



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
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February 10, 2015

Mr. Bryan C. Hanson  
Senior VP, Exelon Generation Company, LLC  
President and CNO, Exelon Nuclear  
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Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2  
NRC INTEGRATED INSPECTION REPORT 05000373/2014005;  
05000374/2014005

Dear Mr. Hanson:

On December 31, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your LaSalle County Station, Units 1 and 2. On January 7, 2015, the NRC inspectors discussed the results of this inspection with the Site Vice-President, Mr. P. Karaba, and other members of your staff. The inspectors documented the results of this inspection in the enclosed inspection report.

The NRC inspectors documented one NRC-identified finding and one self-revealed finding of very low safety significance (Green) in this report. These findings involved violations of NRC requirements. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2.a of the NRC Enforcement Policy.

If you contest these NCVs, 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, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the LaSalle County Station.

If you disagree with a 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 the LaSalle County Station.

B. Hanson

-2-

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter and 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 Agencywide Documents Access and Management System (ADAMS), 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; 50-374  
License Nos. NPF-11; NPF-18

Enclosure:  
IR 05000373/2014005; 05000374/2014005  
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 05000373; 05000374

License Nos: NPF-11; NPF-18

Report No: 05000373/2014005; 05000374/2014005

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: Marseilles, IL

Dates: October 1, 2014 – December 31, 2014

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Branch 5  
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Enclosure

## TABLE OF CONTENTS

SUMMARY OF FINDINGS .....	2
REPORT DETAILS .....	4
Summary of Plant Status.....	4
1. REACTOR SAFETY .....	4
1R04 Equipment Alignment (71111.04) .....	4
1R05 Fire Protection (71111.05) .....	5
1R06 Flood Protection Measures (71111.06).....	9
1R11 Licensed Operator Requalification Program (71111.11).....	10
1R12 Maintenance Effectiveness (71111.12).....	11
1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13) .....	12
1R15 Operability Determinations and Functional Assessments (71111.15) .....	13
1R19 Post-Maintenance Testing (71111.19).....	13
1R20 Outage Activities (71111.20).....	14
1R22 Surveillance Testing (71111.22) .....	15
1EP4 Emergency Action Level and Emergency Plan Changes (71114.04) .....	16
1EP6 Drill Evaluation (71114.06).....	16
2. RADIATION SAFETY .....	17
2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01) .....	17
2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08).....	20
4. OTHER ACTIVITIES.....	24
4OA1 Performance Indicator Verification (71151) .....	25
4OA2 Identification and Resolution of Problems (71152) .....	28
4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153) .....	30
4OA5 Other Activities .....	33
4OA6 Management Meetings .....	34
SUPPLEMENTAL INFORMATION .....	1
KEY POINTS OF CONTACT.....	1
LIST OF ITEMS OPENED, CLOSED AND DISCUSSED .....	2
LIST OF DOCUMENTS REVIEWED.....	3
LIST OF ACRONYMS USED .....	14

## SUMMARY OF FINDINGS

Inspection Report 05000373/2014005, 05000374/2014005; 10/01/2014 – 12/31/2014; LaSalle County Station, Units 1 and 2; Fire Protection and Followup of Events and Notices of Enforcement Discretion.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Two Green findings were identified. The findings were considered non-cited violations (NCVs) of NRC requirements. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated June 2, 2011. Cross-cutting aspects are determined using IMC 0310, "Aspects Within the Cross-Cutting Areas," effective date December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated July 9, 2013. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5.

### Cornerstone: Initiating Events

- Green. A finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed for the licensee's failure to establish instructions for an activity affecting quality that were appropriate to the circumstances. Specifically, when the Unit 2 'C' inboard main steam isolation valve (MSIV) failed shut due to a stem-to-disc separation on August 5, 2014, inspectors reviewed the circumstances leading to the failure and determined that engineering change (EC) 340595 was deficient. This EC was created in response to 2003 industry operating experience (OE) for the same failure mechanism (loss of pretension on the shaft-to-pilot-disc) at another facility, with the purpose of establishing inspection acceptance criteria to determine if the OE applied to LaSalle. The inspectors concluded that the acceptance criteria were inappropriate to the circumstances because they contained no guidance for identifying or dispositioning the actual failure mechanism reported in the OE. Even though two of the five MSIVs inspected at the time by the licensee displayed evidence of the OE-reported failure mechanism (loss of pretension), the acceptance criteria as written were satisfied, so the MSIVs passed their inspections and future rebuild activities were deferred based primarily on these false-negative inspection results. It was due to these deferrals that the August 5th failure occurred. All MSIV internals have since been rebuilt with a more robust design that is not susceptible to a loss of pretension failure, and a root cause evaluation was performed.

The performance deficiency was determined to be more than minor because it was associated with the Initiating Events Cornerstone attribute of procedure quality and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Since the valve failure caused a reactor scram and loss of condenser as the normal heat sink due to the Group I MSIV isolation, a detailed risk evaluation was required. The RIII Senior Reactor Analysts (SRAs) performed a detailed risk evaluation using the NRC's Standardized Plant Analysis Risk model for LaSalle, version 8.24, and

calculated a conditional core damage probability estimate of 8.4E-7, which represents a finding of very low safety significance, or Green. Because this performance deficiency occurred in 2003, no cross-cutting aspect was assigned because it was not considered current performance. (Section 4OA3)

### **Cornerstone: Mitigating Systems**

- Green. The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure on September 11, 2014, to develop and supply specific minimum clearance requirements to maintenance staff prior to erecting scaffold in close proximity to safety-related equipment. The licensee has entered this item into its corrective action program (CAP).

The performance deficiency was determined to be more than minor because, if left uncorrected, the performance deficiency has the potential to become a more significant safety concern. Specifically, the method used to determine the minimum clearances did not account for the potential motion of in-place systems/components. The inspectors determined the finding could be evaluated in accordance with IMC 0609, "Significance Determination Process," Exhibit 2, "Mitigating System Screening Questions," dated June 2, 2011. The finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Training, because the licensee did not provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values (H.9). (Section 1R05)

## REPORT DETAILS

### Summary of Plant Status

#### **Unit 1**

The unit began the inspection period operating at full power. On October 11, 2014, Unit 1 began shutting down for a mid-cycle maintenance outage, L1M21, to rebuild five of eight MSIVs. On October 12, the unit was taken offline. Following the completion of the outage activities, the unit was synchronized to the grid on October 19. On October 24, unit power was reduced to 55 percent to facilitate the repair of a steam leak associated with the turbine control valves, which developed during the L1M21 restart. Full power was restored the next day and, with the exception of minor reductions in power to support routine surveillances, the plant remained at full power for the remainder of the quarter.

