP.

Documents reviewed are listed in the Attachment to this report.

These activities constituted four quarterly fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

No findings were identified.

1R06 Flooding (71111.06)

.1 Underground Vaults

a. Inspection Scope

The inspectors selected underground bunkers/manholes subject to flooding that contained cables whose failure could disable risk-significant equipment. The inspectors determined that the cables were not submerged, that splices were intact, and that appropriate cable support structures were in place. In those areas where dewatering devices were used, such as a sump pump, the device was operable and level alarm circuits were set appropriately to ensure that the cables would not be submerged. In those areas without dewatering devices, the inspectors verified that drainage of the area was available, or that the cables were qualified for submergence conditions. The inspectors also reviewed the licensee's CAP documents with respect to past submerged cable issues identified in the CAP to verify the adequacy of the corrective actions. The inspectors performed a walkdown of manholes number 4 and 6, which contained medium voltage cables and were subject to flooding. Specific documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted one underground vaults sample as defined in IP 71111.06-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On September 10, 2011, the inspectors observed two crews of licensed operators in the plant's simulator during licensed operator requalification training activities to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator requalification program sample as defined in IP 71111.11.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- HPCS relief valve maintenance; and
- DC systems.

The inspectors reviewed events such as where ineffective equipment maintenance had resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components (SSCs)/functions classified as (a)(2), or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

.1 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- Division I DG building ventilation relay;
- emergent Division I maintenance on DG building ventilation;
- Unit 2 24A and 25A feedwater isolations and unplanned downpower;
- Units 1 and 2 planned yellow risk;
- installation of online noble chemistry;
- Unit 2 #3 turbine stop valve alarm issue; and
- reactor core isolation cooling (RCIC) system unavailability during LIP-R2-604.

These activities were selected based on their potential risk significance relative to the Reactor Safety Cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

Specific documents reviewed during this inspection are listed in the Attachment to this report.

These maintenance risk assessments and emergent work control activities constituted seven samples as defined in IP 71111.13-05.

b. Findings

No findings of significance were identified.

1R15 Operability Determinations and Functional Assessments (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- Unit 1 'C' reactor building ventilation radiation monitor failure;
- Unit 1 Division II Ground;
- potential non-conservative TS action OpEval 11-002;

- Unit 2 RCIC high exhaust pressure switch failure; and
- AR 01241371, Gag high energy line break (HELB) door.

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to the licensee's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors reviewed a sampling of CAP documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment to this report.

This operability inspection constituted five samples as defined in IP 71111.15-05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed the following post-maintenance testing (PMT) activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- Unit 1 'B' DG, 'B' compressor discharge check valve;
- Unit 1 'A' fuel pool cooling pump run after outboard seal replacement;
- Unit 1 RHR Div II work window;
- 'A' control room ventilation and auxiliary electrical equipment room ventilation work window; and
- Unit 1 L1-1 pressure control valve after rebuild.

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against TSs, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors

reviewed CAP documents associated with PMT to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

This inspection constituted five PMT samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

1R21 Component Design Bases Inspection (71111.21)

.1 (Closed) Non-Conservative Voltage Input for Motor Starting Calculations (URI 05000373/2010006-05; 05000374/2010006-05)

a. Inspection Scope

The inspectors followed up on an Unresolved Item (URI) concerning the use of a non-conservative voltage input for motor starting calculations. During a Component Design Bases Inspection (CDBI) documented in Inspection Report (IR) 05000373/2010006, the inspectors had identified an issue involving the licensee's failure to use worst case voltage for motor starting calculations. The licensee had used a voltage based upon an administrative limit for switchyard voltage which was higher than the minimum voltage afforded by the degraded voltage protective scheme. At the time of the inspection, the issue was left unresolved pending resolution of differences in interpretation between the NRC and the licensee of the original licensing basis concerning motor-block-starting analysis. The inspectors coordinated with the Electrical Engineering Branch in the NRC Division of Engineering to verify that the licensee must demonstrate motor starting with the 4.16 kV Class 1E bus voltage at the lowest voltage level afforded by the degraded voltage protective scheme.

This inspection activity does not constitute a completed sample for IP 71111.21. This report section serves only to document the specific followup inspection activities performed to resolve URI 2010006-05.

b. Findings

Non-Conservative Voltage Input for Motor Starting Calculations

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," involving the licensee's failure to perform adequate analysis to demonstrate that safety-related motors would start during a design basis event. Specifically, the licensee failed to use worst case voltage with a representative model for motor starting calculations.

Description: The inspectors noted the UFSAR Question 40.102 dated July 1978 and NRC Safety Evaluation Report, NUREG-0519 dated March 1981 - Section 8.2.2.2, "Low And/Or Degraded Grid Voltage Condition" required the implementation of a second level undervoltage scheme to protect safety-related loads and stated, in part, "...the voltage and time setpoints will be determined from analysis of voltage requirements of

the safety-related loads.” In addition, UFSAR 8.2.3.2.2, “Criteria for Acceptable Voltage” states, in part, “The minimum acceptable level (i.e., starting voltage) for safety-related motors is based on the minimum equipment terminal voltages postulated at the lower analytical limit or design basis of the second level undervoltage protection setpoint.” LaSalle TS Table 3.3.8.1 specifies the allowable value for the degraded voltage relay voltage setpoint as  $\geq 3814\text{V}$  and  $\leq 3900\text{V}$ . Calculation AN71 also defines the analytical limit for the degraded voltage relay as 3814V (approximately 91.7 percent of 4160V). The inspectors noted Calculation L-003364 analyzed motor starting voltage during block loading using a switchyard voltage input of 352kV, which was intended to bound the minimum expected switchyard voltage of 354kV, defined in UFSAR 8.2.3.2, “Adequacy of Offsite Power.” This resulted in a safety bus voltage of approximately 3960V vs. the analytical limit of 3814V. This calculation was intended to demonstrate that design basis events at expected voltages would not result in disconnection from offsite power, but did not completely verify the adequacy of the setpoint.

Individual motor starting calculations were performed at the degraded voltage relay setpoint, however, this is not a representative model since during a design basis event motors are block started. A limiting block start that would result in a terminal voltage just above the relay reset, keeping the site connected to offsite power, would result in transient (starting) voltages lower than those analyzed. Therefore, the inspectors concluded that the results in Calculation L-003364 were non-conservative.

In response to the inspectors’ concerns, the licensee issued AR 01139601 and performed preliminary calculations with a proprietary electrical engineering computer software package using voltages based on the degraded voltage relay settings. These calculations showed the safety-related motors would start and accelerate satisfactorily. Based on these preliminary calculations the inspectors concluded this finding did not represent an operability concern.

Analysis: The inspectors determined that the failure to perform adequate analysis to demonstrate that safety-related motors would start during a design basis event was contrary to 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” and was a performance deficiency. The performance deficiency was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of Design Control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, there was reasonable doubt as to whether motors required to start at the onset of an accident would always have adequate voltage to start if the safety buses remained connected to offsite power, pending reanalysis.

The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, Attachment 04, and Table 4a for the Mitigating Systems Cornerstone. Based on the licensee’s preliminary calculations, the inspectors determined that this was a design deficiency that did not result in loss of operability or functionality, and therefore determined the finding was of very low safety significance (Green).

This finding was determined not to have a cross-cutting aspect as it was not reflective of current performance.

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion III, "Design Control" requires, in part, that design control measures provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of suitable testing program. Contrary to the above, as of November 11, 2010, the licensee's design control measures failed to verify the adequacy of the degraded voltage relay setpoint and time delay design. Specifically, the licensee failed to use worst case voltage with a representative model for motor starting calculations. Because this violation was of very low safety significance and because the issue was entered into the licensee's CAP as AR 01139601, this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy (NCV 05000373/2011004-01; 05000374/2011004-01; Non-Conservative Voltage Input for Motor Starting Calculations).

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- Unit 2 RCIC cold quick start (IST);
- LES-GM-109 motor control center 135X testing (Routine);
- LOS-DG-Q3: Unit 2 'B' DG circulating water pump test (Routine);
- DG undervoltage Relay Functional Test (Routine); and
- Division III DG fast start (Routine).

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- did preconditioning occur;
- were the effects of the testing adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- were acceptance criteria clearly stated, demonstrated operational readiness, and consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency was in accordance with TSs, the UFSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;

- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers (ASME) code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted four routine surveillance testing samples and one inservice testing sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on August 3, 2011, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the simulator to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the CAP. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the Attachment to this report.

This emergency preparedness drill inspection constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings were identified.

.2 Training Observation

a. Inspection Scope

The inspector observed a simulator training evolution for licensed operators on August 10, 2011, which required emergency plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator (PI) data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the CAP. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the Attachment to this report.

This inspection of the licensee's training evolution with emergency preparedness drill aspects constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings were identified.

**2. RADIATION SAFETY**

**Cornerstone: Public Radiation Safety**

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

This inspection constituted one complete sample as defined in IP 71124.06-05.

.1 Inspection Planning and Program Reviews (02.01)

Event Report and Effluent Report Reviews

a. Inspection Scope

The inspectors reviewed the radiological effluent release reports issued since the last inspection to determine if the reports were submitted as required by the TS/Offsite Dose Calculation Manual (ODCM). The inspectors reviewed anomalous results, unexpected trends, or abnormal releases identified by the licensee for further inspection to determine if they were evaluated, were entered in the CAP, and were adequately resolved.

The inspectors identified radioactive effluent monitor operability issues reported by the licensee as provided in effluent release reports, to review these issues during the onsite inspection, as warranted, given their relative significance and determine if the issues were entered into the CAP and adequately resolved.

b. Findings

No findings were identified.

## Offsite Dose Calculation Manual and Final Safety Analysis Report Review

### a. Inspection Scope

The inspectors reviewed UFSAR descriptions of the radioactive effluent monitoring systems, treatment systems, and effluent flow paths so they could be evaluated during inspection walkdowns.

