



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
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LISLE, IL 60532-4352

May 2, 2012

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 05000373/2012002;
05000374/2012002

Dear Mr. Pacilio:

On March 31, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your LaSalle County Station, Units 1 and 2. The enclosed report documents the inspection results which were discussed on April 4, 2012, with the Site Vice President, Mr. D. Rhoades, 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.

One NRC-identified finding of very low safety significance (Green) was identified during this inspection.

The finding was determined to involve a violation of NRC requirements. The NRC is treating this violation as a non-cited violation (NCV), consistent with Section 2.3.2 of the Enforcement Policy.

If you contest 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 Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington DC 20555-0001; and the NRC Resident Inspector at the LaSalle County Station.

If you disagree with the cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at LaSalle County Station.

M. Pacilio

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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 Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Michael Kunowski, Chief
Branch 5
Division of Reactor Projects

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

Enclosure: Inspection Report 05000373/2012002; 05000374/2012002
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: 05000373/2012002; 05000374/2012002

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: Marseilles, IL

Dates: January 1, 2012 – March 31, 2012

Inspectors: R. Ruiz, Senior Resident Inspector
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Approved by: Michael Kunowski, Chief
Branch 5
Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

IR 05000373/2012002, 05000374/2012002; 01/01/2012 – 03/31/2012; LaSalle County Station, Units 1 & 2; Problem Identification and Resolution.

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. This 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: Barrier Integrity

- Green. A finding of very low safety significance and associated NCV of Title 10 of the Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's failure to implement appropriate proceduralized compensatory measures associated with LaSalle Operability Evaluation (OpEval) 11-002, "Drywell Temp Used as Input for the Containment Analysis." Specifically, non-conservative temperature limits were established for the control room shiftly surveillance procedure and written instructions were not included for drywell penetration local leak rate test parameters to ensure the adequate performance of the tests. Upon notification by the inspectors, the licensee promptly entered the issues into the corrective action program (CAP) for evaluation and revised the surveillance procedure and test instructions.

The finding was determined to be more than minor because it was associated with the Barrier Integrity Cornerstone attribute of procedure quality and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Additionally, if left uncorrected, the finding had the potential to lead to a more significant safety concern. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Containment Barrier, dated January 10, 2008. The finding was determined to be of very low safety significance because all questions in the Containment Barrier column were answered "No." This finding has a cross-cutting aspect in the area of problem identification and resolution (PI&R) CAP, because the licensee did not take appropriate corrective actions to address safety issues in a timely manner, commensurate with their safety significance and complexity. Specifically, failing to appropriately execute corrective actions that were established in an OpEval resulted in the failure to establish appropriate instructions and procedures (P.1(d)). (Section 4OA2)

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 January 18, 2012, power was reduced to approximately 68 percent due to the failure of the heater drain tank normal level controller. Following the controller repairs, the unit was returned to full power the next day. On February 12, the operators began unit shutdown for refueling outage (RFO) L1R14. Following completion of the outage, the unit was restarted and synchronized to the grid on March 7. Full power was achieved on March 9. Lastly, on March 12, power was reduced to 80 percent for a control rod pattern adjustment. Unit 1 was restored to full power on March 13, where it remained for the rest of the inspection period.

Unit 2

The unit began the inspection period operating at full power. On March 24, 2012, power was reduced to approximately 60 percent for control rod sequence exchange, scram time testing, and channel distortion testing. Unit 2 was restored to full power on March 26, 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 – Winter Storm Warning

a. Inspection Scope

On February 22, 2012, a winter weather advisory was issued for a winter storm warning. The inspectors observed the licensee's preparations and planning for the significant winter weather potential. The inspectors reviewed licensee procedures and discussed potential compensatory measures with control room personnel. The inspectors focused on plant management's actions for implementing the station's procedures for ensuring adequate personnel for safe plant operation and emergency response would be available. The inspectors conducted a site walkdown including walkdowns of various plant structures and systems to check for maintenance or other apparent deficiencies that could affect system operations during the predicted significant weather. The inspectors also reviewed CAP items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their CAP in accordance with station CAP procedures. Documents reviewed are listed in the Attachment to this report.

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 1 Div. II core standby cooling system (CSCS);
- Unit 2 Div. II CSCS; and
- Units 1 and 2 common diesel generator (DG) with 1A DG and safety bus 142Y out-of-service.

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 Semi-Annual Complete System Walkdown

a. Inspection Scope

On March 30, 2012, the inspectors performed a complete system alignment inspection of Units 1 and 2 CSCS equipment cooling ventilation 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 lineups, 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 auxiliary electrical equipment room, fire zone 4E1;
- Unit 1 Div. I residual heat removal (RHR) service water pump room, fire zone 7C6;
- Unit 1 primary containment, fire zone 2J;
- Unit 1 high pressure core spray (HPCS) pump room, fire zone 2I2; and
- Unit 2 Div. II DG room, fire zone 8B2.

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. Using the documents listed in the Attachment, 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 five quarterly fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

No findings were identified.

1R07 Annual Heat Sink Performance (71111.07)

.1 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the licensee's testing of the RHR A heat exchanger to verify that potential deficiencies did not mask the licensee's ability to detect degraded performance, to identify any common cause issues that had the potential to increase risk, and to ensure that the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors reviewed the licensee's observations as compared against acceptance criteria, the correlation of scheduled testing and the frequency of testing, and the impact of instrument inaccuracies on test results. Inspectors also verified that test acceptance criteria considered differences between test conditions, design conditions, and testing conditions. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one annual heat sink performance sample as defined in IP 71111.07-05.

b. Findings

No findings were identified.

1R08 Inservice Inspection Activities (71111.08G)

From February 15 through 18, 2012, the inspectors conducted a review of the implementation of the licensee's inservice inspection (ISI) program for monitoring degradation of the reactor coolant system, risk-significant piping and components, and containment systems.

The inspections described in Sections 1R08.1 and 1R08.5 below constituted one ISI inspection sample as defined in IP 71111.08-05.

.1 Piping Systems Inservice Inspection

a. Inspection Scope

The inspectors observed the following non-destructive examinations mandated by the American Society of Mechanical Engineers (ASME) Section XI Code to evaluate compliance with the ASME Code Section XI and Section V requirements and if any indications and defects detected were detected, to determine if these were dispositioned in accordance with the ASME Code or an NRC-approved alternative requirement:

- ultrasonic examination of feedwater pipe-to-pipe weld, 1FW-1001-13;
- ultrasonic examination of feedwater pipe-to-fluid head weld, 1FW-1002-15;
- ultrasonic examination of feedwater pipe-to-fluid head weld, 1FW-1001-16; and
- magnetic particle examination of RHR heat exchanger nozzle-to-shell weld, 1RH-HX1B-07.

During the prior outage non-destructive surface and volumetric examinations, the licensee did not identify any relevant/recordable indications. Therefore, no NRC review was completed for this IP attribute.

The licensee had not performed pressure boundary welding since the beginning of the preceding outage for Unit 1. Therefore, no NRC review was completed for this IP attribute.

b. Findings

No findings were identified.

.2 Reactor Pressure Vessel Upper Head Penetration Inspection Activities (Not Applicable)

.3 Boric Acid Corrosion Control (Not Applicable)

.4 Steam Generator Tube Inspection Activities (Not Applicable)

.5 Identification and Resolution of Problems

a. Inspection Scope

The inspectors performed a review of ISI-related problems entered into the licensee's CAP and conducted interviews with licensee staff to determine if:

- the licensee had established an appropriate threshold for identifying ISI-related problems;
- the licensee had performed a root cause (if applicable) and taken appropriate corrective actions; and
- the licensee had evaluated operating experience and industry generic issues related to ISI and pressure boundary integrity.

The inspectors performed these reviews to evaluate compliance with 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements. Documents reviewed are listed in the Attachment to this report.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review of Licensed Operator Requalification (71111.11Q)

a. Inspection Scope

On January 25, 2012, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification training to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and that 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 simulator sample as defined in IP 71111.11.

b. Findings

No findings were identified.

.2 Resident Inspector Quarterly Observation of Heightened Activity or Risk (71111.11Q)

a. Inspection Scope

On February 12, 2012, the inspectors observed activities in the main control room during Unit 1 shutdown activities. This was an activity that required heightened awareness or was related to increased risk. 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 (if applicable);
- correct use and implementation of procedures;
- control board (or equipment) manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and emergency plan actions and notifications (if applicable).

The performance in these areas was compared to pre-established operator action expectations, procedural compliance, and task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator heightened activity/risk 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:

- Units 1 and 2 DGs; and
- Units 1 and 2 hydraulic control units.