#### **Unit 2**

The unit began the inspection period operating at full power. With the exception of minor reductions in power to support routine surveillances or rod pattern adjustments, the plant remained at full power for the entire quarter.

### **1. REACTOR SAFETY**

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

#### 1R04 Equipment Alignment (71111.04)

##### .1 Quarterly Partial System Walkdowns

##### a. Inspection Scope

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

- Unit 2 'B' diesel generator (DG) air start system;
- Unit 2 'A' residual heat removal (RHR) system;
- Unit 2 high pressure core spray (HPCS) system; and
- Unit 2 'B' standby liquid control (SBLC).

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 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 four partial system walkdown samples as defined in Inspection Procedure (IP) 71111.04–05.

b. Findings

No findings were identified.

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

On October 10, 2014, the inspectors performed a complete system alignment inspection of the Unit 1 SBLC 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:

- lake screen house;
- Units 1 and 2 refuel floor; and
- Unit 2 low pressure core spray (LPCS) / reactor core isolation cooling (RCIC) pump room.

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the Attachment to this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

(1) Scaffold Installed Without Engineering Review

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to develop and supply specific minimum clearance requirements to maintenance staff prior to erecting scaffold in close proximity to safety-related equipment.

Description: On November 7, 2014, during a routine fire protection sample in the Unit 2 RCIC / LPCS room, the inspectors noted the proximity of scaffold erected near safety-related equipment; LPCS pump motor. The clearance appeared to be less than 3 inches. The inspectors recalled that the guidance for erecting scaffolding near safety-related equipment required engineering involvement when clearances were small. The inspectors reviewed the attached paperwork and noticed that the box indicating engineering review required was marked not applicable (N/A).

Maintenance staff indicated to the inspectors that that engineering staff involvement was not required for this particular scaffold. The inspectors then determined that engineering staff erroneously believed that minimum spacing requirements outlined in Figure 9 of Nuclear Engineering Standard NES-MS-04.1, "Seismic Prequalified Scaffolds," Revision 6, were sufficient and that additional engineering review was not required.

Licensee staff cited Note 1 in Table 2, "Horizontal Clearance Requirements to Safety-Related Equipment for Seismic Scaffolds," of NES-MS-04.1. Table 2 indicated that the minimum clearance for the reactor building is 3.5 inches for elevations below 843'. Note 1 indicated that all scaffold shall meet the above horizontal clearance requirements for operable safety-related equipment or be clearance tied [anchored] as

specified in Figure 9. Additionally, if the scaffold was tied-off [anchored], the above clearances did not apply. Figure 9, "Clearance Ties," contained the equation " $A \geq (H + \frac{1}{4} \text{ inch})$ " where A represented the clearance to a safety-related component and H represented the free motion of the scaffold expected during a seismic event. Licensee staff incorrectly concluded that an anchored scaffold with H=0 could be built with clearances as low as  $\frac{1}{4}$  inch by procedure.

The inspectors referenced Section 7.0, "General Scaffold Requirements." Item 6 of that section stated that "adequate horizontal and vertical clearances between scaffolds and operable, safety-related equipment and components shall be maintained at all times. Thermal and seismic movements of safety-related piping/equipment are not included in the clearance table and shall be considered [emphasis added]. See Note 3 of Table 2 for additional clearance requirements."

Note 3 of Table 2 stated that "movement of in-place systems/components are not included; clearances should be increased accordingly." The inspectors noted that during a seismic event, individual components could and are expected to move; the amount that a given component could move varied based on many variables including the rigidity of the component, the size and weight of the component, its elevation in the building, and mounting/support methods used. The inspectors also noted that the additional guidance provided in Note 3 of Table 2 was not repeated in Figure 9.

Nuclear Engineering Standard NES-MS-04.1 was a corporate procedure that was used across the Exelon fleet. Some stations have placed additional guidance for minimum clearances in Note 3. Note 3 did not mention LaSalle Station by name, but did conclude with "for all other stations, Engineering shall be contacted to provide clearance requirements." The inspectors conclude that, per Note 3 of Table 2, engineering staff should have developed and supplied specific minimum clearance requirements to maintenance staff prior to erecting scaffold in close proximity to safety-related equipment. The licensee entered this issue into the CAP as Action Request (AR) 2407748, "NRC Question for Seismic Scaffold."

Under AR 2408668, "NRC ID'd – Scaffold Not Inspected In Accordance With Installation Guideline," licensee staff reviewed the scaffold issue and agreed that, due to the scaffolds close proximity to safety-related equipment, an engineering review should have been performed.

Analysis: The inspectors determined that the failure to develop and supply specific minimum clearance requirements to maintenance staff prior to erecting scaffold in close proximity to safety-related equipment was contrary to NES-MS-04.1, "Seismic Prequalified Scaffolds," and was a performance deficiency.

Using IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, the inspectors determined that the performance deficiency was more than minor because, if left uncorrected, it would become a more significant safety concern. Specifically, the method used to determine the minimum clearances did not account for the potential motion of in-place systems/components, and the licensee's misinterpretation of the scaffold requirements would have continued if not for the intervention of the inspectors. The inspectors concluded this finding was associated with the Mitigating System Cornerstone due to the proximity of the scaffold to the LPCS pump.

The inspectors determined the finding could be evaluated using the Significance Determination Process in accordance with IMC 0609, "Significance Determination Process," Exhibit 2, "Mitigating System Screening Questions," dated June 2, 2011. The finding was determined to be of very low safety significance (Green) in accordance with the Significance Determination Process because the inspectors answered "No" to each of the screening questions.

This finding has a cross-cutting aspect in the area of Human Performance, Training, because the licensee did not provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values (H.9). Specifically, engineering staff failed to develop and supply specific minimum clearance requirements to maintenance staff prior to erecting scaffold in close proximity to safety-related equipment. The way in which staff misinterpreted the guidance of NES-MS-04.1 contributed to this error. To address this gap in understanding, the licensee plans to communicate the procedural requirements to engineering and maintenance staff.

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by documented procedures of a type appropriate to the circumstances and be accomplished in accordance with these procedures. The licensee established NES-MS-04.1, "Seismic Prequalified Scaffolds," Revision 6, as the implementing procedure for constructing seismically qualified scaffold, an activity affecting quality.