The inspectors reviewed changes to the ODCM made by the licensee since the last inspection against the guidance in NUREG-1301 and 0133, and Regulatory Guides 1.109, 1.21 and 4.1. When differences were identified, the inspectors reviewed the technical basis or evaluations of the change during the onsite inspection to determine whether they were technically justified and maintain effluent releases as-low-as-is-reasonably-achievable.

The inspectors reviewed licensee documentation to determine if the licensee had identified any non-radioactive systems that had become contaminated as disclosed either through an event report or the ODCM since the last inspection. This review provided an intelligent sample list for the onsite inspection of any 10 CFR 50.59 evaluations and allowed a determination if any newly contaminated systems had an unmonitored effluent discharge path to the environment, whether any required ODCM revisions were made to incorporate these new pathways and whether the associated effluents were reported in accordance with Regulatory Guide 1.21.

### b. Findings

No findings were identified.

## Groundwater Protection Initiative Program

### a. Inspection Scope

The inspectors reviewed reported groundwater monitoring results and changes to the licensee's written program for identifying and controlling contaminated spills/leaks to groundwater.

### b. Findings

No findings were identified.

## Procedures, Special Reports, and Other Documents

### a. Inspection Scope

The inspectors reviewed Licensee Event Reports (LERs), event reports and/or special reports related to the effluent program issued since the previous inspection to identify any additional focus areas for the inspection based on the scope/breadth of problems described in these reports.

The inspectors reviewed effluent program implementing procedures, particularly those associated with effluent sampling, effluent monitor set-point determinations, and dose calculations.

The inspectors reviewed copies of licensee and third party (independent) evaluation reports of the effluent monitoring program since the last inspection to gather insights into the licensee's program and aid in selecting areas for inspection review.

b. Findings

No findings were identified.

.3 Walkdowns and Observations (02.02)

a. Inspection Scope

The inspectors walked down selected components of the gaseous and liquid discharge systems to verify that equipment configuration and flow paths align with the documents reviewed in Section 02.01 above and to assess equipment material condition.

Special attention was made to identify potential unmonitored release points (such as open roof vents in boiling water reactor turbine decks, temporary structures butted against turbine, auxiliary or containment buildings), building alterations which could impact airborne, or liquid, effluent controls, and ventilation system leakage that communicates directly with the environment.

For equipment or areas associated with the systems selected for review that were not readily accessible due to radiological conditions, the inspectors reviewed the licensee's material condition surveillance records, as applicable.

The inspectors walked down filtered ventilation systems to verify there were no conditions, such as degraded high-efficiency particulate air/charcoal banks, improper alignment, or system installation issues that impacted the performance, or the effluent monitoring capability, of the effluent system.

As available, the inspectors observed selected portions of the routine processing and discharge of radioactive gaseous effluent (including sample collection and analysis) to verify that appropriate treatment equipment was used and the processing activities aligned with discharge permits.

The inspectors determined if the licensee had made significant changes to their effluent release points, e.g., changes subject to a 10 CFR 50.59 review or which required NRC approval of alternate discharge points.

As available, the inspectors observed selected portions of the routine processing and discharge liquid waste (including sample collection and analysis) to verify that appropriate effluent treatment equipment was being used and that radioactive liquid waste was being processed and discharged in accordance with procedure requirements and aligned with discharge permits.

b. Findings

No findings were identified.

.4 Sampling and Analyses (02.03)

a. Inspection Scope

The inspectors selected effluent sampling activities, consistent with smart sampling, and assessed whether adequate controls had been implemented to ensure representative samples were obtained (e.g., provisions for sample line flushing, vessel recirculation, composite samplers, etc.).

The inspectors selected effluent discharges made with inoperable (declared out-of-service) effluent radiation monitors to verify that controls were in place to ensure compensatory sampling was performed consistently with the radiological effluent TS/ODCM and that those controls were adequate to prevent the release of unmonitored liquid and gaseous effluents.

The inspectors determined whether the facility was routinely relying on the use of compensatory sampling in lieu of adequate system maintenance, based on the frequency of compensatory sampling since the last inspection.

The inspectors reviewed the results of the inter-laboratory comparison program to verify the quality of the radioactive effluent sample analyses and assessed whether the inter-laboratory comparison program included hard-to-detect isotopes as appropriate.

b. Findings

No findings were identified.

.5 Instrumentation and Equipment (02.04)

Effluent Flow Measuring Instruments

a. Inspection Scope

The inspectors reviewed the methodology the licensee used to determine the effluent stack and vent flow rates to verify that the flow rates were consistent with radiological effluent TS/ODCM or UFSAR values, and that differences between assumed and actual stack and vent flow rates did not affect the results of the projected public doses.

b. Findings

No findings were identified.

Air Cleaning Systems

a. Inspection Scope

The inspectors assessed whether surveillance test results since the previous inspection for TS required ventilation effluent discharge systems (high-efficiency particulate air and charcoal filtration), such as the Standby Gas Treatment System (SBGT) and the Containment/Auxiliary Building Ventilation System, met TS acceptance criteria.

b. Findings

No findings were identified.

.6 Dose Calculations (02.05)

a. Inspection Scope

The inspectors reviewed all significant changes in reported dose values compared to the previous radiological effluent release report (e.g., a factor of 5, or increases that approach Appendix I criteria) to evaluate the factors which may have resulted in the change.

The inspectors reviewed radioactive liquid and gaseous waste discharge permits to verify that the projected doses to members of the public were accurate and based on representative samples of the discharge path.

Inspectors evaluated the methods used to determine the isotopes that were included in the source term to ensure all applicable radionuclides were included, within detectability standards. The review included the current Part 61 analyses to ensure hard-to-detect radionuclides were included in the source term.

The inspectors reviewed changes in the licensee's offsite dose calculations since the last inspection to verify the changes were consistent with the ODCM and Regulatory Guide 1.109. Inspectors reviewed meteorological dispersion and deposition factors used in the ODCM and effluent dose calculations to ensure appropriate factors were being used for public dose calculations.

The inspectors reviewed the latest Land Use Census to verify that changes (e.g., significant increases or decreases to population in the plant environs, changes in critical exposure pathways, the location of nearest member of the public or critical receptor, etc.) were factored into the dose calculations.

For the releases reviewed above, the inspectors evaluated whether the calculated doses (monthly, quarterly, and annual dose) were within the 10 CFR Part 50, Appendix I and TS dose criteria.

The inspectors reviewed, as available, records of any abnormal gaseous or liquid tank discharges (e.g., discharges resulting from misaligned valves, valve leak-by, etc.) to ensure the abnormal discharge was monitored by the discharge point effluent monitor. Discharges made with inoperable effluent radiation monitors, or unmonitored leakages were reviewed to ensure that an evaluation was made of the discharge to satisfy 10 CFR 20.1501 so as to account for the source term and projected doses to the public.

b. Findings

No findings were identified.

.7 Groundwater Protection Initiative Implementation (02.06)

a. Inspection Scope

The inspectors reviewed monitoring results of the Groundwater Protection Initiative to determine if the licensee had implemented its program as intended, and to identify any anomalous results. For anomalous results or missed samples, the inspectors assessed whether the licensee had identified and addressed deficiencies through its CAP.

The inspectors reviewed identified leakage or spill events and entries made into 10 CFR 50.75 (g) records. The inspectors reviewed evaluations of leaks or spills, and reviewed any remediation actions taken for effectiveness. The inspectors reviewed onsite contamination events involving contamination of ground water and assessed whether the source of the leak or spill was identified and mitigated.

For unmonitored spills, leaks, or unexpected liquid or gaseous discharges, the inspectors assessed whether an evaluation was performed to determine the type and amount of radioactive material that was discharged by:

- assessing whether sufficient radiological surveys were performed to evaluate the extent of the contamination and the radiological source term and assessing whether a survey/evaluation has been performed to include consideration of hard-to-detect radionuclides; and
- determining whether the licensee completed offsite notifications, as provided in its Groundwater Protection Initiative implementing procedures.

The inspectors reviewed the evaluation of discharges from onsite surface water bodies that contain or potentially contain radioactivity, and the potential for ground water leakage from these onsite surface water bodies. The inspectors assessed whether the licensee had properly accounted for discharges from these surface water bodies as part of their effluent release reports.

The inspectors assessed whether onsite ground water sample results and a description of any significant onsite leaks/spills into ground water for each calendar year were documented in the Annual Radiological Environmental Operating Report for the radiological environmental monitoring program or the Annual Radiological Effluent Release Report for the radiological effluent TS.

For significant, new effluent discharge points, such as significant or continuing leakage to ground water that continued to impact the environment if not remediated, the inspectors evaluated whether the ODCM was updated to include the new release point.

b. Findings

No findings were identified.

.8 Problem Identification and Resolution (02.07)

a. Inspection Scope

Inspectors assessed whether problems associated with the effluent monitoring and control program were being identified by the licensee at an appropriate threshold and

were properly addressed for resolution in the licensee CAP. In addition, they evaluated the appropriateness of the corrective actions for a selected sample of problems documented by the licensee involving radiation monitoring and exposure controls.

b. Findings

No findings were identified.

2RS7 Radiological Environmental Monitoring Program (71124.07)

This inspection constituted one complete sample as defined in IP 71124.07-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the annual radiological environmental operating reports and the results of any licensee assessments since the last inspection to verify that the radiological environmental monitoring program was implemented in accordance with the TS and ODCM. This review included report changes to the ODCM with respect to environmental monitoring, commitments in terms of sampling locations, monitoring and measurement frequencies, land use census, inter-laboratory comparison program, and analysis of data.

The inspectors reviewed the ODCM to identify locations of environmental monitoring stations.

The inspectors reviewed the UFSAR for information regarding the environmental monitoring program and meteorological monitoring instrumentation.

The inspectors reviewed quality assurance audit results of the program to assist in choosing inspection “smart samples” and audits and technical evaluations performed on the vendor laboratory program.