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:

- planned yellow risk during Unit 1 Div. I RHR work window;
- Unit 1 reactor head lift binding emergent issue;
- planned yellow risk during Unit 1 standby gas treatment, safety bus 142Y, and A DG out-of-service; and
- A control room ventilation inadvertent initiation.

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. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

1R15 Operability Determinations and Functional Assessments (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- operability evaluation (OpEval) 11-002, "Drywell Temperature Used as Input for the Containment Analysis," Rev. 2;
- OE 11-003, "Seismic Effects on BWR Control Rod Scram at Low Reactor Pressures," Rev. 0;
- OE-12-001, "Potential Vulnerability in Switchyard Single Open Phase Detection," Rev. 0;
- impairment of a high energy line break (HELB) floor penetration in the Unit 1 turbine building; and
- Units 1 and 2 fire barrier door seal issues.

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 TSs 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 OEs. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

Introduction: The inspectors identified an Unresolved Item (URI) associated with the potential impact on the operability of safety-related SSCs due to HELB barriers being defeated. Specifically, the two doors to the Unit 1 turbine driven reactor feed pump (TDRFP) rooms were found propped open with cable runs at a time when the rooms' floor plugs were removed. With the floor plugs removed, the TDRFP doors must be maintained shut as a HELB barrier.

Description: On February 15, 2012, with Unit 1 shutdown for an RFO, it was identified that two doors to the Unit 1 TDRFP rooms (doors 203 and 207) were propped open with cables and hoses. Corrective action program documents estimated that the doors were propped open for about 12 hours. Doors 203 and 207 were required to remain shut to act as HELB barriers while the floor plugs in the TDRFP rooms were removed, since the open plugs allowed the rooms to communicate with the Unit 1 auxiliary building. It is yet unknown as to the full extent of SSCs that were at risk within the auxiliary building as a result of the defeated hazard barriers. The lack of protection from a postulated Unit 2-generated HELB had the potential to adversely affect the operability/functionality of any SSCs in the area not environmentally qualified for the harsh conditions that a HELB might produce.

In response to the inspectors' questions about the specific SSCs that could have been affected, the licensee sought assistance from an outside contractor to perform an analysis of the postulated HELB effects. The results of this analysis will be required for the inspectors to complete their assessment of this issue. Therefore, an Unresolved Item is opened pending further review by the NRC staff of the licensee's analysis. (URI 05000373/2012002-01 and 05000374/2012002-01), Potential Impact on Operability of Safety-Related Components Due to Defeated High Energy Line Break Barriers

1R18 Plant Modifications (71111.18)

.1 Plant Modifications

a. Inspection Scope

The inspectors reviewed the following modifications:

- permanent procedure change for emergency core cooling system (ECCS) reverse flow test; and
- Unit 1 station auxiliary transformer undervoltage temporary modification.

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the UFSAR, and the TSs, as applicable, to verify that the modification did not affect the operability or availability of the affected systems. The inspectors, as applicable, observed ongoing and completed work

activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one temporary modification sample and one permanent plant modification sample as defined in IP 71111.18-05.

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 safety bus 142Y after installation of a modification;
- Unit 1 safety relief valve (SRV) check valve replacement; and
- Unit 2 Div. II PMT following modification for degraded voltage.

These activities were selected based upon the SSC'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 three PMT samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

1R20 Outage Activities (71111.20)

.1 Refueling Outage Activities

a. Inspection Scope

The inspectors reviewed the outage safety plan and contingency plans for the Unit 1 RFO, conducted February 13 through March 9, 2012, to confirm that the licensee had appropriately considered risk, industry experience, and previous site-specific problems in developing and implementing a plan that assured maintenance of defense-in-depth. During the RFO, the inspectors observed portions of the shutdown and cooldown processes and monitored licensee controls over the outage activities listed below:

- licensee configuration management, including maintenance of defense-in-depth commensurate with the outage safety plan for key safety functions and compliance with the applicable TS when taking equipment out-of-service;
- implementation of clearance activities and confirmation that tags were properly hung and equipment appropriately configured to safely support the work or testing;
- installation and configuration of reactor coolant pressure, level, and temperature instruments to provide accurate indication, accounting for instrument error;
- controls over the status and configuration of electrical systems to ensure that TS and outage safety plan requirements were met, and controls over switchyard activities;
- monitoring of decay heat removal processes, systems, and components;
- controls to ensure that outage work was not impacting the ability of the operators to operate the spent fuel pool cooling system;
- reactor water inventory controls including flow paths, configurations, and alternative means for inventory addition, and controls to prevent inventory loss;
- controls over activities that could affect reactivity;
- maintenance of secondary containment as required by TS;
- licensee fatigue management, as required by 10 CFR Part 26, Subpart I;
- refueling activities, including fuel handling and sipping to detect fuel assembly leakage;
- startup and ascension to full power operation, tracking of startup prerequisites, walkdown of the drywell (primary containment) to verify that debris had not been left which could block ECCS suction strainers, and reactor physics testing; and
- licensee identification and resolution of problems related to RFO activities.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted one RFO sample as defined in IP 71111.20-05.

b. Findings

No findings were identified.

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:

- LIS-RI-201, RCIC Steam High Flow Isolation Calibration (Routine);
- LEP-HC-101, General Inspection of the Reactor Building Overhead Crane (Routine);
- LOS-DG-110, Unit 1 Integrated Division II Response Time Surveillance (Routine);
- LOS-DG-Q1, 0 DG Cooling Water Pump Inservice Test (IST);
- LTS-900-26, Low Pressure Coolant Injection (LPCI) Pressure Isolation Valves Water Leak Rate Test (Containment Isolation Valve(CIV)); and
- LTS-100-8, Drywell Personnel Access Hatch Inner/Outer Door Seal Leak Rate Test (CIV).

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 ISI testing activities, testing was performed in accordance with the applicable version of ASME Section XI, 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 three routine surveillance testing samples, one IST sample, and two containment isolation valve samples as defined in IP 71111.22-02 and -05.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Public Radiation Safety and Occupational Radiation Safety

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

This inspection constituted a partial sample as defined in IP 71124.01-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed all licensee performance indicators (PIs) for the Occupational Exposure Cornerstone for followup. The inspectors reviewed the results of radiation protection (RP) program audits (e.g., licensee's quality assurance audits or other independent audits). The inspectors reviewed any reports of operational occurrences related to occupational radiation safety since the last inspection. The inspectors reviewed the results of the audit and operational report reviews to gain insights into overall licensee performance.

b. Findings

No findings were identified.

.2 Radiological Hazard Assessment (02.02)

a. Inspection Scope

The inspectors determined if there have been changes to plant operations since the last inspection that may result in a significant new radiological hazard for onsite workers or members of the public. The inspectors evaluated whether the licensee assessed the potential impact of these changes and has implemented periodic monitoring, as appropriate, to detect and quantify the radiological hazard.

The inspectors reviewed the last two radiological surveys from selected plant areas and evaluated whether the thoroughness and frequency of the surveys were appropriate for the given radiological hazard.

The inspectors conducted walkdowns of the facility, including radioactive waste processing, storage, and handling areas; to evaluate material conditions and performed independent radiation measurements to verify conditions.

The inspectors selected the following radiologically risk-significant work activities that involved exposure to radiation:

- control rod drive (CRD) drywell activities;
- drywell ISI nozzle inspection activities; and
- suppression pool dive activities.

For these work activities, the inspectors assessed whether the pre-work surveys performed were appropriate to identify and quantify the radiological hazard and to establish adequate protective measures. The inspectors evaluated the radiological survey program to determine if hazards were properly identified, including the following:

- identification of hot particles;
- presence of alpha emitters;
- potential for airborne radioactive materials, including the potential presence of transuranics and/or other hard-to-detect radioactive materials (This evaluation may include licensee planned entry into non-routinely entered areas subject to previous contamination from failed fuel.);
- hazards associated with work activities that could suddenly and severely increase radiological conditions and that the licensee had established a means to inform workers of changes that could significantly impact their occupational dose; and
- severe radiation field dose gradients that could result in non-uniform exposures of the body.

The inspectors observed work in potential airborne areas and evaluated whether the air samples were representative of the breathing air zone. The inspectors evaluated whether continuous air monitors were located in areas with low background to minimize false alarms and were representative of actual work areas. The inspectors evaluated the licensee's program for monitoring levels of loose surface contamination in areas of the plant with the potential for the contamination to become airborne.

b. Findings

No findings were identified.

.3 Instructions to Workers (02.03)

a. Inspection Scope

The inspectors reviewed the following radiation work permits used to access high radiation areas and evaluated the specified work control instructions or control barriers;

- CRD drywell activities;
- drywell ISI nozzle inspection activities; and
- suppression pool dive activities.