Procedure NES-MS-04.1, Section 7.0, "General Scaffold Requirements," Item 6 states that "adequate horizontal and vertical clearances between scaffolds and operable, safety-related equipment and components shall be maintained at all times. Thermal and seismic movements of safety-related piping/equipment are not included in the clearance table and shall be considered. See Note 3 of Table 2 for additional clearance requirements."

Note 3 states "for all other stations, Engineering shall be contacted to provide clearance requirements." The inspectors conclude that, per Note 3 of Table 2, engineering staff, after considering the thermal and seismic movements of the safety-related piping and equipment, were required to develop and supply maintenance staff with specific minimum clearance requirements.

Contrary to the above, on September 11, 2014, the licensee failed to comply with Section 7, Item 6 of procedure NES-MS-04.1, Revision 6, as modified by Note 3 of Table 2. Specifically, engineering staff failed to develop and supply specific minimum clearance requirements for scaffold erected by maintenance staff in close proximity to safety-related equipment.

As corrective actions, the licensee reviewed currently installed scaffold throughout the plant for compliance with the requirements of NES-MS-04.1. The licensee planned to: evaluate the potential for procedure enhancements; communicate the procedural requirements to engineering and maintenance personnel; and, conduct an Apparent Cause Evaluation. Additional corrective actions may result from the Apparent Cause Evaluation, which was not complete as of the writing of this report.

This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy. The violation was entered into the licensee's CAP as AR 2407748, "NRC Question for Seismic Scaffold," and AR 2408668, "NRC ID'd – Scaffold Not Inspected In Accordance With Installation Guideline," (NCV 05000374/2014005-01, Scaffold Installed Without Engineering Review).

.2 Annual Fire Protection Drill Observation (71111.05A)

a. Inspection Scope

On November 17, 2014, the inspectors observed a fire brigade activation for a fire drill in the Unit 1 cable spreading room. Based on this observation, as well as those observations made throughout the inspection year, the inspectors evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies, openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were:

- proper wearing of turnout gear and self-contained breathing apparatus;
- proper use and layout of fire hoses;
- employment of appropriate firefighting techniques;
- sufficient firefighting equipment brought to the scene;
- effectiveness of fire brigade leader communications, command, and control;
- search for victims and propagation of the fire into other plant areas;
- smoke removal operations;
- utilization of pre-planned strategies;
- adherence to the pre-planned drill scenario; and
- drill objectives.

Documents reviewed are listed in the Attachment to this report.

These activities constituted one annual fire protection inspection sample as defined in IP 71111.05–05.

b. Findings

No findings were identified.

1R06 Floodi Protection Measures (71111.06)

.1 Internal Flooding

a. Inspection Scope

The inspectors reviewed selected risk-important plant design features and licensee procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures to identify licensee commitments. The documents reviewed are listed in the Attachment to this report. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water, such as the fire suppression or the circulating

water systems. The inspectors also reviewed the licensee's CAP documents with respect to past flood-related items identified in the CAP to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the condenser flood-protected zone to assess the adequacy of watertight doors and verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted one internal flooding sample as defined in IP 71111.06–05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

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

a. Inspection Scope

On November 10, 2014, 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 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 During Periods of Heightened Activity or Risk (71111.11Q)

a. Inspection Scope

On October 11, 2014, the inspectors observed the Unit 1 shutdown sequence in the control room for maintenance outage L1M21. 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

a. Inspection Scope

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

- Unit 2 fuel pool cooling system after pump leak; and
- 2012–2014 periodic assessment report.

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:

- Unit 1 steam leak from main steam drain line during startup from L1M21;
- red nuclear condition report on hydraulic control units (HCUs);
- Unit 2 fuel pool cooling system after pump leak; and
- risk management due to emergent leak on Unit 2 'B' DG cooling water pump.

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 maintenance risk assessments and emergent work control activities constituted four 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:

- Unit 1 drywell spray ring header nozzle plug installed;
- Unit 1 RHR pump trip when starting for shutdown cooling;
- inservice testing relief valve scope expansion;
- Unit 1 'C' safety relief valve (SRV) flex conduit found degraded during L1M21 outage;
- Unit 2 'D' MSIV limit switch;
- Operability Evaluation 14-001;
- Unit 2 'B' RHR service water leak; and
- turbine stop valve #4 relay did not open (AR 02420487).

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

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

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Post-Maintenance Testing

a. Inspection Scope

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

- Unit 1 inboard MSIVs following replacement in outage L1M21;
- Unit 1 outboard MSIVs following replacement in outage L1M21; and
- Unit 1 'C' circulating water pump return-to-service.

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against TSs, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed CAP documents associated with post-maintenance tests 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 post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

1R20 Outage Activities (71111.20)

.1 Other Outage Activities

a. Inspection Scope

The inspectors evaluated outage activities for a scheduled outage on Unit 1 that began on October 12, 2014, and continued through October 19. The inspectors reviewed activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

Maintenance outage L1M21 was undertaken to upgrade the remainder of the MSIVs that had yet to be rebuilt to eliminate a known design vulnerability. The inspectors observed or reviewed the reactor shutdown and cooldown, outage equipment configuration and risk management, electrical lineups, selected clearances, control and monitoring of decay heat removal, control of containment activities, personnel fatigue management, startup and heatup activities, and identification and resolution of problems associated with the outage. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one other outage 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:

- HPCS DG cooling water pump (routine); and
- LOS-CS-1, secondary containment ventilation dampers (WO 1766646) (routine).

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

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency was in accordance with TSs, the UFSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and

- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted two routine surveillance testing samples as defined in IP 71111.22, Sections–02 and–05.

b. Findings

No findings were identified.

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

a. Inspection Scope

The regional inspectors performed an in-office review of the latest revisions to the Emergency Plan, Emergency Plan Annex, and Emergency Plan Implementing Procedures as listed in the Attachment to this report.

The licensee transmitted the Emergency Plan and Emergency Action Level revisions to the NRC pursuant to the requirements of 10 CFR Part 50, Appendix E, Section V, "Implementing Procedures." The NRC review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection. Documents reviewed are listed in the Attachment to this report.

This Emergency Action Level and Emergency Plan Change inspection constituted one sample as defined in IP 71114.04-06.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on December 2, 2014, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the simulator to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the CAP. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the Attachment to this report.

This emergency preparedness drill inspection constituted one sample as defined in IP 71114.06–06.