The inspectors reviewed the annual effluent release report and the 10 CFR Part 61, “Licensing Requirements for Land Disposal of Radioactive Waste,” report, to determine if the licensee was sampling, as appropriate, for the predominant and dose-causing radionuclides likely to be released in effluents.

b. Findings

No findings were identified.

.2 Site Inspection (02.02)

a. Inspection Scope

The inspectors walked down select air sampling stations and thermoluminescent dosimeter monitoring stations to determine whether they were located as described in the ODCM and to determine the equipment material condition. Consistent with smart sampling, the air sampling stations were selected based on the locations with the highest X/Q (relative effluent concentration), D/Q (relative deposition factor) wind sectors, and thermoluminescent dosimeters were selected based on the most

risk-significant locations (e.g., those that have the highest potential for public dose impact).

For the air samplers and thermoluminescent dosimeters selected, the inspectors reviewed the calibration and maintenance records to verify that they demonstrated adequate operability of these components. Additionally, the review included the calibration and maintenance records of select composite water samplers.

The inspectors performed an assessment of whether the licensee had initiated sampling of other appropriate media upon loss of a required sampling station.

The inspectors observed the collection and preparation of environmental samples from different environmental media (e.g., ground and surface water, milk, vegetation, sediment, and soil) as available to verify that environmental sampling was representative of the release pathways as specified in the ODCM and that sampling techniques were in accordance with procedures.

Based on direct observation and review of records, the inspectors assessed whether the meteorological instruments were operable, calibrated, and maintained in accordance with guidance contained in the UFSAR, NRC Regulatory Guide 1.23, "Meteorological Monitoring Programs for Nuclear Power Plants," and licensee procedures. The inspectors assessed whether the meteorological data readout and recording instruments in the control room and, if applicable, at the tower were operable.

The inspectors evaluated whether missed and/or anomalous environmental samples were identified and reported in the annual environmental monitoring report. The inspectors selected events that involved a missed sample, inoperable sampler, lost thermoluminescent dosimeter, or anomalous measurement to verify that the licensee has identified the cause and had implemented corrective actions. The inspectors reviewed the licensee's assessment of any positive sample results (i.e., licensed radioactive material detected above the lower limits of detection) and reviewed the associated radioactive effluent release data that was the source of the released material.

Inspectors selected structures, systems, or components that involve or could reasonably involve licensed material for which there was a credible mechanism for licensed material to reach ground water, and assessed whether the licensee has implemented a sampling and monitoring program sufficient to detect leakage of these structures, systems, or components to ground water.

The inspectors evaluated whether records, as required by 10 CFR 50.75(g), of leaks, spills, and remediation since the previous inspection are retained in a retrievable manner.

The inspectors reviewed any significant changes made by the licensee to the ODCM as the result of changes to the land census, long-term meteorological conditions (3-year average), or modifications to the sampler stations since the last inspection. They reviewed technical justifications for any changed sampling locations to verify that the licensee performed the reviews required to ensure that the changes did not affect its ability to monitor the impacts of radioactive effluent releases on the environment.

The inspectors assessed whether the appropriate detection sensitivities with respect to TS/ODCM were used for counting samples (i.e., the samples meet the TS/ODCM-required lower limits of detection). The licensee uses a vendor laboratory to analyze the radiological environmental monitoring program samples so the inspectors reviewed the results of the vendor's quality control program, including the inter-laboratory comparison, to assess the adequacy of the vendor's program.

The inspectors reviewed the results of the licensee's inter-laboratory comparison program to verify the adequacy of environmental sample analyses performed by the licensee. The inspectors assessed whether the inter-laboratory comparison test included the media/nuclide mix appropriate for the facility. If applicable, the inspectors reviewed the licensee's determination of any bias to the data and the overall effect on the radiological environmental monitoring program.

b. Findings

No findings were identified.

.3 Identification and Resolution of Problems (02.03)

a. Inspection Scope

The inspectors assessed whether problems associated with the radiological environmental monitoring program were being identified by the licensee at an appropriate threshold and are properly addressed for resolution in the licensee's CAP. Additionally, they assessed the appropriateness of the corrective actions for a selected sample of problems documented by the licensee that involved the radiological environmental monitoring program.

b. Findings

No findings were identified.

**4. OTHER ACTIVITIES**

**Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness**

40A1 Performance Indicator Verification (71151)

.1 Mitigating Systems Performance Index - Emergency AC Power System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index (MSPI) - emergency AC power system PI, Units 1 and 2, for the period from the third quarter 2010 through the first quarter 2011. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, were used. The inspectors reviewed the licensee's operator narrative logs, MSPI derivation reports, ARs, event reports and NRC Integrated IRs for the period of July 2010 through March 2011 to

validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's CAP database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI emergency AC power system samples as defined in IP 71151 05.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index - High Pressure Injection Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI - High Pressure Injection Systems PI for Units 1 and 2 for the period from the fourth quarter 2010 through the third quarter 2011. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in NEI 99-02, Revision 6, dated October 2009, were used. The inspectors reviewed the licensee's operator narrative logs, ARs, MSPI derivation reports, event reports and NRC Integrated IRs for the period of October 2010 through September 2011 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI high pressure injection system samples as defined in IP 71151-05.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index - Residual Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI - RHR System PI for Units 1 and 2 for the period from the fourth quarter 2010 through the third quarter 2011. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, MSPI derivation reports, event reports and NRC Integrated IRs for the period of October 2010 through September 2011 to validate the accuracy of the submittals. The inspectors reviewed the

MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI RHR system samples as defined in IP 71151-05.

b. Findings

No findings were identified.

.4 Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors sampled licensee submittals for the reactor coolant system specific activity PI for LaSalle County Station Units 1 and 2 for the period from the second quarter 2010 through the first quarter 2011. The inspectors used PI definitions and guidance contained in NEI 99-02, Revision 6, dated October 2009, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's reactor coolant system chemistry samples, TS requirements, ARs, event reports, and NRC Integrated IRs for the period of second quarter 2010 through the first quarter 2011 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. In addition to record reviews, the inspectors observed a chemistry technician obtain and analyze a reactor coolant system sample. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two reactor coolant system specific activity samples as defined in IP 71151-05.

b. Findings

No findings were identified.

.5 Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspectors sampled licensee submittals for the occupational radiological occurrences PI for the period from the second quarter 2010 through the second quarter 2011. The inspectors used PI definitions and guidance contained in NEI 99-02, Revision 6, dated October 2009, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's assessment of the PI for occupational radiation safety to determine if indicator related data was adequately assessed and reported. To assess the adequacy of the licensee's PI data collection and analyses, the inspectors discussed with radiation protection staff, the scope and breadth of its data review and the results of those reviews. The inspectors independently reviewed electronic personal dosimetry dose rate and accumulated dose alarms and

dose reports and the dose assignments for any intakes that occurred during the time period reviewed to determine if there were potentially unrecognized occurrences. The inspectors also conducted walkdowns of numerous locked high and very high radiation area entrances to determine the adequacy of the controls in place for these areas. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one occupational exposure control effectiveness sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.6 Radiological Effluent Technical Specification/Offsite Dose Calculation Manual  
Radiological Effluent Occurrences

a. Inspection Scope

The inspectors sampled licensee submittals for the radiological effluent TS/ODCM radiological effluent occurrences PI for the period from the first quarter 2010 through the second quarter 2011. The inspectors used PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's issue report database and selected individual reports generated since this indicator was last reviewed to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have impacted offsite dose. The inspectors reviewed gaseous effluent summary data and the results of associated offsite dose calculations for selected dates between the first quarter 2010 through the second quarter 2011 to determine if indicator results were accurately reported. The inspectors also reviewed the licensee's methods for quantifying gaseous and liquid effluents and determining effluent dose. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one Radiological Effluent TS/ODCM radiological effluent occurrences sample as defined in IP 71151-05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

**Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Physical Protection**

.1 Routine Review of Items Entered into the Corrective Action Program

a. Inspection Scope

As part of the various baseline IPs discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's CAP at an

appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: identification of the problem was complete and accurate; timeliness was commensurate with the safety significance; evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent-of-condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's CAP as a result of the inspectors' observations are included in the Attachment to this report.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for followup, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily condition report packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings were identified.

.3 Annual Sample: Review of Operator Workarounds

a. Inspection Scope

The inspectors evaluated the licensee's implementation of their process used to identify, document, track, and resolve operational challenges. Inspection activities included, but were not limited to, a review of the cumulative effects of the operator workarounds (OWAs) on system availability and the potential for improper operation of the system, for potential impacts on multiple systems, and on the ability of operators to respond to plant transients or accidents.

The inspectors performed a review of the cumulative effects of OWAs. The documents listed in the Attachment to this report were reviewed to accomplish the objectives of the IP. The inspectors reviewed both current and historical operational challenge records to determine whether the licensee was identifying operator challenges at an appropriate

threshold, had entered them into their CAP and proposed or implemented appropriate and timely corrective actions which addressed each issue. Reviews were conducted to determine if any operator challenge could increase the possibility of an Initiating Event, if the challenge was contrary to training, required a change from long-standing operational practices, or created the potential for inappropriate compensatory actions. Additionally, all temporary modifications were reviewed to identify any potential effect on the functionality of Mitigating Systems, impaired access to equipment, or required equipment uses for which the equipment was not designed. Daily plant and equipment status logs, degraded instrument logs, and operator aids or tools being used to compensate for material deficiencies were also assessed to identify any potential sources of unidentified operator workarounds.

This review constituted one operator workaround annual inspection sample as defined in IP 71152-05.

b. Findings

No findings were identified.

.4 Selected Issue Followup Inspection: HELB Issues

a. Inspection Scope

During a review of items entered in the licensee's CAP, the inspectors recognized a CAP item documenting the assessment of applicability to LaSalle for a HELB-related issue at another fleet facility. In addition to assessing the adequacy of the licensee's assessment, the inspectors also reviewed a sample of HELB-related ARs from a historical search in the CAP from over the past two years to identify any underlying negative trends or signs of misapplication of HELB/hazard barrier analysis guidelines, such as Regulatory Information Summary 2001-009, "Control of Hazard Barriers."