For these radiation work permits, the inspectors assessed whether allowable stay times or permissible dose (including from the intake of radioactive material) for radiologically significant work under each radiation work permit were clearly identified. The inspectors evaluated whether electronic personal dosimeter alarm setpoints were in conformance with survey indications and plant policy.

The inspectors reviewed selected occurrences where a worker's electronic personal dosimeter noticeably malfunctioned or alarmed. The inspectors evaluated whether workers responded appropriately to the off-normal condition. The inspectors assessed whether the issue was included in the CAP and dose evaluations were conducted as appropriate.

b. Findings

No findings were identified.

.4 Contamination and Radioactive Material Control (02.04)

a. Inspection Scope

The inspectors observed locations where the licensee monitors potentially contaminated material leaving the radiological control area and inspected the methods used for control, survey, and release from these areas. The inspectors observed the performance of personnel surveying and releasing material for unrestricted use and evaluated whether the work was performed in accordance with plant procedures and whether the procedures were sufficient to control the spread of contamination and prevent unintended release of radioactive materials from the site. The inspectors assessed whether the radiation monitoring instrumentation had appropriate sensitivity for the type(s) of radiation present.

The inspectors reviewed the licensee's criteria for the survey and release of potentially contaminated material. The inspectors evaluated whether there was guidance on how to respond to an alarm that indicates the presence of licensed radioactive material.

The inspectors reviewed the licensee's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting parameters. The inspectors assessed whether or not the licensee has established a de facto "release limit" by altering the instrument's typical sensitivity through such methods as raising the energy discriminator level or locating the instrument in a high-radiation background area.

b. Findings

No findings were identified.

.5 Radiological Hazards Control and Work Coverage (02.05)

a. Inspection Scope

The inspectors evaluated ambient radiological conditions (e.g., radiation levels or potential radiation levels) during tours of the facility. The inspectors assessed whether the conditions were consistent with applicable posted surveys, radiation work permits, and worker briefings.

The inspectors evaluated the adequacy of radiological controls, such as required surveys, RP job coverage (including audio and visual surveillance for remote job coverage), and contamination controls. The inspectors evaluated the licensee's use of electronic personal dosimeters in high noise areas as high radiation area monitoring devices.

The inspectors assessed whether radiation monitoring devices were placed on the individual's body consistent with licensee procedures. The inspectors assessed whether the dosimeter was placed in the location of highest expected dose or that the licensee properly employed an NRC-approved method of determining effective dose equivalent.

The inspectors reviewed the application of dosimetry to effectively monitor exposure to personnel in high-radiation work areas with significant dose rate gradients.

The inspectors reviewed the following radiation work permits for work within airborne radioactivity areas with the potential for individual worker internal exposures.

- drywell safety-related valve activities;
- CRD drywell activities;
- drywell ISI nozzle inspection activities; and
- suppression pool dive activities.

For these radiation work permits, the inspectors evaluated airborne radioactive controls and monitoring, including potential for significant airborne levels (e.g., grinding, grit blasting, system breaches, entries into tanks, cubicles, and reactor cavities). The inspectors assessed barrier (e.g., tent or glove box) integrity and temporary high-efficiency particulate air ventilation system operation.

b. Findings

No findings were identified.

.6 Risk-Significant High Radiation Area and Very High Radiation Area Controls (02.06)

a. Inspection Scope

The inspectors discussed with the RP manager the controls and procedures for high-risk high radiation areas and very high radiation areas. The inspectors discussed methods employed by the licensee to provide stricter control of very high radiation area access as specified in 10 CFR 20.1602, "Control of Access to Very High Radiation Areas," and Regulatory Guide 8.38, "Control of Access to High and Very High Radiation Areas of Nuclear Plants." The inspectors assessed whether any changes to licensee procedures substantially reduced the effectiveness and level of worker protection.

The inspectors discussed the controls in place for special areas that have the potential to become very high radiation areas during certain plant operations with first-line health physics supervisors (or equivalent positions having backshift health physics oversight authority). The inspectors assessed whether these plant operations require communication beforehand with the health physics group, so as to allow corresponding timely actions to properly post, control, and monitor the radiation hazards including re-access authorization.

The inspectors evaluated licensee controls for very high radiation areas and areas with the potential to become very high radiation areas to ensure that an individual was not able to gain unauthorized access to the very high radiation area.

b. Findings

No findings were identified.

.7 Radiation Worker Performance (02.07)

a. Inspection Scope

The inspectors observed radiation worker performance with respect to stated RP work requirements. The inspectors assessed whether workers were aware of the radiological conditions in their workplace and the radiation work permit controls/limits in place, and whether their performance reflected the level of radiological hazards present.

The inspectors reviewed radiological problem reports since the last inspection that found the cause of the event to be human performance errors. The inspectors evaluated whether there was an observable pattern traceable to a similar cause. The inspectors assessed whether this perspective matched the corrective action approach taken by the licensee to resolve the reported problems. The inspectors discussed with the RP manager any problems with the corrective actions planned or taken.

b. Findings

No findings were identified.

.8 Radiation Protection Technician Proficiency (02.08)

a. Inspection Scope

The inspectors observed the performance of the RP technicians with respect to all RP work requirements. The inspectors evaluated whether technicians were aware of the radiological conditions in their workplace and the radiation work permit controls/limits, and whether their performance was consistent with their training and qualifications with respect to the radiological hazards and work activities.

The inspectors reviewed radiological problem reports since the last inspection that found the cause of the event to be RP technician error. The inspectors evaluated whether there was an observable pattern traceable to a similar cause. The inspectors assessed whether this perspective matched the corrective action approach taken by the licensee to resolve the reported problems.

b. Findings

No findings were identified.

.9 Problem Identification and Resolution (02.09)

a. Inspection Scope

The inspectors evaluated whether problems associated with radiation monitoring and exposure control were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee's CAP. The inspectors assessed the appropriateness of the corrective actions for a selected sample of problems documented by the licensee that involve radiation monitoring and exposure controls. The inspectors assessed the licensee's process for applying operating experience to their plant.

b. Findings

No findings were identified.

2RS2 Occupational As-Low-As-Is-Reasonably-Achievable Planning and Controls (71124.02)

This inspection constituted a partial sample as defined in IP 71124.02-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed pertinent information regarding plant collective exposure history, current exposure trends, and ongoing or planned activities in order to assess current performance and exposure challenges. The inspectors reviewed the plant's three-year rolling average collective exposure.

The inspectors reviewed site-specific procedures associated with maintaining occupational exposures as-low-as-is-reasonably-achievable (ALARA), which included a review of processes used to estimate and track exposures from specific work activities.

b. Findings

No findings were identified.

.2 Radiological Work Planning (02.02)

a. Inspection Scope

The inspectors selected the following work activities of the highest exposure significance.

- drywell safety-related valve activities;
- CRD drywell activities;
- drywell ISI nozzle inspection activities; and
- suppression pool dive activities.

The inspectors assessed whether the licensee's planning identified appropriate dose mitigation features; considered alternate mitigation features; and defined reasonable dose goals. The inspectors evaluated whether the licensee's ALARA assessment had taken into account decreased worker efficiency from use of respiratory protective devices and/or heat stress mitigation equipment (e.g., ice vests). The inspectors determined whether the licensee's work planning considered the use of remote technologies (e.g., teledosimetry, remote visual monitoring, and robotics) as a means to reduce dose and the use of dose reduction insights from industry operating experience and plant-specific lessons learned. The inspectors assessed the integration of ALARA requirements into work procedure and radiation work permit documents.

b. Findings

No findings were identified.

.3 Verification of Dose Estimates and Exposure Tracking Systems (02.03)

a. Inspection Scope

The inspectors evaluated whether the licensee had established measures to track, trend, and if necessary, to reduce occupational doses for ongoing work activities. The inspectors assessed whether trigger points or criteria were established to prompt additional reviews and/or additional ALARA planning and controls.

The inspectors evaluated the licensee's method of adjusting exposure estimates, or re-planning work, when unexpected changes in scope or emergent work were encountered. The inspectors assessed whether adjustments to exposure estimates (intended dose) were based on sound RP and ALARA principles or if they were just adjusted to account for failures to control the work. The inspectors evaluated whether the frequency of these adjustments called into question the adequacy of the original ALARA planning process.

b. Findings

No findings were identified.

.4 Source Term Reduction and Control (02.04)

a. Inspection Scope

The inspectors used licensee records to determine the historical trends and current status of significant tracked plant source terms known to contribute to elevated facility aggregate exposure. The inspectors assessed whether the licensee had made allowances or developed contingency plans for expected changes in the source term as the result of changes in plant fuel performance issues or changes in plant primary chemistry.

b. Findings

No findings were identified.