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)

The inspection activities supplemented those documented in NRC Inspection Report 05000373(374)/2014002 and constituted one 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 follow-up. 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 had been changes to plant operations since the last inspection that resulted 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 implemented periodic monitoring, as appropriate, to detect and quantify the radiological hazard.

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 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 monitored potentially contaminated material leaving the radiological control area and inspected the methods used for control, survey, and release from these areas. The inspectors observed 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 indicated 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.

The inspectors selected several sealed sources from the licensee's inventory records and assessed whether the sources were accounted for and verified to be intact.

The inspectors evaluated whether any transactions, since the last inspection, involving nationally tracked sources were reported in accordance with 10 CFR 20.2207.

b. Findings

No findings were identified.

.5 Radiological Hazards Control and Work Coverage (02.05)

a. Inspection Scope

The inspectors examined the licensee's physical and programmatic controls for highly activated or contaminated materials (i.e., nonfuel) stored within spent fuel and other storage pools. The inspectors assessed whether appropriate controls (i.e., administrative and physical controls) were in place to preclude inadvertent removal of these materials from the pool.

The inspectors examined the posting and physical controls for selected high radiation areas and very high radiation areas to verify conformance with the occupational PI.

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 had 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 a very high radiation areas to ensure that an individual was not able to gain unauthorized access to the very high radiation areas.

b. Findings

No findings were identified.

.7 Radiation Worker Performance (02.07)

a. Inspection Scope

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 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 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 OE to their plant.

b. Findings

No findings were identified.

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08)

This inspection constituted one sample as defined in IP 71124.08-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the solid radioactive waste system description in the UFSAR, the process control program, and the recent radiological effluent release report for information on the types, amounts, and processing of radioactive waste disposed.

The inspectors reviewed the scope of quality assurance audits in this area since the last inspection to gain insights into the licensee's performance and inform the "smart sampling" inspection planning.

b. Findings

No findings were identified.

.2 Radioactive Material Storage (02.02)

a. Inspection Scope

The inspectors selected areas where containers of radioactive waste were stored, and evaluated whether the containers were labeled in accordance with 10 CFR 20.1904, "Labeling Containers," or controlled in accordance with 10 CFR 20.1905, "Exemptions to Labeling Requirements."

The inspectors assessed whether the radioactive material storage areas were controlled and posted in accordance with the requirements of 10 CFR Part 20, "Standards for Protection against Radiation." For materials stored or used in the controlled or unrestricted areas, the inspectors evaluated whether they were secured against unauthorized removal and controlled in accordance with 10 CFR 20.1801, "Security of Stored Material," and 10 CFR 20.1802, "Control of Material Not in Storage."

The inspectors evaluated whether the licensee established a process for monitoring the impact of long-term storage (e.g., buildup of any gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, or re-release of free-flowing water) that was sufficient to identify potential unmonitored, unplanned releases or nonconformance with waste disposal requirements.

The inspectors selected containers of stored radioactive material, and assessed for signs of swelling, leakage, and deformation.

b. Findings

No findings were identified.

.3 Radioactive Waste System Walkdown (02.03)

a. Inspection Scope

The inspectors walked down accessible portions of select radioactive waste processing systems to assess whether the current system configuration and operation agreed with the descriptions in the UFSAR, Offsite Dose Calculation Manual (ODCM), and process control program.

The inspectors reviewed administrative and/or physical controls (i.e., drainage and isolation of the system from other systems) to assess whether the equipment which was not in service or abandoned in place would not contribute to an unmonitored release path and/or affect operating systems or be a source of unnecessary personnel exposure.

The inspectors assessed whether the licensee reviewed the safety significance of systems and equipment abandoned in place in accordance with 10 CFR 50.59, "Changes, Tests, and Experiments."

The inspectors reviewed the adequacy of changes made to the radioactive waste processing systems since the last inspection. The inspectors evaluated whether changes from what is described in the UFSAR were reviewed and documented in accordance with 10 CFR 50.59, as appropriate and to assess the impact on radiation doses to members of the public.

The inspectors selected processes for transferring radioactive waste resin and/or sludge discharges into shipping/disposal containers and assessed whether the waste stream mixing, sampling procedures, and methodology for waste concentration averaging were consistent with the process control program, and provided representative samples of the waste product for the purposes of waste classification as described in 10 CFR 61.55, "Waste Classification."

For those systems that provided tank recirculation, the inspectors evaluated whether the tank recirculation procedures provided sufficient mixing.

The inspectors assessed whether the licensee's process control program correctly described the current methods and procedures for dewatering and waste stabilization (e.g., removal of freestanding liquid).

b. Findings

No findings were identified.

.4 Waste Characterization and Classification (02.04)

a. Inspection Scope

The inspectors selected the following radioactive waste streams for review:

- LW 13-18; UN3321, LSA-II, one 21-300 liner of dewatered bead resin to Energy Solution LLC, Clive Utah;
- LW 13-38; UN3321, LSA-II, 40' sea-van containing dry active waste to Energy Solution Bear Creek, Oak Ridge, Tennessee; and
- LW 14-01; PL-21-300 FR liner containing bead resin waste in 21-300 cask to Energy Solution LLC, Clive Utah.

For the waste streams listed above, the inspectors assessed whether the licensee's radiochemical sample analysis results (i.e., "10 CFR Part 61" analysis) were sufficient to support radioactive waste characterization as required by 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste." The inspectors evaluated whether the licensee's use of scaling factors and calculations to account for difficult-to-measure radionuclides was technically sound and based on current 10 CFR Part 61 analysis for the selected radioactive waste streams.

The inspectors evaluated whether changes to plant operational parameters were taken into account to: (1) maintain the validity of the waste stream composition data between the annual or biennial sample analysis update; and (2) assure that waste shipments continued to meet the requirements of 10 CFR Part 61 for the waste streams selected above.

The inspectors evaluated whether the licensee had established and maintained an adequate quality assurance program to ensure compliance with the waste classification and characterization requirements of 10 CFR 61.55 and 10 CFR 61.56, "Waste Characteristics."

b. Findings

No findings were identified.

.5 Shipment Preparation (02.05)

a. Inspection Scope

The inspectors observed shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and licensee verification of shipment readiness. The inspectors assessed whether the requirements of applicable transport cask certificate of compliance had been met. The inspectors evaluated whether the receiving licensee was authorized to receive the shipment packages. The inspectors evaluated whether the licensee's procedures for cask loading and closure procedures were consistent with the vendor's current approved procedures.