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05.

b. Findings

No findings were identified.

.5 Selected Issue Followup Inspection: Ultimate Heat Sink Temperature Issue

a. Inspection Scope

The inspectors reviewed AR 01146236, which called into question the UHS historical temperature value used in Engineering Changes (ECs) 375883 and 380062 for the measurement uncertainty recapture power uprate calculations. The concern raised by the licensee's engineering staff stemmed from the August 2010 occurrence of the UHS temperature reaching 101.4 F, which was greater than the peak historical value of 98 F used as an assumption in the above ECs for measurement uncertainty recapture. The licensee individual was concerned that the calculations in the ECs should be revisited utilizing the new historical peak lake temperature. The inspectors noted that the AR was closed to a number of corrective actions stemming from the UHS temperature event in August 2010 (AR 01101063).

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05.

b. Findings

No findings were identified.

4OA3 Followup of Events and Notices of Enforcement Discretion (71153)

.1 (Closed) LER 05000373/2010003-00/01; 05000374/2010003-00/01: Standby Liquid Control Test Tank Seismic Analysis

The event described in LER 373/2010-003-00; 374/2010-003-00 was identified as part of an NRC CDBI on October 2010. During the inspection the seismic analysis of the Unit 1 and Unit 2 Standby Liquid Control (SBLC) system test tank was challenged. The CDBI inspectors identified a green finding and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to have an adequate calculation to demonstrate the seismic qualification of the SBLC system test tanks. The violation, "Supporting Structure for Standby Liquid Control (SBLC) System Test Tank Non-Functional During Postulated Design Basis Earthquake" was documented in the CDBI report as 05000373/2010006-01; 05000374/2010006-01.

While reviewing the LER for closure the resident inspectors identified an error in the reporting requirements selected by the licensee. The licensee failed to include reporting requirement 50.73(a)(2)(v)(D); Any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident. However, the licensee had already included in the LER reporting requirements 50.73(a)(2)(v)(A) and 50.73(a)(2)(v)(C). This failure to comply with 10 CFR Part 50.73 constitutes a violation of minor significance that is not subject to enforcement action in accordance with the NRC's Enforcement Policy. The licensee has documented this issue in AR 01235063. As part of their corrective actions the licensee submitted an amended LER, 05000373/2010003-01; 05000374/2010003-01, which is also hereby closed.

This event followup review constituted one sample as defined in IP 71153-05.

a. Findings

No findings were identified.

.2 (Closed) LER 05000373/2011001-00: Automatic Reactor Scram Due to Main Power Transformer "C" Phase Electric Fault

a. Inspection Scope

On February 1, 2011, LaSalle Unit 1 automatically scrambled from 100% power. The scram was due to main generator load reject caused by a fault on the C-phase of the 1W Main Power Transformer (1W MPT).

The licensee investigation determined that the root cause of the event was an electrical flashover on the external bushing of the "C" phase due to moist snow and ice buildup along the exterior skirts of the 1W MPT that surpassed its flashover resistance

(i.e., creep length rating) during unusual adverse weather conditions at the time of the event.

The licensee corrective actions included the replacement of the C-phase bushing, the C corona ring and the MPT mechanical relief valve which were damaged during the event. Corrective actions to minimize recurrence, the licensee planning to replace the MPT bushings in the next outages with more robust anti-flashover design that exceeds minimum basic insulation level rating and adds more margin to the creep length.

The inspectors reviewed the event described in LER 05000373/2011-01-00 for accuracy and potential violations. In addition, as part of the assessment, the inspectors reviewed the root cause investigation report, the extent-of-condition review and the adequacy of the corrective actions performed by the licensee. Documents reviewed as part of this inspection are listed in the Attachment to this report. This LER is closed.

This event followup review constituted one sample as defined in IP 71153-05.

b. Findings

No findings were identified.

3. (Closed) LER 05000373/2011002-00: "Unit Shutdown Required by Plant Technical Specifications Due to Pressure Boundary Leakage"

a. Inspection Scope

The inspectors reviewed the licensee's response to the unplanned shutdown of Unit 1 on February 9, 2011. Prior to the shutdown, Unit 1 was in mode 2 (Startup) following a forced outage. During a walkdown of the drywell, the licensee observed a steam leak from the RCIC steam supply inboard isolation bypass valve. The leak originated from the valve bonnet extension-to-bonnet upper seal weld. Since the leak was considered pressure boundary leakage, Unit 1 was shutdown in accordance with TS 3.4.5, Condition C. Subsequently, the seal weld was repaired and Unit 1 was restarted on February 10, 2011.

The licensee determined the steam leak was caused by degradation of a weld defect or discontinuity from the original weld construction. Specifically, system loading and conditions due to normal plant operation eventually caused through wall leakage. The licensee had never performed work on the upper seal weld since original installation of the valve and had not observed any adverse trends suggesting any reoccurring failure mechanisms that needed addressing. Based on inspection and testing history, the licensee believed that the leak likely developed following the last refueling outage in February, 2010, when the valve was last inspected, and the beginning of the forced outage of February 2, 2011. However, because of the limited available information, a specific failure mechanism was not determined.

In addition to repairing the valve, the licensee initiated an action to obtain a spare valve as the original manufacturer for this valve no longer exists.

The inspectors' review of the LER did not identify any issues. Documents reviewed in this inspection are listed in the Attachment to this report. This LER is closed.

This event followup review constituted one sample as defined in IP 71153-05.

b. Findings

No findings were identified.

.4 (Closed) LER 05000373/2011003-00; 05000374/2011003-00: "Secondary Containment Inoperable"

a. Inspection Scope

The inspectors reviewed the licensee's response to the unplanned loss of Unit 1 secondary containment on March 2, 2011. While Unit 1 was operating at full power and Unit 2 was in a refueling outage with fuel moves in progress, a control room operator noted that secondary containment vacuum was 0.17 inch of vacuum water gauge, below the TS limit of 0.25 inch of vacuum water gauge. Secondary containment was immediately declared inoperable, the Unit 2 fuel moves were suspended, and a four hour timeclock was entered to restore secondary containment to operable status in accordance with TS 3.6.4.1. Shortly thereafter, secondary containment vacuum indication returned to a normal value of 0.5 inches vacuum water gauge and secondary containment was declared operable.

The licensee could not determine the cause of the event, but suspected that it was likely due to both Unit 2 steam tunnel airlock doors being simultaneously opened to support work activities in the area. Corrective actions included posting all secondary containment airlock doors to preclude simultaneous opening of both doors and providing additional training to plant personnel about this event. Additionally, a work request was initiated to inspect the steam tunnel airlock door interlock magnets and switches during the next refueling outage.

The inspectors' review of this event was documented in IR 2011-002. One finding of very low safety significance (Green) and two NCVs were identified and documented in the subject report. One of the NCVs was for the failure to report this event in accordance with 10 CFR 50.72. The licensee subsequently initiated the LER on April 29, 2011.

The inspectors' review of the LER did not identify any new issues. Documents reviewed in this inspection are listed in the Attachment to this report. This LER is closed.

This event followup review constituted one sample as defined in IP 71153-05.

b. Findings

No findings were identified.

#### 4OA5 Other Activities

.1 (Closed) URI 05000373/2011003-02; 05000374/2011003-02, "Potential Failure to Follow Work Instructions and Maintenance Process Associated with Activities Affecting the Stand-by Liquid Control (SBLC) System"

a. Inspection Scope

The inspectors reviewed unresolved item (URI) 05000373/2011003-02 and 05000374/2011003-02. During the previous inspection quarter (second quarter 2011), during a routine PMT inspection, the inspectors identified an issue associated with the potential failure to follow work instructions and maintenance process associated with activities affecting the SBLC system. Specifically, the SBLC storage tank chemistry was not being consistently sampled, as specified in the work instructions, following planned maintenance and diagnostic testing on the tank outlet valve (1C41-F001A). This work could potentially have placed the solution tank concentration outside the TS-specified value. In addition, the inspectors had identified that licensee was also in violation of procedure MA-AA-716-010, "Maintenance Planning." This procedure requires a screening and documentation of any changes to work instructions. The licensee was unable to provide verification that this screening was performed or documented in accordance with the maintenance planning procedure.

The licensee entered this issue into its CAP as AR 1234657. In addition to interviewing licensee staff, the inspectors reviewed various documents such as control room logs, ARs and operating procedures. The inspectors also assessed the adequacy of the corrective actions implemented by the licensee. During the review, the inspectors identified a performance deficiency in that the licensee failed to meet the requirements of both the work instructions and of the maintenance planning procedure, as discussed above. This issue screened as minor using the IMC 0612, Appendix B, "Issue Screening," since the SBLC storage tank chemistry was maintained within TS-allowed limits at all times and the licensee had built in a margin of 20 gallons such that, even if some water leaked into the tank during the testing of the outlet valve, the concentration would have been minimally impacted.

The licensee's corrective actions included training the senior reactor operators that would be responsible for changing work instructions on the proper usage of MA-AA-716-010, "Maintenance Planning." This procedure provides steps on how to implement and document changes in work instructions. In addition, corrective actions now require sampling of the SBLC storage tank to be performed in every instance following the cycling of the tank outlet valve.

The inspectors' review of this issue was considered to be a part of the original inspection effort, and as such did not constitute any additional inspection samples. This URI is considered closed.

#### 4OA6 Management Meetings

##### .1 Exit Meeting Summary

On October 12, 2011, the inspectors presented the inspection results to Mr. D. Rhoades, Site Vice President, and other members of his staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

##### .2 Interim Exit Meetings

Interim exits were conducted for:

- resolution of URI 05000373/2010006-05; 05000374/2010006-05 was discussed on August 11, 2011, with Acting Site Vice President, Mr. P. Karaba and others; and
- radioactive gaseous and liquid effluent treatment and radiological environmental monitoring inspection results were discussed with Mr. D. Rhoades, Site Vice President on July 22, 2011.