.5 Radiation Worker Performance (02.05)

a. Inspection Scope

The inspectors observed radiation worker and RP technician performance during work activities being performed in radiation areas, airborne radioactivity areas, or high radiation areas. The inspectors evaluated whether workers demonstrated the ALARA philosophy in practice (e.g., workers were familiar with the work activity scope and tools to be used, workers used ALARA low-dose waiting areas), and whether there were any procedure compliance issues (e.g., workers were not complying with work activity controls). The inspectors observed radiation worker performance to assess whether the training and skill level was sufficient with respect to the radiological hazards and the work involved.

b. Findings

No findings were identified.

4. **OTHER ACTIVITIES**

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

4OA1 Performance Indicator Verification (71151)

.1 Unplanned Scrams per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams per 7000 Critical Hours PI for Units 1 and 2 for the first quarter 2011 through the fourth quarter 2011. To determine the accuracy of the PI data reported during this period, 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, issue reports, event reports, and NRC Integrated Inspection Reports for the period to validate the accuracy of the submittals. 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 unplanned scrams per 7000 critical hours samples as defined in IP 71151-05.

b. Findings

No findings were identified.

.2 Unplanned Scrams with Complications

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams with Complications PI for Units 1 and 2 for the first quarter 2011 through the fourth quarter 2011. To determine the accuracy of the PI data reported during this period, 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, event reports, and NRC Integrated Inspection Reports for the period 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. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two unplanned scrams with complications samples as defined in IP 71151-05.

b. Findings

No findings were identified.

.3 Unplanned Transients per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Transients per 7000 Critical Hours PI for Units 1 and 2 for the first quarter 2011 through the fourth quarter 2011. To determine the accuracy of the PI data reported during this period, 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, maintenance rule records, event reports, and NRC Integrated Inspection Reports for the period 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. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two unplanned transients per 7000 critical hours samples 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 Selected Issue Followup Inspection: Corrective Actions Associated with Operability Evaluation 11-002

a. Inspection Scope

During a previous inspection of LaSalle Operability Evaluation (OpEval) 11-002, "Drywell Temp Used as Input for the Containment Analysis," the inspectors reviewed the effects of the identified condition on the operability of the drywell and its penetrations, and noted that the licensee developed a number of compensatory measures and corrective actions. In this present inspection sample, the inspectors evaluated in greater detail the compensatory measures and corrective actions to ensure that those actions developed were technically sound and carried out as intended.

This review constituted one in-depth PI&R sample as defined in IP 71152-05.

b. Findings

Failure to Implement Proceduralized Corrective Actions

Introduction: A finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's failure to implement appropriate proceduralized compensatory measures associated with LaSalle OpEval 11-002, "Drywell Temp Used as Input for the Containment Analysis." Specifically, non-conservative temperature limits were established for the control room shiftly surveillance procedure and written instructions were not included for drywell penetration local leak rate test parameters to ensure the adequate performance of the tests.

Description: In late January 2012, during an inspection of the corrective actions associated with OpEval 11-002, the inspectors identified that two of the compensatory measures established under the OpEval were not appropriately implemented. Specifically, Compensatory Measure #2 called for control room operators to periodically monitor drywell temperature to ensure that it does not go below 98 degrees Fahrenheit (°F) while each unit was operating at power. Additionally, Corrective Action #6 was established to ensure that the upcoming primary containment penetration local leak rate tests, to be performed during the Unit 1 L1R14 RFO in February and March of 2102, would be tested to the new peak pressure of 41.1 pounds per square inch (psi) versus the previous value of 39.9 psi.

To implement Compensatory Measure #2, the station revised LOS-AA-S101/201, the operators' shiftly surveillance procedure, to include a new lower limit on drywell temperature. Previously, only an upper temperature limit existed in this procedure. Due to the location of the drywell temperature elements with respect to the often cooler primary containment ventilation air flow paths, the procedure historically factored in a conservative adjustment factor to compensate for the potentially cooler air's effect on temperature readings. For example, if cooler air is blowing on the temperature element, a temperature reading of 123.5°F could actually be indicative of a 135°F bulk drywell temperature. The air flow is not always significantly cooler than the bulk drywell temperature, however, and historical data have shown that the temperature difference can be as close as nearly equal (a difference of 0.7°F). To be conservative, this adjustment factor was always applied to the upper limit.

This same adjustment factor was, however, also applied to the lower temperature limit by the licensee. The inspectors concluded that applying this factor to the lower limit was non-conservative because the ventilation air flow can be nearly equal to the bulk temperature reading. This means that if the air flow was not significantly cool, then a reading of 98°F could actually be indicative of a bulk drywell temperature of nearly 98°F. Upon discovery by the inspectors, the licensee's procedure could have theoretically allowed temperatures to reach as low as 86.5°F by inappropriately applying the adjustment factor to the lower limit. Upon notification by the inspectors, the licensee promptly evaluated the issue and revised the procedure to remove the non-conservatism.

To implement Corrective Action #6, the station decided that a verbally communicated administrative control of crucial test parameters was adequate to ensure that the leak rate testing used the new value of 41.1 psi. Leak rate testing of a containment penetration's ability to perform its safety function is considered an activity affecting quality in accordance with Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)," and 10 CFR Part 50, Appendix B. As such, the inspectors concluded that a verbal administrative control of a test parameter was inappropriate. Upon notification of this issue by the inspectors, the licensee promptly revised the penetrations' individual test sheets (which are 10 CFR Part 50, Appendix B quality documents) to put in place prescribed written instructions of a type appropriate to the circumstances to ensure the 41.1 psi test pressure.

Analysis: The inspectors determined that the failure to establish instructions and procedures of a type appropriate to the circumstances for activities affecting quality was contrary to the requirements of 10 CFR Part 50, Appendix B, Criterion V, and was a performance deficiency.

The finding was determined to be more than minor because it was associated with the Barrier Integrity Cornerstone attribute of procedure quality and affected the cornerstone objective of providing reasonable assurance that physical design barriers (in this case, primary containment) protect the public from radionuclide releases caused by accidents or events. Additionally, if left uncorrected, the finding had the potential to lead to a more significant safety concern. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Containment Barrier, dated January 10, 2008. The finding was determined to be of very low safety significance because all questions in the Containment Barrier column were answered "No."

This finding has a cross-cutting aspect in the area of PI&R, CAP, because the licensee did not take appropriate corrective actions to address safety issues in a timely manner, commensurate with their safety significance and complexity. Specifically, failing to appropriately execute corrective actions that were established in an OpEval resulted in the failure to establish appropriate instruction and procedures (P.1(d)).

Enforcement: 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings.

Contrary to the above, from November 9, 2011, to January 31, 2012, the licensee failed to maintain procedures appropriate to the circumstances for activities affecting quality associated with OpEval 11-002. Specifically, the Operations Department failed to ensure that an appropriate temperature limit was established in the shiftly surveillance procedures and the Engineering Department failed to prescribe written instructions of a type appropriate to the circumstances for penetration testing. Because this violation was of very low safety significance and it was entered into the licensee's CAP, as ARs 01317568 and 01321079, this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy (NCV 05000373/2012002-02; 05000374/2012002-02, Failure to Implement Proceduralized Corrective Actions).

40A6 Management Meetings

.1 Exit Meeting Summary

On April 5, 2012, the inspectors presented the inspection results to Mr. P. Karaba, and other members of the licensee 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:

- results of the ISI inspection with Ms. J. Shields on February 23, 2012; and
- results of the radiological hazard assessment and exposure controls inspection, and occupational ALARA planning and controls inspection with Mr. D. Rhoades, Site Vice President, on March 2, 2012.