The inspectors observed radiation workers during the conduct of radioactive waste processing and radioactive material shipment preparation and receipt activities. The inspectors assessed whether the shippers were knowledgeable of the shipping regulations and whether shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to:

- as appropriate, the licensee's response to NRC Bulletin 79-19, "Packaging of Low-Level Radioactive Waste for Transport and Burial," dated August 10, 1979; and
- Title 49 CFR Part 172, "Hazardous Materials Table, Special Provisions, Hazardous Materials Communication, Emergency Response Information, Training Requirements, and Security Plans," Subpart H, "Training."

Due to limited opportunities for direct observation, the inspectors reviewed the technical instructions presented to workers during routine training. The inspectors assessed whether the licensee's training program provided training to personnel responsible for the conduct of radioactive waste processing and radioactive material shipment preparation activities.

b. Findings

No findings were identified.

.6 Shipment Preparation (02.06)

a. Inspection Scope

The inspectors evaluated whether the shipping documents indicated the proper shipper name; emergency response information and a 24-hour contact telephone number;

accurate curie content and volume of material; and appropriate waste classification, transport index, and UN number for the following radioactive shipments:

- LW 13-18; UN3321, LSA-II, one 21-300 liner of dewatered bead resin to Energy Solution LLC, Clive Utah;
- LW 13-38; UN3321, LSA-II, 40'-seavan containing dry active waste to Energy Solution Bear Creek, Oak Ridge, Tennessee;
- LW 14-01; PL-21-300 FR liner containing bead resin waste in 21-300 cask to Energy Solution LLC, Clive Utah;
- LM 14-089; UN2910, limited quantity of material containing pail of samples to Teledyne Brown, Knoxville, Tennessee; and
- LM 13-105; UN2912, LSA-I containing SRV in metal container to NSW Technologies, Spartanburg, South Carolina.

Additionally, the inspectors assessed whether the shipment placarding was consistent with the information in the shipping documentation.

b. Findings

No findings were identified.

.7 Identification and Resolution of Problems (02.07)

a. Inspection Scope

The inspectors assessed whether problems associated with radioactive waste processing, handling, storage, and transportation, were being identified by the licensee at an appropriate threshold, were properly characterized, and were properly addressed for resolution in the licensee CAP. Additionally, the inspectors evaluated whether the corrective actions were appropriate for a selected sample of problems documented by the licensee that involve radioactive waste processing, handling, storage, and transportation.

The inspectors reviewed results of selected audits performed since the last inspection of this program and evaluated the adequacy of the licensee's corrective actions for issues identified during those audits.

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 Safety System Functional Failures

###### a. Inspection Scope

The inspectors sampled licensee submittals for the Safety System Functional Failures Performance Indicator (PI) for Units 1 and 2 from the fourth quarter 2013 through the third quarter 2014. To determine the accuracy of the PI data reported, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, and NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73," definitions and guidance, were used. The inspectors reviewed the licensee's operator narrative logs, operability assessments, maintenance rule records, maintenance WOs, issue reports, event reports, and NRC Integrated Inspection Reports for October 2013 through September 2014 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 safety system functional failures samples as defined in IP 71151-05.

###### b. Findings

No findings were identified.

##### .2 Mitigating Systems Performance Index—Heat Removal System

###### a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index (MSPI) - Heat Removal System PI for Units 1 and 2 from the fourth quarter 2013 through the second quarter 2014. To determine the accuracy of the PI data reported, PI definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, MSPI derivation reports, and NRC Integrated Inspection Reports for October 2013 through June 2014 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI heat removal system samples as defined in IP 71151–05.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index—Cooling Water Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI - Cooling Water Systems PI for Units 1 and 2 from the fourth quarter 2013 through the second quarter 2014. To determine the accuracy of the PI data reported, PI definitions and guidance contained in NEI Document 99–02, “Regulatory Assessment Performance Indicator Guideline,” Revision 7, were used. The inspectors reviewed the licensee’s operator narrative logs, issue reports, MSPI derivation reports, event reports, and NRC Integrated Inspection Reports for October 2013 through June 2014 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee’s issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI cooling water system samples as defined in IP 71151–05.

b. Findings

No findings were identified.

.4 Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors sampled licensee submittals for the reactor coolant system (RCS) specific activity PI for LaSalle County Station Units 1 and 2 from the second quarter 2013 through the second quarter 2014. The inspectors used PI definitions and guidance contained in NEI Document 99-02, “Regulatory Assessment Performance Indicator Guideline,” Revision 7, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee’s RCS chemistry samples, TS requirements, issue reports, event reports, and NRC Integrated Inspection Reports to validate the accuracy of the submittals. The inspectors also reviewed the licensee’s issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. In addition to record reviews, the inspectors observed a chemistry technician obtain and analyze a RCS sample. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two RCS specific activity samples as defined in IP 71151–05.

b. Findings

No findings were identified.

.5 Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspectors sampled licensee submittals for the Occupational Exposure Control Effectiveness PI from the third quarter 2013 through the third quarter 2014. The inspectors used PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee's assessment of the PI for occupational radiation safety to determine if the indicator related data were adequately assessed and reported. To assess the adequacy of the licensee's PI data collection and analyses, the inspectors discussed with RP staff the scope and breadth of its data review and the results of those reviews. The inspectors independently reviewed electronic personal dosimetry dose rate and accumulated dose alarms and dose reports and the dose assignments for any intakes that occurred during the time period reviewed to determine if there were potentially unrecognized occurrences. The inspectors also conducted walk-downs of numerous locked high and very high radiation area entrances to determine the adequacy of the controls in place for these areas. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors sampled licensee submittals for the radiological effluent technical specification (RETS)/ODCM radiological effluent occurrences PI from the second quarter 2013 through the second quarter 2014. The inspectors used PI definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee's issue report database and selected individual reports generated since this indicator was last reviewed to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have impacted offsite dose. The inspectors reviewed gaseous effluent summary data and the results of associated offsite dose calculations for selected dates to determine if indicator results were accurately reported. The inspectors also reviewed the licensee's methods for quantifying gaseous and liquid effluents and determining effluent dose. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

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

.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 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

To assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, 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 Semiannual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 4OA2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the 6-month period of July 2014 through December 2014, although some examples expanded beyond those dates where the scope of the trend warranted.