The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

D. Rhoades, Site Vice President  
P. Karaba, Plant Manager / Acting Site Vice President  
H. Vinyard, Acting Plant Manager  
J. Houston, Regulatory Assurance  
J. Kutches, Manager of Projects  
K. Hedgspeth, RP Manager  
B. Maze, ISFSI Project Manager  
J. Fiesel, Maintenance Director  
S. Shields, Regulatory Assurance  
T. Simpkin, Regulatory Assurance Manager  
J. Washko, Operations Director  
J. Vergara, Regulatory Assurance  
W. Trafton, Work Management Director  
J. Bauer, Site Training Director  
K. Lyons, Chemistry Manager  
C. Wilson, Station Security Manager

#### Nuclear Regulatory Commission

K. Riemer, Chief, Reactor Projects Branch 2  
B. Dickson, Branch Chief, Plant Support Team  
A. Stone, Chief, Reactor Safety Engineering Branch 2

## LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

### Opened

05000373/2011004-01; 05000374/2011004-01	NCV	Non-Conservative Voltage Input for Motor Starting Calculations (Section 1R21.1)
---	-----	---

### Closed

05000373/2010003-00/01; 05000374/2010003-00/01	LER	Standby Liquid Control Test Tank Seismic Analysis (Section 4OA3)
05000373/2011001-00	LER	Automatic Reactor Scram Due to Main Power Transformer "C" Phase Electric Fault (Section 4OA3)
05000373/2011002-00	LER	Unit Shutdown Required by Plant Technical Specifications Due to Pressure Boundary Leakage (Section 4OA3)
05000373/2011003-00; 05000374/2011003-00	LER	Secondary Containment Inoperable (Section 4OA3)
05000373/2011004-01; 05000374/2011004-01	NCV	Non-Conservative Voltage Input for Motor Starting Calculations (Section 1R21.1)
05000373/2010006-05; 05000374/2010006-05	URI	Non-Conservative Voltage Input for Motor Starting Calculations (Section 1R21.1)
05000373/2011003-02; 05000374/2011003-02	URI	Potential Failure to Follow Work Instructions and Maintenance Process Associated with Activities Affecting the Stand-by Liquid Control (SBLC) System (Section 4OA5)

### Discussed

None.

## LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### 1R01 Adverse Weather Protection

#### Procedures:

- EN-LA-40200005; Cooling Lake Temperature High; Rev. 15
- LOA-CW-101; Unit 1 Circulating Water System Abnormal; Rev. 17

#### Action (Issue) Reports:

- 1246620; Entered ACMP Action Condition for High Cond Backpressure
- 1246554; Unit 1/Unit 2 Average CW Inlet Temperature Exceeded 99 degrees F

#### Miscellaneous:

- Lake Temperature Trend Graph; 8/1/2011 – 8/2/2011
- LSCS-UFSAR; 9.2 Water Systems; Rev. 13
- LSCS-UFSAR 9.2.6; Ultimate Heat Sink; Rev. 19
- Operator Log Entries Report; 8/1/2011 – 8/2/2011
- Operations Log; 08/2/2011

### 1R04 Equipment Alignment

#### Procedures:

- LOP-HP-03; Preparation for Standby Operation of High Pressure Core Spray System (HPCS)

#### Action (Issue) Reports:

- 112224; DES Eng IDS Fermi/Braidwood CDBI Issue Applicable to LaSalle
- 965938; 2E22-N013 HPCS Low Pressure Gauge/Switch Pegged High

#### Miscellaneous:

- LOP- DG-04E; Unit 2 A Diesel Generator Electrical Checklist; Rev. 9
- LOP-DG-04M; Unit 2 A Diesel Generator Mechanical Checklist; Rev. 8
- LOP-DG-09M; Unit 2 A Diesel Generator Cooling System Mechanical Checklist; Rev. 11
- LOP-DO-06M Unit 2A Diesel Generator Fuel Oil Transfer System Mechanical Checklist; Rev. 10
- LOP-HP-01E; Unit 1 High Pressure Core Spray Electrical Checklist; Rev. 10
- LOP-HP-01M; Unit 1 High Pressure Core Spray Mechanical Checklist; Rev. 17
- LOP-RH-02E; Unit 1 Residual Heat Removal System Electrical Checklist; Rev. 18
- LOP-RHWS-1AM; Unit 1 A RHR Service Water System Mechanical Checklist; Rev. 2
- LOP-VC-01E; Unit 0 Control Room HVAC System Electrical Checklist; 9/29/2011
- LOP-VC-01M; Unit 0 Control Room HVAC System Mechanical Checklist; 9/29/2011

## 1R05 Fire Protection

### Procedures:

- EN-MW-501; Chemical Control; Rev. 7
- OP-AA-201-009; Control of Transient Combustible Material; Rev. 11

### Action (Issue) Reports:

- 1269460; Fire Zone 1-38 had Trouble and Detectors Did Not Work
- 1239992; FP FASA Objective 7 Various Plant Storage Cages Material Con

### Figures and Drawings:

- 9.5-1; Fire Protection System EL 710'-6"; Rev. 3
- 9.5-1; UFSAR Fire Protection System EL 768'-0"; Rev. 3

### Working Documents:

- AT 1239992-02; Identify Cages to be Cleaned and their Owners; 9/27/11
- WO 1141758-01; Hydro Test All Fire Hoses per TRM 3.7.M.A.1 or Replace Hoses; 3/13/2009
- WO 1239992-04; Assignment Detail: FP FASA Objective 7 Various Plant Storage Cages Material Con
- WO 1386221-01; Perform U-1 Fire Zone Ionization Smoke Det Chnl Functional test; 6/10/2011

### Miscellaneous:

- Pre-Fire Plan, Unit 1 – Elevation 761'-0", Fire Zone 2E; Rev. 0
- LSCS-FPR H.3.3.8; Unit 2 – Elevation 710 feet – 6 inches – Fire Zone 3G
- LSCS-FPR H.3.3.10; Unit 2 HPCS Cubicle – Elevation 694 feet – 6 inches – Fire Zone 3H2
- LSCS-FPR H.3-2; Rev. 4
- LSCS-FPR; Table H.3-2; Combustible Loading and Extinguishing Capability; Rev. 4
- LSCS-FPR; Table H.4-13; Safe Shutdown Equipment in Fire Zone 2E-1; Rev. 3
- LSCS-FPR; Table H.4-14; Safe Shutdown Equipment in Fire Zone 2E-2; Rev. 3
- Fig. 9.5-1; UFSAR Fire Protection System; Rev. 3
- LSCS-FPR; H.4.2; Fire Zones 2D, 3D, 2E, 3E; Rev. 4

## 1R06 Flooding

### Figures and Drawings:

- 1E-1-3685; Cable Routing Outdoor Area; Rev. Y

### Miscellaneous:

- NARS Form, Alert Drill and Exercise Log; 8/10/2011
- Unit 1 Underground Cable Listings; 9/1/2011
- Unit 2 Underground Cable Listings; 9/1/2011
- Units 1 and 2 Medium Voltage Cable Listings from EC 380309; 9/1/2011

## 1R11 Licensed Operator Requalification Program

### Miscellaneous:

- Simulator Training Scenario 3rd Quarter 2011

## 1R12 Maintenance Effectiveness

### Procedures:

- ER-AA-310; Implementation of the Maintenance Rule; Rev. 8
- ER-AA-310-1004; Maintenance Rule – Performance Monitoring; Rev. 8
- ER-AA-310-1005; Maintenance Rule – Dispositioning between (a) (1) and (a) (2); Rev. 5
- LOP-DC-01; Battery Charger Startup and Shutdown; Rev. 38

### Action (Issue) Reports:

- 1019471; Root Cause Report RCR to Investigate Summary of Recent SBLC Relief Valve Issues; 3/18/2010
- 1178053; 2E22-F035 Relief Valve Failed As-Found Set Pressure Test; 2/21/2011
- 1250746; DC-03 Maintenance Rule Performance Criteria Exceeded
- 1177478; 250 VDC Battery Charger Not Responding to Voltage Changes
- 1248820; 2DC36E 24V Charger Field Observations
- 481099; Replace Float/Equalize Toggle Switch
- 481242; Replace Float/Equalize Toggle Switch
- 1240042; Maintenance Rule Evaluation Extension
- 1230684; 2A 24/48 VDC Charger Voltage Fluctuates
- 1168532; 2DC36E-CB2 Found Tripped
- 959399; 24/48 DC Charger Output Current/Voltage Erratic
- 481231; Replace Float/Equalize Toggle Switch
- 1250746; DC-03 Maintenance Rule Performance Criteria Exceeded
- 195947; 1E22-F035 Failed Bench Test; 1/17/2004
- 1029310; 1E22-F035 Relief Valve Failed ISI Testing; 2/12/2010

### Figures and Drawings:

- M-95; P&ID High Pressure Core Spray (HPCS); Rev. AP

### Calculations:

- HP-11; Resetting Valve E22-F035 (Sargent & Lundy); 4/12/1982

### Working Documents:

- WO 1029310-02; Review Findings/Recommendations from RCR 1019471-14 (on SBLC) Relief Valve Failures) and Initiate Actions for HPCS System Relief Valves as Appropriate; 4/1/2010
- WO 1131495-01; Inspect Unit 2 System A 24 Volt Battery Chargers; 2/1/2010
- WO 1451438-01; 2DC36E Troubleshooting; 9/20/2011
- WO 915297-01; Replace Float / Equalize Toggle Switch
- WO 915302-01; Replace Float / Equalize Toggle Switch; 5/7/2008
- WO 924781-01; EM Perform Sys 'A' 24 V Batt Charger Inspections; 9/5/2007