The inspectors confirmed that none of the potential report input discussed was considered proprietary. Proprietary material received during the inspection was returned to the licensee.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

D. Rhoades, Site Vice President
P. Karaba, Plant Manager
K. Hedgspeth, Radiation Protection Manager
C. Howard, Manager, Radiation Protection Operation
R. Conley, Manager, Technical Support
K. Ihnen, Nuclear Oversight Manager
T. Simpkin, Regulatory Affairs Manager
H. Vinyard, Site Engineering Director
M. Sharma, Engineering Program Manager
S. Shields, Regulatory Affairs
J. Shields, ISI Program Manager
J. Smith, Operations Training Manager
J. Hughes, Emergency Preparedness Coordinator
T. Green, NDE Level III

Nuclear Regulatory Commission

Michael Kunowski, Chief, Reactor Projects Branch 5
Hironori Peterson, Chief, Operations Branch
Billy Dickson, Chief, Plant Support Team
AnnMarie Stone, Chief, Engineering Branch 2

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000373/2012002-01; URI Potential Impact on Operability of Safety-Related
05000374/2012002-01 Components Due to Defeated High Energy Line Break
Barriers (Section 1R15)

05000373/2012002-02; NCV Failure to Implement Proceduralized Corrective Actions
05000374/2012002-02 (Section 4OA2)

Closed

05000373/2012002-02; NCV Failure to Implement Proceduralized Corrective Actions
05000374/2012002-02 (Section 4OA2)

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:

- LOA-TORN-001; High Winds / Tornado; Rev. 14

Miscellaneous:

- Weather Forecast from weather.gov for Marseilles, Illinois; 2/23/2012
- Weather Forecast from weather.gov for Seneca, Illinois; 2/23/2012

1R04 Equipment Alignment

Procedures:

- LOS-DG-M1; 0 Diesel Generator Operability Test; Rev. 74

Issue Reports:

- 1122067; Div 2 RHR Corner Room VY Duct Temp Indication
- 1205829; 0 DG Cylinder 2 – Greater Than 300 Deg D/T Indicated
- 1347310; NRC Question on Floor Drains by VY Coolers

Figures and Drawings:

- 065-07; Training Figure: Typical CSCS Cubicle Cooling System; 3/2001
- 128-3; CSCS Equipment Cooling Ventilation System; 2/2003
- 128-4; Switchgear Heat Removal System; 2/2003

Miscellaneous:

- 065 Core Standby Cooling System ECW; Training Document Typical Cubicle (Corner Room) Area Cooler
- 128 VD_VY_VX; Training Document CSCS Equipment Cooling Ventilation System
- Check List Search; 2/21/2012, 3/8/2012
- LSCS-UFSAR 9.4; Safety Evaluation; Revs. 13, 15, and 17

1R05 Fire Protection

Procedures:

- OP-AA-201-009; Control of Transient Combustible Material; Rev. 11

Issue Reports:

- 1031256; Fire Watch Cameras Inoperable
- 1041788; Through Hole Leak at Pipe Elbow 1A DG Day Tank Room.
- 1068667; Fire Detection Zone 2-10 Alarm While Running 2B DG
- 1190669; U2 HPCS Diesel Room – Floor Fire Barrier Degradation
- 1291956; NRC Id'd Sprinkler Head Partially Blocked in U1 DG Corridor

Miscellaneous:

- FZ 2I2; LaSalle County Generating Station Pre-Fire Plan for RX Bldg. 673' 4" Elev. U1 HPCS Cubicle
- FZ 8B2; LaSalle County Generating Station Pre-Fire Plan for DG Bldg. 710' 0" Elev. U2 Div 2 Standby Diesel – Generator Room
- UFSAR 3.5.2-1 Amendment 147/133; Emergency Core Cooling Systems (ECCS) and Reactor Core Isolation Cooling (RCIC) System LCO 3.5.2 Two ECCS Injection/Spray Systems Shall Be OPERABLE
- UFSAR B 3.5; Emergency Core Cooling Systems (ECCS) and Reactor Core Isolation Cooling (RCIC) System; Rev. 0
- UFSAR 3.8 Amendment 172/158; Electrical Power Systems LCO 3.8.1 Electrical Power Sources Shall Be OPERABLE
- UFSAR 3.8; Electrical Power Systems; Rev. 19

1R07 Annual Heat Sink Performance

Issue Reports:

- 1338051; 1A RHR HX Cover Plate Degradation

Working Documents:

- EC 387647; Evaluation of the 1A RHR Heat Exchanger Eddy Current Testing (1E12-B001A, WOs 1318003, 1318004); Rev. 0
- ER-AA-340-1002; HX Inspection Report 1E12-B001A; 2/20/2012

1R08 ISI Activities

Procedures:

- ER-AA-335-003; Magnetic Particle Examination; Rev. 4
- GE-PDI-UT-1; PDI Generic Procedure for the Ultrasonic Examination of Ferritic Pipe Welds; 10/27/2008

Issue Reports:

- 1030879; Relevant ISI Indications on RV Head Washers from L1R12
- 1167872; ASME Consideration Not Part of Purchase Order

Miscellaneous:

- 386HA480; GE-Hitachi Nuclear Energy Written Practice for Certification of Nondestructive Test Personnel; Rev. 24

1R11 Licensed Operator Requalification Program

Miscellaneous:

- IER 11-3 Drill 3; Dynamic Simulator Scenario Guide; Rev. 0

1R12 Maintenance Effectiveness

Issue Reports:

- 1041521; 1B DG Fuel Line Leak
- 1057576; Review Grease Type Used in Diesel Generators
- 1130574; 2A DG Frequency Meter 2SI-DG028 Near Calibration Limits
- 1210396; 1DG08CB Degraded Air Leak Led to Shutdown of Air Compressor
- 1243373; Feed Breaker to 0VD01C at 135X-2 Found Tripped

- 1250669; 1B DG High Crankcase Press Alarm Setpoints Needed
- 1263812; Valve Leaksby – Was Not Repaired Under WO: 930423-01
- 1318440; 2A DG Frequency Swings
- 1318441; Reads Approx 50 KW Less Than Comp Point E425
- 1670203; Valve 1E22-F314 Eroded Internally

Working Documents:

- DG-01; Performance Monitory Summary: Unavailability Report; 2/1/2010 – 1/31/2012
- EC 381102; Evaluation for Replacing Mobiltemp SHC 32 Grease with Mobilgrease XHP 222 in EDG Generator Bearings; 8/17/2010
- IR 1041521; Functional Failure Cause Determination Evaluation for DG-04, ER-AA-2008 MSPI Failure Determination Documented in the MSPI and WANO Report; 5/5/2010
- System Health Reports, Unit 0 EDG – Diesel Generator; Quarterly Reports for 2011
- System Health Reports, Unit 1 DG – Diesel Generator; Quarterly Reports for 2011
- System Health Reports, Unit 2 DG – Diesel Generator; Quarterly Reports for 2011
- WO 1309927-02; Plant Barrier Impairment Permit, Door 469, Unit 1; 7/18/2011

Miscellaneous:

- A/R 1041521-04; Internal Memo from Kent Nelson Regarding 1B DG Fuel Line Leak / Evaluate Results of Failure Analysis; 6/21/2010
- CPS Performance Summary Table with Criteria, System, Function, Usage, Limit, Balance; undated
- LaSalle Operations Log, 7/24/2011 – 7/25/2011

1R13 Maintenance Risk Assessments and Emergent Work Control

Procedures:

- MA-AB-756-600; Exelon Reactor Services Process Control Document; Rev. 14

Working Documents:

- WO 1375971-01; Refuel Floor Crane Inspection Prior to Refueling Outage; 6/21/2011
- WO 1473853-01; 90-Day Inspection per LMS-HC-01 (Annual Reactor Building Crane Inspection); 12/14/2011

Miscellaneous:

- LSCS-UFSAR O-1; Appendix O – Control of Heavy Loads; Rev. 19

1R15 Operability Determinations and Functional Assessments

Procedures:

- CC-LA-201-1001; Plant Barrier Control Program Implementation; Rev. 3
- LOP-RD-20; Control Rod Accumulator Recharging/Water Removal; Rev. 11
- LOS-AA-W1; Technical Specifications Weekly Surveillances; Rev. 68
- LOS-RD-SR7; Channel Interference Monitoring; Rev. 20
- LOS-RD-SR12; Scram Insertion Times; Rev. 00
- LTS-900-14; Underground RCIC Piping Test; Rev. 7
- NF-LA-721-1000; Attachment 2; Control Rod Move Sheet; Rev. 4
- NF-LA-721-1002; Attachment 2; Control Rod Move Sheet; Rev. 5

Issue Reports:

- 1177566; RCIC Piping Exceeded Pressure Drop Acceptance Criteria
- 1254218; Part 21 SC 11-04 Seismic Impact on Channel Distortion
- 1321301; (Byron) U2 RX Trip IR to Include in Operator Training
- 1322212; (Byron) Potential Design Vulnerability in SY Single Open Phase
- 1322615; RM- Accumulators 22-07, 06-09, 22-35 Under 1100# - Charged
- 1323071; Fire Door 406 PBI TRM 3.7.0 Time Clock Expiration
- 1326920; PBI FP-N-10-794.00 R8 Revision Needed
- 1326937; L1R14 Conditions for PBI Not Maintained
- 1331412; LTS-900-14 RCIC Underground Piping Results
- 1336897; Seal Damaged or Missing on Door 394
- 1336901; Seal Damaged or Missing on Door 391
- 1336903; Seal Damaged or Missing on Door 507
- 1336905; Seal Damaged or Missing on Door 402
- 1336910; Seal Damaged or Missing on Door 873

Working Documents:

- PBI-FP-N-10-794.00r8; Plant Barrier Impairment Permit, Floor Plug W/O 1318196-05; 7/18/2011
- PBI-FP-R-8-794.01r8; Plant Barrier Impairment Permit, Floor Plugs W/O 1318196-25, 1318196-07; 7/26/2011