The review also included issues documented outside of the normal CAP in major equipment problem lists; repetitive and/or rework maintenance lists; departmental problem/challenges lists; system health reports; quality assurance audit/surveillance reports; self-assessment reports; and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

This review constituted a single semiannual trend inspection sample as defined in IP 71152-05.

b. Findings

No findings were identified.

.4 Selected Issue Followup Inspection: Unit 2 Reactor Recirculation Pump Trends

a. Inspection Scope

During a review of items entered in the licensee's CAP, the inspectors selected for additional review a CAP item documenting an Adverse Condition Monitoring Plan and Operational Decision Making documents associated with Issue Report "Unit 2 Reactor Recirculation Delta Temperature Trip for 2A Reactor Recirculation Pump," AR 02424901. The inspectors reviewed associated documentation and interviewed licensee Operations Department staff to understand the current state of the issue and to ascertain the specific course of action that the licensee has planned to address current or future perturbations.

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

b. Findings

No findings were identified.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)

.1 (Closed) Licensee Event Report (LER) 05000373/374 2013-007: Secondary Containment Inoperable Due to Interlock Doors Open

On October 22, 2013, both Units 1 and 2 were in Mode 1 at 100 percent power when it was reported that both air-lock doors on the Unit 1 Reactor Building 710' elevation between the Chemistry Hot Lab and the Reactor Building were open at the same time for approximately 10 seconds. While both interlock doors were open, TS Surveillance Requirement 3.6.4.1.2 ("Verify one secondary containment access door in each access opening is closed") was not met. Secondary containment was declared inoperable for the time that both interlock doors were open.

The cause of the event was a less than robust design of the door interlock assembly. The licensee's troubleshooting found that the mounting fasteners that secure the entire locking assembly to the frame of the door were loose, which prevented the electro-mechanical solenoid operated bolt from engaging properly. This malfunction was similar to a previous occurrence on February 28, 2013.

Corrective actions from the previous occurrence to identify, procure, and install a more robust interlock assembly design were still in progress at the time of the event. Documents reviewed are listed in the Attachment to this report. This LER is closed.

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

.2 (Closed) LER 05000373/374 2014-001: Secondary Containment Inoperable Due to Interlock Doors Open

On February 18, 2014, Unit 1 was in Mode 5 with fuel moves in progress during refueling outage L1R15, and Unit 2 was in Mode 1 at full power when it was reported that both air-lock doors of the Unit 2 side Reactor Building 710' elevation between the Unit 2 DG corridor and the Unit 2 Reactor Building were open at the same time for approximately 3 seconds. While both interlock doors were open, TS Surveillance Requirement 3.6.4.1.2 ("Verify one secondary containment access door in each access opening is closed") was not met. Secondary containment was declared inoperable for the time that both interlock doors were open.

The cause of the event was degradation of the door closure mechanism and door frame seal. A contributing cause was a less than robust design of the door interlock assembly. Corrective actions from the previous occurrences to identify, procure, and install a more robust interlock assembly design were still in progress at the time of the event. Additional corrective actions included creating a periodic preventative maintenance task to inspect, tighten, and replace fasteners as necessary. Documents reviewed are listed in the Attachment to this report. This LER is closed.

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

.3 (Closed) LER 05000373 2014-001: Reactor Scram Due to Main Steam Isolation Valve Stem-Disc Separation

- a. Inspection Scope: This event occurred on August 5, 2014, when Unit 2 automatically scrammed. The inboard 2C MSIV showed dual indication rather than full closed, due to

the valve stem disc separation from the stem, which allowed the main disc to drop into the main steam flow path. The licensee reported the cause of the stem-disc separation to be fretting wear attributable to marginal design. The licensee's root cause of the event was determined to be a 2008 deferral decision of manufacturer upgrade to prevent the failure. The corrective actions included installing the upgrade on all MSIVs on both units and reviewing previous deferral decisions.

This event follow-up review constituted one sample as defined in IP 71153–05.

b. Findings

Inappropriate Instructions Led to Failure of MSIV

Introduction: A finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed for the licensee's failure to establish instructions with acceptance criteria that were appropriate to the circumstances for the MSIV inspections. These inspections were performed as a result of industry OE that revealed a potential failure mechanism applicable to LaSalle's MSIV make/model. Specifically, the acceptance criteria did not contain instructions for identifying the loss of pretension on the stem-to-pilot-disc, which was the failure mechanism reported in the industry OE as being indicative of impending MSIV failure.

Description: On August 5, 2014, the Unit 2 'C' inboard MSIV failed shut due to a stem to-disc separation. Inspectors reviewed the circumstances leading to the failure as well as the licensee's root cause evaluation in AR 1689555 and determined that EC 340595, "MSIV Inspection & Acceptance Criteria," was deficient. This EC was created in response to 2003 industry OE for the same failure mechanism (loss of adequate thread loading on the shaft-to-pilot-disc) at Nine Mile Point Unit 2, with the purpose of establishing inspection acceptance criteria to determine if the OE contained in the Nine Mile Point LER and Part 21 Notification applied to LaSalle.

LaSalle's MSIVs happened to be of the exact same make and model (Rockwell 26" Wye-Pattern Globe Valve Model 1612JMMNTY) as those reported to have failed in LER 05000410/2002-004-00 by Nine Mile Point Unit 2. In that OE document, Nine Mile Point reported that the cause of the failure was a deficient MSIV design that did not ensure the proper stem-to-disc thread loading. The deficient design resulted in the mechanical separation at the stem-to-disc threaded and pinned connection due to vibration. Since LaSalle had the same valve design, the OE was directly applicable.

Engineering evaluation EC 340595 was created specifically to provide a method of determining the applicability of this OE; however, the inspectors noted that the acceptance criteria created by the EC contained no guidance for identifying or dispositioning the actual failure mechanism reported in the OE. Work order reviews showed that two of the five MSIVs inspected under the EC at LaSalle at that time actually displayed evidence of a loss of pretension, but since the acceptance criteria—as written—were satisfied, the MSIVs passed the inspections. In 2007, the pending MSIV rebuild plans were reviewed and ultimately deferred based upon the false-negative inspection results. It was the conclusion of the inspectors that these deferrals directly led to the August 5, 2014, MSIV failure for Unit 2.

Analysis: The inspectors determined that the failure to establish instructions that were appropriate to the circumstances for inspections of safety-related MSIVs, i.e., activities affecting quality, was contrary to 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," and was a performance deficiency.