### Miscellaneous:

- 1(2)E22-F035 HPCS Relief Valve History; 1998 – 2011
- 2005-23; OPEX SME Review of NLI Tech Bulletin 47056-01, "PCP Float / Equalize Switch"
- ASME OM CODE OMN-2; Thermal Relief Valve Code, Appendix I; 1995
- ASME OM CODE-2001; Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants, Mandatory Appendix I; 2001
- Determination AR 1230684; Unit 2 DC / DC-02, 24/48 Battery Charger; 9/6/2011
- EC 353154; ASME Code Case OMN-2 Applicability Evaluation; 1/11/2005
- LSCS-UFSAR 6.3.2.2.12; Relief Valves and Vents; Rev. 13

- LSCS-UFSAR Table 6.3.-2; Significant Input variables Used in the GE Loss-of-Coolant Accident Analyses; Rev. 16
- Maintenance Rule Evaluation: DC System; 8/2011
- PIF L1998-03863; Screening Report: Rework: 1E22-F035 Relief Valve Failed Lift Test; 9/30/2011
- PMRQ 76316-01; Inspect Unit 2 System A 24 Volt Battery Chargers
- PMRQ 76317-01; Inspect Unit 2 System B 24 Volt Battery Chargers; 7/15/2012
- Special Log for 2DC32E 24/48 Panel 2A (2DC39E) Battery Terminal Voltages; 6/20/2011 – 9/29/2011
- System Health Report: LAS Common Unit; DC/RH1 – Relay House System 1; 4/1/2011 – 6/30-2011
- System Health Report: LAS Common Unit; DC/RH2; 4/1/2011 – 6/30-2011
- System Health Report: LAS Unit 1; DC/24/48 – 24/48 VDC; 4/1/2011 – 6/30-2011
- System Health Report: LAS Unit 1; DC/D1; 4/1/2011 – 6/30-2011
- System Health Report: LAS Unit 1; DC/D2; 4/1/2011 – 6/30-2011
- System Health Report: LAS Unit 1; DC/D3; 4/1/2011 – 6/30-2011
- System Health Report: LAS Unit 2; DC/24/48 – 24/48/VDC; 4/1/2011 – 6/30-2011
- System Health Report: LAS Unit 2; DC/250 – 250 VDC; 4/1/2011 – 6/30-2011
- System Health Report: LAS Unit 2; DC/D1; 4/1/2011 – 6/30-2011
- System Health Report: LAS Unit 2; DC/D2; 4/1/2011 – 6/30-2011
- System Health Report: LAS Unit 2; DC/D3; 4/1/2011 – 6/30-2011

#### 1R13 Maintenance Risk Assessments and Emergent Work Control

##### Procedures:

- CY-AB-120-1100; Reactor Water Hydrogen Water Chemistry, Noble Chem and Zinc Injection; Rev. 8
- CY-LA-120-500; Online Noble Metal Chemical Injection for Unit 1; Rev. 0
- ER-AA-310; Implementation of the Maintenance Rule; Rev. 8
- LIP-RI-503; Unit 1 RCIC Pump Suction Low Pressure Turbine Trip Calibration; Rev. 11
- LIP-RI-504; Unit 1 RCIC Turbine Exhaust High Pressure Turbine Trip and Alarm Calibration; Rev. 9
- LIP-RI-604; Unit 2 RCIC Turbine Exhaust High Pressure Turbine Trip and Alarm Calibration; Rev. 10
- LIS-HP-105; Unit 1 High Pressure Core Spray Minimum Flow Bypass Calibration; Rev. 25
- LIS-HP-205; Unit 2 High Pressure Core Spray Minimum Flow Bypass Calibration; Rev. 23
- LIS-RI-116; Unit 1 Cycled Condensate Storage Tank Low Level RCIC Suction Calibration; Rev. 2
- OP-AA-108-117; Protected Equipment Program; Rev. 2
- OP-LA-1010-111-1002; LaSalle Operations Philosophy Handbook; Rev. 35
- WC-AA-101; Online Work Control Process; Rev. 18
- WC-AA-101; On- Line Work Control Process; Rev. 18
- WC-AA-101-1004; Project Summary Supplement; Rev. 4

##### Action (Issue) Reports:

- 1149465; Prepare Work Package to Install/Inject OLNC on U-1
- 1208170; 24A Heater Emergency Drain Valve Failed
- 1220515; 24A Emerg Controller Potential Latent Condition
- 1237233; CRD Flow Controller Low
- 1241967; RM – Unit 2 Unexpected Loss of CRD System Flow
- 1243107; U1 Noble Metals RPSM Panel trip

- 1243373; Feed Breaker to 0VD01C at 135X-2 Found Tripped
- 1244368; 0VD01C Monitoring Plan
- 1249948; CCP – Duplicate EPNS Located on Plant Equipment
- 1253859; Heater Transient on U2
- 1253880; Incomplete Heater Isolation – 2HD MSDCV-HA
- 1253896; 2A RR FCV RVDT Failure
- 1254076; Water Leaking on North Side of 24A Heater in U2 Heater Bay
- 1254963; Moore 535 Controller EACE
- 1259991; Unexpected Increase in U1 MMS Flow for Unit 1
- 1261821; RLC 115 Circuit “G” Trips Its Feed Breaker
- 1261854; Possible Relay Failure
- 198745; 1B DG Fuel Storage Tank Room Exhaust Fan Bkr Trips
- 323545; Found Breaker Set on 3 when Passport Shows 2
- 333147; MCC 2AP72E-B4 Magnetic Trip Setting Incorrect
- 333149; MCC 2AP81E-B2 Thermal Trip Setting Incorrect
- 333155; MCC 2AP81E-B4 Thermal Trip Setting Incorrect
- 333171; Validation of MCC Passport Breaker Settings
- 481099; Replace Float/Equalize Toggle Switch

#### Figures and Drawings:

- M-57; P&ID Feedwater & Zinc; Rev. R
- M-75; P&ID Clean Condensate Storage; Rev. AD

#### Working Documents:

- EC 371342-002; 24A FW Heater Normal and Emergency Level Controller Upgrade to a STS 535 Digital Process Controller; 3/14/2011
- WO 1458018-02; 0VD01C Monitoring Plan; 7/29/2011
- WO 665336-02; Increase Setting of Breaker @ 1AP79E-5F from (Lo, to (1))
- WO 811394-01; Perform LES-GM-109 for 0VD01C @ MCC 235X-2/B4 (2AP72E); 8/16/2007
- WO 920184-01; Perform LES-GM-109 for 0VD01C @ MCC 135X-2/B4 (1AP72E); 8/15/2007

#### Licensee Event Reports:

- LER 2006-01-00; Calvert Cliffs Unit 1: 1A Diesel Generator Feeder Breaker Tripped Due to Low Design Setpoint; 5/23/2006

#### Miscellaneous:

- Letter from Andrew Nack, ATC Nuclear to Tim Sandness, Exelon Nuclear re: 24A Emergency Controller not Displaying Change of Level; undated
- LaSalle Training Document, Reactor Protection System, RPS Logic – Turbine Stop Valves and MSIVs; undated
- LaSalle Training Document, Main Turbine and Auxiliary System
- NARS; DRILL/EXERCISE: Nuclear Accident Reporting System Alert Forms; 8/2/11
- Operators Log (0VD01C search); 7/24/2011 – 8/16/2011
- LaSalle Operations Log (24A search); 8/22/2011
- LaSalle Operations Log; 8/22/2011 – 8/23/2011
- LaSalle Operations Log; 9/11/2011- 9/12/2011
- LaSalle Plant Conditions Report; 8/23/2011
- LaSalle Operations Log; 8/29/2011
- Plant Status; LaSalle Plant Conditions Report; 8/30/2011
- Proj LAS-57797; Letter from Lance Walls to Mark Dagraedt re: Failure Analysis of a Circuit Breaker; 7/28/2011

- Proj LAS-60114/WR 13057; Tech Services Work Request; 9/12/2011
- Remain in Service Equipment List; 8/29/2011, 8/30/2011
- WEC Guide; 8/29/2011, 8/30/2011

### 1R15 Operability Evaluations

#### Procedures:

- CC-LA-201-1001; Plant Barrier Control Program Implementation; Rev. 3
- OP-AA-108-101; Control of Equipment and System Status; Rev. 8
- OP-AA-108-115; Operability Determinations (CM-1); Rev. 10
- LOR-1H13-P601-E204; Div II Reactor Building Ventilation Radiation High High; Rev. 3
- LOR-1N62-P600-B401; Reactor Building Ventilation Exhaust Radiation High; 6/5/2008

#### Action (Issue) Reports:

- 1241280; Safety Issue Identified with Plant and Shop Roll-up Doors
- 1241371; Safety Concern. Install Gag to Prevent Injury
- 1245184; EPU Sensitivity Study Results Concerning PA
- 1264227; 2E51-N009B Out of Cal Trend Code B3
- 1264798; 1C VR Rad Monitor

#### Figures and Drawings:

- 1E-2-4226AC; Schematic Diagram Reactor Core Isolation Cooling System "RI" (E51); Rev. AA
- 1E-2-4617AA; Internal/External Wiring Diagram reactor core Isolation Cooling Relay "VB" 2H13-P621; Rev. AY

#### Working Documents:

- 11-08 Rev. 0; Unit Common Standing Order: Potential Non Conservative Tech Spec Action; 7/28/2011
- EC 383652; Determine low bulk average drywell temperature not exceeded more than 5%; Rev. 0
- WR 374266; Work Request: Safety Concern. Install Gag to Prevent Injury

#### Operability Evaluations:

- OE 11-002; Operability Evaluation: Drywell Temp Used as Input for the Containment Analysis; (AR 1245184); Rev. 0

#### Miscellaneous:

- Fig. 3.11-1; UFSAR Harsh Environment Zones; Rev. 15
- LaSalle Station Operator Log Entries Report; 9/16/2011 – 9/19/2011
- LaSalle Station Operator Log Entries Report; 9/21/2011
- LSCS-UFSAR 3.11-1; Environmental Design of Mechanical and Electrical Equipment; Rev. 14
- Operations Dept Concerns, Prompt Investigations and PG 130 Systems; 9/19/2011