Operability Evaluations:

- OE 11-002; Drywell Temp Used as Input for the Containment Analysis; Rev. 2
- OE 11-003 / AT 1254218-06 / IR 1254218; Seismic Effects on CRD SCRAM from Low Pressure; Rev. 0, Rev. 1, Rev. 2
- OE 12-001; Potential Vulnerability in Switchyard Single Open Phase Detection; Rev. 0

Miscellaneous:

- LSCS-UFSAR 4.6-1; Functional Design of Reactivity Control Systems; Rev. 13
- MFN 08-420; GE Hitachi Nuclear Energy letter to NRC Regarding Update to GEH Surveillance Program for Channel-Control Blade Interference Monitoring; 12/19/2008
- MFN 10-245; GE Hitachi Nuclear Energy letter to NRC Regarding Part 21 60-Day Interim Report Notification: Failure to Include Seismic Input in Channel-Control Blade Interference Customer Guidance; 9/2/2010 (Rev. 0), 9/27/2010 (Rev. 1), 12/15/2010 (Rev. 2), 8/11/2011 (Rev. 3), and 9/26/2011 (Rev. 4)
- MFN 11-237; GE Hitachi Nuclear Energy letter to NRC Regarding Supplemental Information Associated with MFN 10-245 R4, Part 21 Reportable Condition Notification; 12/19/2011
- PORC 12-007; LPF-100-1 "Master Refuel Procedure", OpEval 12-001, "Potential Vulnerability in Switchyard Single Open Phase Detection", OE 10-006 "Non-Conservative Tech Spec Value for Loss of Voltage and Degraded Voltage"; 2/10/2012
- Unit Common Standing Order; CRD Compensatory Measures (IR 1254218); Log Number 12-01; Rev. 0

1R18 Plant Modifications

Procedures:

- ER-AA-321; Administrative Requirements for Inservice Testing; Rev. 11
- LLP-2012-001; ECCS Check Valve Reverse Flushing; Rev. 0
- LOS-HP-R2; HPCS Injection Line Flush and Check Valve Inservice Test; Rev. 14
- LOS-LP-R1; LPCS Injection Line Flush and Check Valve Inservice Test; Rev. 15

- LOS-RH-R1; LPCI Injection Line Check Valve Inservice Test; Rev. 18
- LS-AA-104-1000; 10 CFR 50.54 & 50.55a; Rev. 6
- LTS-900-26; Low Pressure Coolant Injection (LPCI) Pressure Isolation Valves 1(2)E12-F041A/B/C & 1(2)E12-F042A/B/C Water Leak Test; Rev. 2

Issue Reports:

- 1216558; Bnchmkg (EN) ECCS Piping Modification
- 1220106; Results for AP-1 Vulnerability Assessment
- 1302442; L1R14 – HP Testable Check Manual Stroke for IST
- 1302443; L1R14 – LP Testable Check Manual Stroke for IST
- 1302446; L1R14 – B RHR Testable Check Manual Stroke for IST
- 1302449; L1R14 – C RHR Testable Check Manual Stroke for IST
- 1302469; L1R14 – B SDC Testable Check Manual Stroke for IST
- 1302818; L1R14 – Reverse Flush ECCS Check Valves – Engineering Support
- 1305453; ODM for ECCS Nozzles Flushing Methodology
- 1326856; L1R14LL: Elev. Dose Rates from LPCS Reverse ECCS Flush
- 1326863; U1 SAT and Bus 13 Related PM Deferral from L1R14 to L1R15
- 1326918; L1R14 LL ECCS Reverse Flushes
- 1327492; LPCS Reverse Flush Results from 2/15/2012 Flush
- 1327502; RPIDS Elev. Dose Rates after “C” LPCI Reverse ECCS Flushes
- 1331213; Need to Replace Control Device for ACB 1421
- 1332165; L1R14 LL: Add Jumpers in the Bus Tie Closure Logic
- 1332404; PM Deferral
- 1334597; NOS ID TCCP Installation Issue

Figures and Drawings:

- 1E-1-4223AA; TCCP 387627; Rev. O
- 1E-1-4223AC; Schematic Diagram 4160V Switchgear 143 Auxiliary Compartment System “HP” (E22B) Part 3; Rev. V
- 1E-1-4343AB; Internal/External Wiring Diagram 4160V Switchgear 141Y Part 2; Rev. U
- 1E-1-4346AB; Internal/External Wiring Diagram HPCS 4160V Switchgear 143 Cubicle 2; Rev. 5
- 1E-2-4005AM; Schematic Diagram 4160V Switchgear 141Y (1AP04E) Auxiliary Compartment System “AP” Part 12; Rev. M
- 1E-2-4005AT; Schematic Diagram 4160V Switchgear 142Y (1AP06E) Auxiliary Compartment System “AP” Part 18; Rev. O
- 1E-2-4005CS; TCCP 387627; Rev. O
- 1E-2-4005CT; TCCP 387627; Rev. O
- AP-1; AC Distribution (Training Use); Rev. 3
- AP-3; AC Distribution (Training Use); Rev. 4
- M-94; P & ID: Low Pressure Core Spray (LPCS); Rev. M
- M-95; P & ID: High Pressure Core Spray (HPCS); Rev. AP
- M-96; P & ID: Residual Heat Removal System (RHRS); Sheet 1, Rev. AY
- M-96; P & ID: Residual Heat Removal System (RHRS); Sheet 2, Rev. AX
- M-96; P & ID: Residual Heat Removal System (RHRS); Sheet 3, Rev. AT
- SW-1; Switchyard System (Training Use); Rev. 3
- UFSAR Figure 8.1-1; Single-Line Diagram 345 Kv Switchyard; Rev. 18
- UFSAR Figure 8.1-2; One-Line Diagram Station Auxiliary Power; Rev. 18
- UFSAR Figure 8.1-3; One-Line Diagram Station Auxiliary Power Distribution System; Rev. 0
- UFSAR Figure 8.1-4; Diagram of Switchyard DC Control System; Rev. 0

Working Documents:

- CTP-IST-001, Appendix 1; Evaluation of Preconditioning Acceptability; undated (for L1R14)
- CTP-IST-001; Preconditioning of IST Program Components; Rev. 1
- EC 287655; Torque Value Acceptance Criteria, Rev. 0
- EC 387627; TCCP Installation / Removal Instructions and Test Requirements; Rev. 0
- EC 387626; Temporary Upgrade of Bus 241Y/242Y/243 Degraded Voltage Alarm (Byron Issue); 2/17/2010
- EC 387627; Design Attribute Review; Rev. 0
- EC 387627; Modify bus 141Y, 142Y and 143 Undervoltage and Degraded Voltage Main Control Room Alarms (Byron Issue); 3/1/2012
- EC 387627-01; Modify bus 141Y, 142Y and 143 Undervoltage and Degraded Voltage Main Control Room Alarms; 2/21/2012
- EC 387627/387626; 50.59 Review of Modify Bus 141Y(241Y), 142Y(242Y) and 143(243) Undervoltage and Degraded Voltage Control Room Alarms; Rev. 0
- IST-LAS-PLAN; Cold Shutdown Justification – CS-17, Rev. 1
- MA-LA-773-401; Relay Calibration for Bus 141Y Cubicle 2 Div. 1, Undervoltage and Degraded Voltage Relays; 2/29/2012
- MA-LA-773-401; Relay Calibration for Bus 141Y Cubicle 2 Div. 3, Undervoltage and Degraded Voltage Relays; 2/29/2012
- OE 12-001; Operability Evaluation: Potential Vulnerability in Switchyard Single Open Phase Detection; Rev. 0
- TCCP 387627; Unit 1 TCC Tag List; Rev. 0
- WO 1498831-01; M2 Manual Stroke Check Valve 1E22-F005 for IST; Doc 1A Major Rev. 1
- WO 1498832-01; M2 Manual Stroke Check Valve 1E21-F006 for IST; Doc 1A
- WO 1498834-01; M2 Manual Stroke Check Valve 1E12-F041C for IST; Doc 1A
- WO 1511917-01; Install TCCP – SAT Under Voltage Mod; 2/23/2012
- WO 1511917-04; OAD to Perform Testing for Alarm Circuits Modified per EC-387627; Rev. 0
- WO 1511917-04; OAP Perform TCCP#
- WO 1511917; Install TCCP – SAT Under Voltage Mod; 3/1/2012

Miscellaneous:

- ASME OMB CODE-2003; Subsection ISTC Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plants; undated
- LSCS-UFSAR 6.3; Emergency Core Cooling Systems; Rev. 13
- LSCS-UFSAR 8.1; Electric Power; Revs. 13 & 14
- LSCS-UFSAR 8.2; Offsite Power System; Rev. 14
- LSCS-UFSAR Table 8.1-1; Power Assignment of Safety/Related Systems to Electrical Divisions for Separation; Rev. 15
- RAL-1112; Flowserve: Testing Torque for 12-900 TDC Valves; Rev. 1

1R19 Post-Maintenance Testing

Procedures:

- LST-2011-004; Unit 1 MSO Modification Test Synchrocheck Division 2 EC 380788; Revs. 1 & 2

Issue Reports:

- 1034146; 1B21-F036E Failed Drop Test
- 1171718; E SRV Non-Ads Accumulator Check Valve Needs Repair
- 1330508; LST-2011-004 Testing Problems – 1427 – AP039X1
- 1332531; 1B21-F013E SRV Non-Ads Accumulator Pressure Drop Test Failed
- 1335640; Seal Tite Pulled Out of SRV H Position Indication on DW 777

Figures and Drawings:

- 070-04; Training Figure, Safety Relief Valve Operator; 9/2005

Working Documents:

- LST-2011-004; 50.59 Review Unit 1 MSO Modification Test EC380788 Division 2; Revs. 1 & 2
- LST-2011-004; Special Test and Procedure Approval: Unit 1 MSO Mod Test Synchrocheck Relay Div 2 EC 380788; Rev. 2

Miscellaneous:

- 070; Main Steam; System Training Document
- 097; Drywell Pneumatics; System Training Document
- 5.2-14; LSCS UFSAR Safety Relief Valves; Rev. 14

1R20 Refueling and Other Outage Activities

Procedures:

- LGP-1-1; Normal Unit Startup; Rev. 99
- LGP-2-1; Normal Unit Shutdown; Rev. 93
- LOP-RH-07; Shutdown Cooling System Startup, Operation and Transfer; Rev. 66
- LS-AA-119; Fatigue Management and Work Hour Limits; Rev. 9
- LS-AA-119-1001; Fatigue Management; Rev. 1
- LS-11-119-1002; Scoping of Work Hour Limits; Rev. 1

Issue Reports:

- 1327747; RXS CP#2 Unit 1 Refuel Bridge Mast Premature Slack Cable
- 1327808; L1R14 FME Found in Jet Pump 9 Nozzle
- 1327973; L1R14 FM RFF – Small Jagged Metal Piece Retrieved
- 1328005; WHR Time Limit Exceeded Needs RA Review for Violation
- 1328767; 1B21-MSBPV-2 Transducer Connection Rod “As Found” OOT
- 1328788; L1R14 1B21-F032A LLRT Exceeded Admin Limit of < 45 SCFH
- 1329519; Insulator on 136Y Transformer Found Broken
- 1329663; WHR Waiver Required to Cover ERO Position Opening (Illness)
- 1331726; Foreign material, Check Valve Disc Nut Cotterpin Missing
- 1332160; Historical FME Discovered in Annulus at Jet Pump 05/06
- 1332163; Historical FME Discovered in Bottom Head at Cell 24-29
- 1332164; Historical FME Detected in RPB Bottom Head at Location 32-29
- 1332198; Historical FME in RPV Between Stub Tubes 26-23 & 26-27
- 1332436; WHR Waiver Required to Cover ERO Position Opening (Illness)
- 1332851; FME in Annulus by JP 2
- 1332854; FME in Annulus by JP 10
- 1332857; FME in Annulus by JP 8
- 1332861; FME in Annulus at Base of JP 7
- 1332865; FME in Annulus Near JP 6
- 1332868; FME in Annulus Near JP 7
- 1332872; FME in Annulus Near JP 11

- 1333113; RM – Loss of Rod Position Indication for Rod 22-03
- 1333124; 1E12-R601, RHR Temp Recorder Points Labeled “Invalid”
- 1333128; OD18-R519, SGBT WRGM Chan Act, Channels Labeled “Invalid”
- 1333644; Valves Not in Position Required by Clearance Order
- 1333954; FME Recovered from Feedwater End Bracket at 175 Degrees
- 1333947; JP #2 FME Was Retrieved per Attachment 10 of MA-AA-716-008
- 1334020; FME Recovery Was Not Successful – RX Vessel / Jetpump #5 Area
- 1335459; 1E MPT Low Voltage Bushing Damage
- 1335700; U-2 Fuel Pool Leakage Alarm
- 1335742; 1E51-F084 RCIC Check Valve IST Failure, Start Up Issue
- 1335797; L1R14 LL: Undervessel Sump Level Coordination
- 1335807; WHR Waiver Required to Cover ERO Position Opening (Illness)
- 1337026; RM – Replace SSPV on 50-23 Reference IR 1336347
- 1337087; RM – Control Rod 34-23 Has Drive Flow with No Drive Signal
- 1337107; RM – Unit 1 HCU 34-23 Stuck 123 Valve

Miscellaneous:

- L1R14 Approved Maintenance Work Order (MTWO) List; 1st Quarter 2012
- LS-AA-119-1001; Fatigue Assessment, Rad. Prot. Coverage; 3/3/2012
- LS-AA-119-1001; Fatigue Assessment, Desk Duties; 2/22/2012
- LS-AA-119-1001; Post Event Fatigue Assessment; 2/23/2012
- LS-AA-119; 10 CFR 26 Work Hour Limits Waiver for Radiation Protection Employee; 2/26/2012
- LS-AA-119; 10 CFR 26 Work Hour Limits Waiver; 2/22/2012
- LS-AA-119; 10 CFR 26 Work Hour Limits Waiver for Radiation Protection Employee; 2/28/2012
- LS-AA-119-1001; Fatigue Assessment; Rad. Prot. Coverage; 2/28/2012
- NANTel Fatigue Assessment Training; 7/15/2009
- NOSPALS-11-3T; LaSalle NOS Management Directed Assessment L1R14 Outage Readiness Report; 2/6/2012
- PORC 12-00, 3/3/2012
- Schedule Report for Operating 2/2012-3/2012; 2/20/2012
- Schedule Report for EMD; 2/2012
- Schedule Report for IMD; 2/2012
- Qualification Status Report; Fatigue Assessors; 2/28/2012
- Violation Report, Fatigue; 2/21/2012 – 2/29/2012

1R22 Surveillance Testing

Procedures:

- LES-DC-708; Unit 1(2) Division III Battery Service Test Discharge; Rev. 3
- LIS-RI-201; Unit 2 RCIC Steam Line High Flow Isolation Calibration; Rev. 21
- LOS-RH-Q1; RHR (LPCI) and RHR Service Water Pump and Valve Inservice Test for Modes 1,2,3,4, and 5; Rev. 78
- LTS-300-2; Drywell Personnel Air Lock Local Leak Rate Test; Rev. 16
- LTS-300-5; Primary Containment Leak Rate Testing Program; Rev. 40
- LTS-100-8; Drywell Personnel Access Hatch Inner/Outer Door Seals Leak Rate Test; Rev. 9
- LTS-100-55; Drywell Personnel Airlock Shaft Seals Local Leak Rate Test; Rev. 3
- LTS-900-26; Low Pressure coolant Injection (LPCI) Pressure Isolation valves 1(2)E12-F041A/B/C & 1(2)E12-F042A/B/C Water Leak Test; Rev. 2

Issue Reports:

- 1032851; Borescope RHR F042A Motor in L1R14
- 1036850; 1E12-F041B 1 DPM Over 5 Min Leak at Packing
- 1312714; 2E31-N007AA Found with Water in Switch Housing
- 1327320; Good Catch, Battery BCT-2000 Software
- 1327419; L1R14 LLRT Could Not Be Performed Per Schedule on 1E12-F025C
- 1330554; LOS-DG-110 Can't be Performed as Written/PCR Needed
- 1331901; No 1D RHR WS Pump Auto Trip Alarm or Amber Trip Light
- 1330508; LST-2011-004 Testing Problems
- 1343305; Biennial Comprehensive Pump Tests Need Predefines

Working Documents:

- 1M-111 IBL; Leak Rate Test Sheet; 7/14/2010
- 1M-111 IBUS; Leak Rate Test Sheet; 7/14/2010
- 1M-111 OBUS; Leak Rate Test Sheet; 7/14/2010
- 1M-111 OBL; Leak Rate Test Sheet; 7/14/2010
- WO 1164140-01; LLRT DW Personnel Airlock Shaft Seals; 2/25/2010
- WO 1316231-01; DW Personnel Airlock Door Seal LLRT; 2/3/2011
- WO 1319370-01; LPCI PIV 1E12-F041C High Pressure Water Leak Test; 1/18/2012
- WO 1320037-01; Integrated Div II ECCS Response Time; 2/24/2012
- WO 1328234-01; LLRT DW Personnel Airlock Shaft Seals; 1/10/2012
- WO 1375971-01; Refuel Floor Crane Inspection Prior to Refueling Outage; 6/21/2011
- WO 1409876-01; DW Personnel Airlock Door Seal LLRT; 2/8/2012
- WO 1473853-01; 90-Day Inspection per LMS-HC-01 (Annual Reactor Building Crane Inspection); 12/14/2011
- WO 1503384-01; LOS-DG-Q1 0 DG CWP Biennial Comprehensive IST Pump Test; 3/16/2012
- WO 1503384-02; LOS-DG-Q1 0 DG CWP Biennial Comprehensive IST Pump Test; 3/21/2012
- WO 1506349-01; OP LOS-RH-Q1 1B RHR ATT 1B; 4/5/2012

Miscellaneous:

- Course 01ODSL; Operations Training Program – Initial and Continuing Training, Primary and Secondary Containments; 3/5/2009
- Operator Log Entries Report; 1/12/2012 - 1/13/2012

2RS1 Radiological Hazard Assessment and Exposure Controls

Procedures:

- RP-AA-460; Controls for High and Locked High Radiation Areas; Rev. 21
- RP-AA-460-002; Additional High Radiation Exposure Control; Rev. 0
- RP-AA-870-1002; Use of Vacuum Cleaners in Radiologically Controlled Areas; Rev. 3

Issue Reports:

- 1326121; PCE on the Refuel Floor 843' at the Clean Side Area
- 1326378; Electrical Maintenance Worker was Contaminated Working at the Clean Side of the Condenser Pit
- 1326464; Boiler Maker was Contaminated on the Neck While Working on the Refuel Floor
- 1327666; Boiler Maker was Contaminated on the Face upon Completion of Work on the Scorpion Platform at the Refuel Floor
- 1328412; GE Worker Got Contaminated While Working Under Vessel
- 1328834; A Worker was Facially Contaminated While Removing a Nozzle Flushing Equipment on the Refuel Floor

- 1328886; Boilermaker was Contaminated in the Face While Working on the Feedwater Heater Tubes
- 1329538; Refuel Inspection Equipment Engineer Got Contaminated on the Face by the Robotic Umbilical Cord
- 1329983; Under Vessel Worker Performing Un-Coupling was Contaminated on the Knee
- 1339935; Worker While In-Processing at Susquehanna was Found Contaminated with Low Level Contamination
- 1328171; Electronic Dosimeter (ED) Rate Alarm in Drywell
- 1328755; ED Alarm Obtained While in Contact with Pipe
- 1332105; RP Behavior Correction Specialist
- 1328454; RP Behavior Correction Specialist

2RS2 Occupational ALARA Planning and Controls

Procedures:

- ALARA-10012717; Drywell SRV Activities; ALARA Work In Progress Review; 2/20/2012
- ALARA-10012733; CRD Pull/Put and Demobilization; ALARA Work In Progress Review; 2/24/2012
- ALARA-10012741; Drywell ISI Nozzle Inspection Activities; ALARA Work In Progress Review; 2/21/2012
- ALARA-10012759; L1R14 Valve Work in Reaction Building
- ALARA-10012762; L1R14 Suppression Pool Dive Activities and Support; ALARA Work In Progress Review; 2/20/2012
- RP-AA-210; Dosimetry Issue, Usage and Control; Rev. 21
- RP-AA-210-1001; Multiple Dosimetry EDE Evaluation Sheet; CRD Uncoupling and Detorque; 2/20/2012
- RP-AA-401; Operational ALARA Planning and Control; Rev. 13
- RWP-10012740; ALARA-10012740; L1R14 Drywell Sump Work ALARA Plan; Rev. 1
- RWP-10012759; L1R14 Valve Work in Reaction Building; Rev. 1
- RWP-10012762; L1R14 Suppression Pool Dive Activities and Support; Rev. 1
- RWP-10012741; Drywell ISI Nozzle Inspection Activities; Rev. 0
- RWP-10012733; CRD Pull/Put and Demobilization; Rev. 1
- RWP-10012717; Drywell SRV Activities; Rev. 2

Issue Reports:

- 1331922; Inefficient Floor Drains Cause Station Dose ALARA

4OA1 Performance Indicator Verification

Issue Reports:

- 1169879; U-2 Response from the U-1 Scram
- 1169881; Various U1 Control Rod Scram Valves Indicate Open

Working Documents:

- LS-AA-2030; Monthly Data Elements for NRC Unplanned Power Changes per 7000 Critical Hours; 1/2011, 3/2011, 5/2011

Licensee Event Reports:

- 2011-001-00; Automatic Reactor Scram Due to Main Power Transformer "C" Phase Electrical Fault; 2/1/2011
- 2011-002-00; Unit Shutdown Required by Plant Technical Specifications Due to Pressure Boundary Leakage

Event Notifications:

- EN 46582; Reactor Scram After a Main Transformer Trip; 2/1/2011

40A2 Identification and Resolution of Problems

Procedures:

- LOS-AA-S101, 1PM09/1PM10J/D.11; Rev. 76

Issue Reports:

- 1245184; EPU Sensitivity Study Results Concerning PA
- 1321079; NRC Question Regarding LLRT Test Pressure per Op Eval

Issue Reports Resulting from NRC/IEEMA Inspection:

- 1245184; EPU Sensitivity Study Results Concerning PA
- 1291956; NRC Id'd Sprinkler Head Partially Blocked in U1 DG Corridor
- 1309364; NRC Traditional Enforcement Violation
- 1316735; NRC had Question about RCMS
- 1317568; NRC Question on Shiftly Reading Temperature Band
- 1321079; NRC Question Regarding LLRT Test Pressure per Op Eval
- 1321415; NRC Identified – Evaluate EMF Effects of Power Tools
- 1322615; RM- Accumulators 22-07, 06-19, 22-35 under 1100# - Charged
- 1329960; NRC Resident Identified Expired Chemical Permit
- 1330549; NRC Question Regarding 1E12-F025B/C Work in L1R14
- 1331606; Security - NRC Questions Cage Blocked Open in Bld.
- 1333254; Missing Document for Work Order 1271367-6 in EDMS
- 1335212; NRC Identified – Drywell Temp. Limits Discrepancy
- 1336790; NRC-ID: Final DW Close-out Inspection
- 1341532; NRC Identified: Questions About Door 203
- 1345891; NRC Question – Repair Plan for the 2B33-F019

Calculations:

- L-002880; Additional Margin for Drywell Bulk Temperature (EC 341543);Rev. 000A

Operability Evaluations:

- OE 11-002; Drywell Temp Used as Input for the Containment Analysis (IR 1245184); Rev. 2

Miscellaneous:

- EC380464; Evaluation of Preconditioning of TS and TRM Pressure Switches; Rev. 1
- LOS-AA-S101; Unit 1 Shiftly Surveillance for Mode 1, 2, or 3; 11/9/2011
- LOS-AA-S101; Unit 1 Shiftly Surveillance for Mode 1, 2, or 3; 1/25/2012
- LOS-AA-S101; Unit 2 Shiftly Surveillance for Mode 1, 2, or 3; 1/25/2012
- Log 11-08; Unit Common Standing Order for Potential Non-Conservative Tech Spec Action (IR 1245184); 7/28/2011 – 12/31/2011

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
ALARA	As-Low-As-Is-Reasonably-Achievable
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CRD	Control Rod Drive
CIV	Containment Isolation Valve
CSCS	Core Standby Cooling System
°F	Degrees Fahrenheit
DG	Diesel Generator
DW	Drywell
ECCS	Emergency Core Cooling System
GE	General Electric
HELB	High Energy Line Break
HPCS	High Pressure Core Spray
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
IR	Issue Report
ISI	Inservice Inspection
IST	Inservice Test
LPCI	Low Pressure Coolant Injection
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
OpEval	Operability Evaluation
PARS	Publicly Available Records System
PI	Performance Indicator
PI&R	Problem Identification and Resolution
PMT	Post-Maintenance Testing
psi	Pounds Per Square Inch
RFO	Refueling Outage
RHR	Residual Heat Removal
RP	Radiation Protection
SDP	Significance Determination Process
SLC	Standby Liquid Control
SRV	Safety Relief Valve
SSC	Structure, System, and Component
TDRFP	Turbine-Driven Reactor Feed Pump
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
WO	Work Order

M. Pacilio

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Sincerely,

/RA/

Michael Kunowski, Chief
Branch 5
Division of Reactor Projects

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

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Letter to M. Pacilio from M. Kunowski dated May 2, 2012

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2,
NRC INTEGRATED INSPECTION REPORT 05000373/2012002;
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