Using IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, the inspectors determined that the performance deficiency was more than minor because it was associated with the Initiating Events Cornerstone attribute of procedure quality and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors used IMC 0609, Appendix A, "Significance Determination for Findings At-Power," dated June 19, 2012, to evaluate the finding. Since the valve failure caused a reactor scram and loss of normal heat sink (due to the Group I MSIV isolation), a detailed risk evaluation was required. The RIII SRAs performed a detailed risk evaluation using the NRC's Standardized Plant Analysis Risk model for LaSalle, version 8.24. The SRAs set the initiating event frequency for a loss of condenser heat sink to 1.0, to reflect the fact that the finding caused the event to occur. The SRAs further assumed that operators could recover the main condenser after approximately 2 hours by resetting the Group I isolation signal and re-opening an MSIV. The SRAs assigned a screening value of 0.1 to the human error probability for failing to recover the condenser in the long-term. The conditional core damage probability estimate given these assumptions was  $8.4E-7$ , which represents a finding of very low safety significance, or Green. The dominant sequence involves a loss of condenser heat sink, followed by the failure of the main feedwater, high pressure core spray, and RCIC systems, and the failure to depressurize and use low pressure systems.

Enforcement: Title 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, and drawings of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, and drawings.

Contrary to the above, on January 25, 2003, Engineering Evaluation EC 340595, "MSIV Inspection & Acceptance Criteria," was created by the licensee with acceptance criteria that were inappropriate to the circumstances. Specifically, EC 340595, an activity affecting quality, did not contain acceptance criteria that would have identified the existence of the failure mechanism reported to the industry in Part 21 report/LER 05000410/2002-004-00 issued on January 7, 2003, i.e., a loss of proper stem-to-disc thread loading. Since EC 340595 was created specifically to address the issues disseminated in the aforementioned Part 21 report, but failed to do so, EC 340595 was determined to be inappropriate to the circumstances.

As corrective actions, the licensee has rebuilt all MSIVs onsite with a different design that is not susceptible to the loss of thread loading/pre-tension failure mechanism. Additionally, the licensee performed a root cause evaluation.

This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy. The violation was entered into the licensee's CAP as AR 01689555, "Inadvertent Closure of Main Steam Isolation Valve 2B21-F022C" (NCV 05000373/2014005-02; 05000374/2014005-02; Inappropriate Instructions Led to Failure of MSIV).

.4 (Closed) LER 05000373 2014-002: Unit 1 Division 3 Ventilation Failure

This event occurred on March 29, 2014, when a hydramotor pump bearing failed in the core standby cooling system (CSCS) ventilation return fan outlet damper. The Division 3 CSCS pump room, switchgear room and battery room ventilation failed; therefore heat could not be removed from the rooms. As a result, the HPCS system was declared inoperable. The corrective action for the event was replacement of the hydramotor for the damper. Documents reviewed are listed in the Attachment to this report. This LER is closed.

This event follow-up review constituted one sample as defined in IP 71153–05.

.5 (Closed) LER 05000373/374 2014-003: Secondary Containment Inoperable Due to Interlock Doors Open

On April 30, 2014, Unit 1 was in Mode 1 at full power and Unit 2 was in Mode 5 with fuel moves in progress for maintenance outage L2M17 when it was reported that both airlock doors on the Unit 2 Auxiliary Building 710' elevation between the Chemistry Hot Lab and the Reactor Building were open at the same time for approximately 5 seconds. While both interlock doors were open, TS Surveillance Requirement 3.6.4.1.2 ("Verify one secondary containment access door in each access opening is closed") was not met for both Units 1 and 2. Secondary containment was declared inoperable for the time that both interlock doors were open.

The cause of the event was determined to be the incorrect installation of the armature plate. Corrective actions were to reinstall the armature plate with proper tensioning of the mounting bolt and with Loctite applied to the threads. All other susceptible armature plate mountings at LaSalle were inspected and verified for proper torque and use of Loctite. Documents reviewed are listed in the Attachment to this report. This LER is closed.

This event follow-up review constituted one sample as defined in IP 71153–05.

4OA5 Other Activities

.1 Temporary Instruction 2515/190 – Inspection of the Proposed Interim Actions Associated with Near-Term Task Force Recommendation 2.1 Flooding Hazard Evaluations

a. Inspection Scope

Inspectors verified that licensee's interim actions will perform their intended function for flooding mitigation.

The inspectors independently verified that the licensee's proposed interim actions would perform their intended function for flooding mitigation.

- Visual inspection of the flood protection feature was performed if the flood protection feature was relevant. External visual inspection for indications of degradation that would prevent its credited function from being performed was performed.

- Flood protection feature functionality was determined using either visual observation or by review of other documents.

The inspectors verified that issues identified were entered into the licensee's CAP.

These activities constituted the completion of Temporary Instruction (TI) 2515/190, Inspection of the Proposed Interim Actions Associated with Near-Term Task Force Recommendation 2.1 Flooding Hazard Evaluations.

b. Findings and Observations

During the inspection, the inspectors recognized some information within the licensee's analysis that met the threshold for documentation.

There were two current water surface elevations in the current licensing basis. The difference was mainly due to topography and was minor: 710.10 feet MSL (Mean Sea Level) and 710.30 feet MSL. The current plant strategy for addressing exterior flooding was characterized as a passive strategy, i.e., the plant design did not require the installation of water tight barriers or sandbags as a preventative measure. This was due to the original analysis indicating that water surface levels would not rise to a point where flow into safety-related structures was expected.

The reevaluation indicated that water surface levels adjacent to safety-related structures could be as high as 710.83 ft. MSL. Therefore, some water flow into safety-related structures could be expected. The licensee performed an evaluation of this issue while maintaining a passive strategy, i.e., no credit was taken for actions by licensee personnel that would have reduced the flow of water into safety-related structures. The evaluation, EC 399280, "Beyond Design Basis Flooding Analysis for NRC Fukushima NTF Recommendation 2.1 – Plant LIP [Local Intense Precipitation] Ingress," identified the potential for the loss of some safety-related equipment due to water intrusion. The analysis concluded that the loss of this equipment would not prevent the licensee from shutting down both reactors, if needed, or from maintaining the reactors in a safe shutdown condition.

The inspectors reviewed procedures OP-AA-108-111-1001, "Severe Weather and Natural Disaster Guidelines," and LOA-FLD-001, "Flooding," and noted that both of these procedures directed licensee staff to mitigate water flow into the building by the use of sandbags, rubber dikes, duct seals, etc. Materials for performing these activities were onsite and licensee staff was familiar with their use.