### 1R19 Post-Maintenance Testing

#### Procedures:

- LOP-RD-01; Filling, Venting, and Startup of the Control Rod Drive System; Rev. 30
- LOS-DG-Q3; 1B (2B) Diesel Generator Auxiliaries Inservice Test; Rev. 56
- LOS-DG-SR6; Division 2 Cooling Water System Test; Rev. 10
- LOS-VC-M1; Control Room Emergency Makeup Unit Operability Test
- LOS-VC-M1; Control room Emergency Makeup Unit Operability Test; Rev. 26
- MA-AA-723-325; Molded Case Circuit Breaker Testing; Rev. 9

- MA-AA-733-1001; Guidance for Check Valve General Visual Inspection; Rev. 7
- OP-AA-108-106; Equipment Return to Service; Rev.4

Action (Issue) Reports:

- 1112851; Klockner Moeller Breaker Upgrade
- 1165174; Increased Leakage on 1A FP Cooling Pump Outboard Seal
- 1198041; Updated Leakage Rate for CRD PCV
- 1208929; RM- Walkdown Identified Degrading Trend on 1C11-F003 Leakage
- 1243373; Feed Breaker to 0VD01C at 135X-2 Found Tripped
- 1243400; Turbine Supervisory Instrument Panel Trouble Alarm
- 1244368; 0VD01C Monitoring Plan
- 1249571 1B DG Air Dryer Did Not Depressurize Possible Stuck Solenoid
- 1253310; Pump Rotating Element Appears to be Binding; 8/19/2011
- 1262217; A VE Return Fan Isolation Damper Failed to Open
- 1262269; Work Order 1432133-01 and 02 Require Rework
- 1269257; 1C11-F003 Plug/Stem Assemblies Nor Like for Like
- 333147; MCC 2AP72E-B4 Magnetic Trip Setting Incorrect;
- 872668; 1FC01PA – 10 DPM Outboard Pump Seal Leak Drawings:
- M-83; P & ID Diesel Generator Auxiliary System; Rev. AT
- M-100; P&ID Control Rod Drive Hydraulic Piping; Rev. AT

Working Documents:

- WO 1438127-01; LOS-DG-Q3 1B DG B A/C Check Valve Att A4
- WO 1311794-01; Work Package: Disassemble, Clean, Inspect Starting Air Check Valve in 1B DG Room 710 feet
- WO 1127875-01; Refurb 1E12C300D BKR & SWGR 126Y/402C (1AP22E); 7/10/2008
- WO 1279663-01; Perform LES-GM-109 for 1VY03C @ MCC 136Y-1/F5 (1AP82E)
- WO 1341615-01; Chemical Cleaning of Waterside of 1VY03A Cooler, MM Cooler Chemical Cleaning; 7/1/2011
- WO 1341615-02; Chemical Cleaning of Waterside of 1VY03A Cooler, OPS LOS-DG-Sr6 Att E.1 thru E.1.6 Flow Balance; 9/13/2011
- WO 1316248-01; Disassemble, Inspect Valve Seats Due to Suspected Leak at 761' B & 10 Unit 1 Reactor Building
- WO 1316248-05; EM Detrm/Retrm Remv/Reinstl MOV 1C11-F003 for Valvework
- WO 1207021; Completion Status List for 1FC01PA -10 DPM Outboard Pump Seal Leak; 9/12/2011
- 1207021-01; 1FC01PA -10 DPM Outboard Pump Seal Leak MM Outboard Seal Leaking Water Replace Mechanical Seal; 9/18/2011
- 1207021-02; 1FC01PA -10 DPM Outboard Pump Seal Leak CMO PMT: Vibration Testing of Pump; 9/26/2011
- 1207021-03; 1FC01PA -10 DPM Outboard Pump Seal Leak OP PMT: 1FC01PA Pump Performance & No Leaks at NOP & Temp; 9/18/2011

Miscellaneous:

- Active Degraded Equipment List, Unit 0, LCOTR #: 00-VC-11-12-0A VC-VE; 9/12/2011
- LSCS-UFSAR 4.6 Functional Design of Reactivity Control Systems; Rev. 13
- Operator Log; 7/24/2011 – 7/25/2011
- WEC Guide; Integration of New Operators/Radworker Practices/HU/THU/Core Management; 8/11/2011
- LaSalle Work Week 201138; 9/12/2011 – 9/18/2011

## 1R22 Surveillance Testing

### Procedures:

- LOS-AA-W1; Technical Specifications Weekly Surveillances; Rev. 66
- LOS-DG-109; Unit 1 Integrated Division I Response Time Surveillance; Rev. 11
- LOS-DG-M1; 0 Diesel Generator Operability Test; Rev. 73
- LOS-DG-Q3; 1B (2B) Diesel Generator Auxiliaries Inservice Test; Rev. 56

### Action (Issue) Reports:

- 1129280; NOS ID: Adverse Trend in Operating Plant Equipment
- 1237911; 2B DG CWP Strainer Stopped Rotating While in 'Hand'
- 1244236; 2B DG CLG Wtr PP Strnr Troubleshooting Findings
- 1246994; 2B DG CWP Strainer Gear Motor Amp RDGS from WO 1412202-06

### Working Documents:

- U2 2B D/G Cooling Water Pump Test, LOS-DG-Q3; Tech Spec Surveillance Unit 2; 8/12/11
- WO 1421729-01; Op LOS-DG-MI; 0 Diesel Generator Fast Start ATT 0-Fast; 9/19/2011

### Miscellaneous:

- LaSalle Operators Log; 8/8/2011- 8/12/2011

## 1EP6 Drill Evaluation

### Miscellaneous:

- LaSalle EP Drill Scenario; 8/3/2011

## 2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

### Procedures:

- CY-AA-170-300; Offsite Dose Calculation Manual Administration; Rev. 2
- CY-AA-170-3100; Offsite Dose Calculation Manual Revs; Rev. 3
- CY-LA-110-202; 1(2) PL14J Reactor Panel Sampling; Rev. 4
- CY-LA-170-2003; Onsite Groundwater and Storm Sewer Monitoring; Rev. 5
- CY-LA-170-201; Station Vent Stack Airborne Tritiated Water Sampling; Rev. 2
- CY-LA-170-3000; Airborne Releases – 10 CFR Part 50, Appendix I Design Objectives; Rev. 0
- CY-LA-170-3002; Total Dose Determination at LaSalle Generating Station; Rev. 1
- CY-LA-170-3003; OpenEMS Effluent Management system Implementation, DRAFT; Rev. 0
- LAP-1800-4; LaSalle County Station Inoperable Monitor Surveillance Check Lists for; 2010 and 2011
- LCP-310-11; Wide Range Gas Monitor Abnormal Noble Gas, Iodine, and Particulate Sampling; January 7, 2010
- LCP-310-14; Sampling and Composite Cooling Pond Makeup and Blowdown Samples; Rev. 10
- LCP-310-52; Wide Range Gas Monitor Normal Noble Gas, Iodine and Particulate Sampling; Rev. 6, 2010
- LCP-410-1; Preparation of Samples for Gamma Ray Spectrometer Measurements; Rev. 12
- LRP-5820-33; Station Vent Stack and Standby Gas Treatment Stack Wide Range Gas Monitor Effluent Release Rate Alarm Setpoint Set Points; Rev. 2
- LRP-5820-34; Off-Gas Post Treatment Monitor Alarm and Trip Setpoints; Rev. 10

Action (Issue) Reports:

- 1067397; Radiological Environmental Monitoring Program Review of 2010 Thermoluminescent Dosimeter Results; 5/10/2010
- 1130312; Well TW-LS-119S, Buried By WW Line Excavation Spoils; 10/25/2010
- 1137871; Fourth Quarter Illinois Environmental Protection Agency Joint Radionuclide Inspection; 11/8/2010
- 1209121; Low Levels of Tritium detected in Unit 2 Primary Containment Component Cooling Water; 4/28/2011
- 1237534; Update to Tritium Plume Information from Information from Unit 1 CY Leak; 7/7/2011
- 1086216; 1CY01T Tritium Leakage Root Cause Investigation; 8/5/2010
- 1036260; Air sampler L-03 Low Timer Reading; 2/11/2010
- 1059830; Station Vent Stack Release Rate; 4/22/2010
- 1113033; Tritium Detected in TW-LS-118S; 9/14/2010
- 1117546; Low-Level Tritium Detected in Storm Drain; 9/24/2010
- 1215604; Increasing Trend on MW-LS-104S; 5/13/2011

Working Documents:

- Updated Final Safety Analysis Report Section 11; Rev. 13
- WO 1159091; Station Vent Effluent Sampler and Stack Flow Rate Monitor Calibration; 5/26/2010

Miscellaneous:

- Annual 2010 Quality Assurance Report; Teledyne Brown Environmental Services; 5/24/2011
- Focused Area Self-Assessment; Radioactive Gaseous and Liquid Effluent Treatment; June 2, 2011
- LaSalle County Station 2010 Annual Radioactive Effluent Release Report; 4/26/2011
- LaSalle County Station 2009 Annual Radioactive Effluent Release Report; 4/28/2010
- LaSalle Unit 1 CY Tank Leak; 10 CFR 50.75 File Entry; June 2010
- Monthly Report on Meteorological Monitoring Program at the LaSalle County Nuclear Station; June, 2010 to July 2011
- MSPI and WANO Reporting for Emergency AC Power; Monthly Reports for 7/2010 – 3/2011
- PORC 11-016; Off-Site Dose Calculation Manual, Rev. 3; 6/6/2011

2RS7 Radiological Environmental Monitoring Program (71124.07)

Action (Issue) Reports:

- 1089770; Radiological Environmental Monitoring L-10 Tornado Damage and Low Timer; 7/12/2010
- 1089774; Radiological Environmental Monitoring L-10 Low Timer Reading; 7/12/2010
- 1097372; Radiological Environmental Monitoring Air Sampler L-01 Low Timer Reading; 7/8/2011
- 1137418; Radiological Environmental Monitoring Program Cs137 Detected in Sediment Sample L-21 October 7, 2010 Illinois River; 11/8/2010
- 1153781; Low Level Tritium Indicated at CY Line Excavation Site; 12/16/2010

Miscellaneous:

- Focused Area Self-Assessment; Radiological Environmental Monitoring Program (REMP); 6/2/2011
- LaSalle County Station 2010 Annual Radiological Environmental Operating Report; 5/12/2011

#### 4OA1 Performance Indicator Verification

##### Action (Issue) Reports:

- 1187434; 2B DG Cylinder #1 Kiene Test Valve Loose During LOS-DG-M#; 3/14/2011

##### Working Documents:

- LOP-DG-02; Diesel Generator Start and Run Logs, Attachment E; various dates 8/2010 thru 3/2011

##### Miscellaneous:

- MSPI and WANO Reporting for Emergency AC Power; Monthly Reports for 7/2010 – 3/2011

#### 4OA2 Identification and Resolution of Problems

##### Procedures:

- OP-AA-102-103; Operator Work-Around Program; Rev. 3

##### Action (Issue) Reports:

- 1025852; NE Corner Grating Covered 740' RB Unit 1
- 1029385; Fire Door 402 Broken
- 1069542; Broken Door Knob to the U2 Aux Electrical Equipment Room
- 1077299; VQ Liquid Nitrogen Storage Tank Pressure High
- 1092990; Handle on Door 302 is Loose and Falling Off
- 1101063; Dual Unit LCO Entered Due to High Lake Temperature
- 1103305; Received Momentary 1H13-P603-A511 RWLCS Trouble Alarm
- 1104150; Floor Drains on 815 Aux Building not Draining
- 1105554; Door #457 Latching Mechanism Does Not Work
- 1106232; Door 395 Seal Damaged
- 1112124; U-1 CRD FCV Became Erratic while in Auto
- 1112526; Door 20 Bottom Middle Pin Needs Help to Open
- 1119881; Fire Door 58 Found Ajar
- 1135494; Seal on Frame Coming Off at Bottom of Door #694
- 1136334; NOS ID: Operator Burden Assessment Missing Inputs
- 1136375; Operator Workarounds WA 378, 379 Removed Per OP-AA-102-103
- 1146236; Calculation Inaccuracies Determined During MUR/EPU Reviews
- 1170777; Door Mechanism Not Working Properly
- 1173113; Leak Identified on 1E51-F076
- 1176089; OISDR302 Security – Knob Fell Off of Door 302
- 1178710; Small Cracks Found in Door #234
- 1199227; 2PL19J Annun. Didn't Make Audible Sound when Alarm Came Up
- 1207377; Door 514 Not Latching Properly
- 1238150; Applicability of Braidwood HELB Issue to LaSalle
- 1256861; Dr. 877 Handle Came Off
- 1260623; Low Profile Transporter CA Review
- 1260885; RM-OPRM Bypass Switch Replacements – EPN 2C51B-S750A
- 1261066; 1B DG Storage Tank Low Level Alarm in MCR
- 1261103; Door 395 Seal Damaged
- 1261110; Door 402 Seal Damaged
- 1266730; Door 259 Rubber Gasket Hanging Loose

Issue Reports Resulting from NRC/IEMA Inspection:

- 1010671; U1 MMS Degraded Automatic Function (Noble Metals)
- 1032360; East VQ Nitrogen Tank Pressure Control Valve Not Working
- 1184518; 2WS035 TLO TCV Not Controlling Temperature
- 1191836; 2G33-F034 Leaks by
- 1200581; Operations Crew 1 Clock Reset
- 1235063; NRC Id: Reporting Requirement Omission
- 1236293; PCR for LOP-WX-11 RWCU Phase Sep Decant
- 1237382; NRC Questions about Procedure Change Process
- 1239009 NRC Id'd wrong attachment number referred in MA-AA-716-004
- 1244148; RETS 6 Untimely Implementation of Open EMS Software T&RM
- 1247892; Security – NRC Observation on Procedure vs Implementation
- 1251982; Results of NRC TI 2515/184 Inspection of SAMGS
- 1253228; Watertight Door Designation Error on UFSAR Figure 9.5-1
- 1256953; RM-OPRM Bypass Switch Replacements
- 1257379; NRC Identified Issue with 0VD01YA Manual Bypass Blade
- 1265626; NRC Identified Operator Challenge Inappropriately Closed
- 1269339; NRC Identified Issue – Improperly Stored Tool
- 1269373 IDNS Inspector Concern
- 1270035; RPA Exit Through IPM with Gloves Attached to Belt
- 1270580; NRC Identified Items Not Stored
- 1270581; NRC Resident Requested Information Regarding Fire Zone 2E
- 953796; Entered LOA-CW-201 Following Trip of A and C CW Pumps

Work Orders:

- 1010671-02; Screen for Operator Workaround; 4/5/2010
- 1409247-01; Leak Identified on 1E51-F076

Working Documents:

- L-003528; Design Analysis (Major Revision) S&L Task Report 17 – Cooling Lake EC/ECR 375883, 380062; Rev. 0
- L-003538; Design Analysis (Major Revision) S&L Task Report 41 – Ultimate Heat Sink (UHS) EC/ECR 375883, 380062; Rev. 0
- WO 1311373 Task Completion Processing Report: East VQ Nitrogen Tank Pressure Control Valve Not Working; 10/3/2010

Licensee Event Reports:

- RA11-015; LER 2011-002-00; 4/1/2011

Miscellaneous:

- AR 1173113; Equipment Apparent Cause Evaluation: Reactor Pressure Boundary leakage Identified on 1E51-F076
- Operator Work Arouns List WA# 326-396; undated
- Operator Work Around Board Meeting Minutes; 6/14/2011
- Operator Work Around Board Meeting Minutes for Third Quarter 2011; 9/16/2011
- Summary of Open work Arouns and Challenges; Current List; undated
- Summary of Open work Arouns and Challenges; Archive List; undated
- SOS Concerns/Adverse Condition Monitoring Issues; 9/16/2011

#### 4OA3 Followup of Events and Notices of Enforcement Discretion

##### Action (Issue) Reports:

- 1169946; LaSalle Unit 1 Scram 2-1-11; 2/2/2011
- 1169954; 1A CW Pump Tripped During U-1 MPT Trip and Scram; 2/2/2011
- 1171486; U1 VR Trip During 2-1-11 Scram; 2/5/2011
- 1182255; Loss of Secondary Containment During Fuel Movement
- 1195987; Secondary Containment Pressure Anomaly
- 1205930; OIO Benchmarking – Monticello Nuclear Plant
- 1209503; Door 125 Replace Magnets/Switch

##### Licensee Event Reports:

- RA11-034; LER 2011-003-00; 4/29/2011

##### Miscellaneous:

- ACE 1140568-02; Inadequate Analysis for Mounting of the SBLC Test Tank
- AR 1195987; Apparent Cause Evaluation: Loss of Secondary Containment during Fuel Movement
- LER 2011-001-00; Automatic Reactor Scram Due to Main Power Transformer “C” Phase Electrical Fault; 3/25/2011
- Operator Log for 3/2/2011; 9:30 a.m. – 10:15 a.m.
- Root Cause Investigation Report; LaSalle Unit 1 Scram 2-1-11; 3/10/11
- WO 1327055; Work Task Outline: Place / Remove Operating Signs and Barriers Pre-RF Outage
- WO 1433980; Work Task Outline: Door 125 Replace Magnets/Switch
- WO 1437794; Work Task Outline: Replace / Remove Operating Signs and Barriers Pre-RF Outage

## LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
AR	Action Report (Issue Report)
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CDBI	Component Design Bases Inspection
CFR	Code of Federal Regulations
CRD	Control Rod Drive
CY	Cycled Condensate
DC	Direct Current
DG	Diesel Generator
EC	Engineering Change
HELB	High Energy Line Break
HPCS	High Pressure Core Spray
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
kV	Kilovolt
LER	Licensee Event Report
MPT	Main Power Transformer
MSPI	Mitigating Systems Performance Index
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OWA	Operator Workaround
PARS	Publicly Available Records System
PI	Performance Indicator
PMT	Post-Maintenance Testing
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RP	Radiation Protection
SBGT	Standby Gas Treatment
SBLC	Standby Liquid Control
SDP	Significance Determination Process
SSC	Structure, System, and Component
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
UHS	Ultimate Heat Sink
URI	Unresolved Item
V	Volt
Vdc	Volts Direct Current
WO	Work Order

M. Pacilio

-2-

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/ By N. Shah Acting For/**

Kenneth Riemer, Chief  
Branch 2  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000373/2011004; 05000374/2011004  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

DISTRIBUTION:  
See next page

DOCUMENT NAME: G:\DRPIII\1-Secy\1-Work In Progress\LAS 2011 004.docx  
 Publicly Available     Non-Publicly Available     Sensitive     Non-Sensitive  
To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII	RIII	RIII	RIII
NAME	NShah for MZiolkowski	NShah for KRiemer:cs		
DATE	10/31/11	10/31/11		

**OFFICIAL RECORD COPY**

Letter to M. Pacilio from K. Riemer dated October 31, 2011

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2,  
NRC INTEGRATED INSPECTION REPORT  
05000373/2011004; 05000374/2011004

DISTRIBUTION:

Amy Snyder  
RidsNrrDorLpl3-2 Resource  
RidsNrrPMLaSalle  
RidsNrrDirIrib Resource  
Cynthia Pederson  
Jennifer Uhle  
Steven Orth  
Jared Heck  
Allan Barker  
Carole Ariano  
Linda Linn  
DRPIII  
DRSIII  
Patricia Buckley  
Tammy Tomczak  
[ROPreports Resource](#)