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On January 7, 2015, the inspectors presented the inspection results to Mr. P. Karaba, Site Vice-President, 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:

- the annual review of Emergency Action Level and Emergency Plan changes with the licensee's Emergency Preparedness Coordinator, Mr. J. Hughes, via telephone on December 1, 2014; and
- inspection results for the areas of radiological hazard assessment and exposure controls; radioactive solid waste processing and radioactive material handling, storage, and transportation; and RCS specific activity, occupational exposure control effectiveness, and RETS/ODCM radiological effluent occurrences PI verification with Mr. P. Karaba, Site Vice-President, on October 3, 2014.

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

P. Karaba, Site Vice-President  
H. Vinyard, Plant Manager  
J. Kowalski, Engineering Manager  
K. Aleshire, Corporate Emergency Preparedness Manager  
V. Cwietniewicz, Corporate Emergency Preparedness Manager  
M. Jesse, Corporate Regulatory Assurance Manager  
G. Ford, Regulatory Assurance Manager  
J. Houston, Nuclear Oversight Manager  
J. Moser, Radiation Protection Manager  
M. Hayworth, Emergency Preparedness Manager  
J. Hughes, Emergency Preparedness Coordinator  
T. Dean, Operations Training Manager  
D. Wright, NRC Examination Coordinator  
L. Blunk, Regulatory Assurance  
S. Shields, Regulatory Assurance  
B. Hilton, Design Manager  
A. Baker, Dosimetry Specialist  
J. Bauer, Training Director  
T. Dean, Operations Training Manager

#### Nuclear Regulatory Commission

M. Kunowski, Chief, Reactor Projects Branch 5

## LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

### Opened

05000374/2014005-01	NCV	Scaffold Installed Without Engineering Review (Section 1R05)
05000373/2014005-02; 05000374/2014005-02	NCV	Inappropriate Instructions Led to Failure of MSIV (Section 4OA3)
2515/190	TI	Inspection of the Proposed Interim Actions Associated with Near-Term Task Force Recommendation 2.1 Flooding Hazard Evaluations (Section 4OA5)

### Closed

05000374/2014005-01	NCV	Scaffold Installed Without Engineering Review (Section 1R05)
05000373/374 2013-007	LER	Secondary Containment Inoperable Due to Interlock Doors Open (Section 4OA3)
05000373/374 2014-001	LER	Secondary Containment Inoperable Due to Interlock Doors Open (Section 4OA3)
05000373 2014-001	LER	Reactor Scram Due to Main Steam Isolation Valve Stem-Disc Separation (Section 4OA3)
05000373/2014005-02; 05000374/2014005-02	NCV	Inappropriate Instructions Led to Failure of MSIV (Section 4OA3)
05000373 2014-002	LER	Unit 1 Division 3 Ventilation Failure (Section 4OA3)
05000373/374 2014-003	LER	Secondary Containment Inoperable Due to Interlock Doors Open (Section 4OA3)
2515/190	TI	Inspection of the Proposed Interim Actions Associated with Near-Term Task Force Recommendation 2.1 Flooding Hazard Evaluations (Section 4OA5)

## 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.

### 1R04 Equipment Alignment

#### Procedures:

- OP-LA-108-117-1000; LaSalle Protected Equipment Program; Revision 3

#### Figures and Drawings:

- LOP-HP-02E; Unit 2 High Pressure Core Spray Mechanical Checklist; Revision 18
- LOP-HP-02M; Unit 2 High Pressure Core Spray Electrical Checklist; Revision 5
- M-145; P & ID Standby Liquid Control System; Revision AF

#### Miscellaneous:

- LaSalle CheckList Search "SBLC"; 8/27/2014

### 1R05 Fire Protection

#### Procedures:

- MA-AA-716-025; Scaffold Installation, Modification, and Removal Request Process; Revision 9
- MA-AA-796-024; Scaffold Installation, Inspection, and Removal; Revision 9
- OP-AA-201-008; Pre-Fire Plan Manual; Revision 3
- OP-AA-201-009; Control of Transient Combustible Material; Revision 13
- OP-AA-201-003, Fire Drill Performance; Revision 13, (Attachment 1)

#### Action Requests:

- 2391331; Smoke Detector 001-052 in the SSB Spontaneously Alarmed
- 2407135; NRC ID – Step Off Pad, Frame and Tape Need Evaluated
- 2407322; Cart Found Not Secured in U2 RB 673' RCIC Corner Room
- 2407748; NRC Question for Seismic Scaffold

#### Miscellaneous:

- Fire Zone 4D1; LaSalle County Generating Station Pre Fire Plan; Aux. Bldg. 749'0" Elev. U1 Cable Spreading Room
- LaSalle County Generating Station Pre-Fire Plan, Lake Screen House 714' and 683'; Revision 0
- LaSalle County Generating Station Pre-Fire Plan, Unit 1, Elevation 843'-6", Refuel Floor, Fire Zone FA1 (South)
- LaSalle County Generating Station Pre-Fire Plan, Unit 2, Elevation 673'-4", LPCS/RCIC Pump Cubicle, Fire Zone 314
- LaSalle County Power Station Fire Drill Scenario No. 83, U1 Cable Spreading Room; November 17, 2014
- NES-MS-04.1 Standard; Seismic Prequalified Scaffolds; Revision 6

### 1R06 Flooding

#### Procedures:

- LOA-WL-001; River Screen House and Lake Abnormal; Revision 10
- OP-AA-103-102; Watch-Standing Practices; Revision 13
- OP-AA-101-111-1001; Operations Standards and Expectations; Revision 15

Action Requests:

- 2415231; Missed Opportunity to Participate in Drill

Operability Evaluation:

- OE97040; Lake Level High, Potential for Flooding; 3/13/1997
- OE97041; Lake Level High, Potential for Flooding; 3/12/1997
- OE97042; Lake Level High, Potential for Flooding; 3/13/1997

Miscellaneous:

- EP Memo from K. Rusley/J. Smith: Designation of NRC DEP Opportunities during LORT Cycle 12-3; 5/3/2012
- Exelon Generation Letter from K. Rusley/J. Smith: Designation of NRC DEP Opportunity for Mark Zickefoose during LORT Cycle 12-4; 7/23/2012

1R11 Licensed Operator Regualification Program

Working Documents:

- OBE ESG-207; Out of the Box Evaluation; November 11, 2014

1R12 Maintenance Effectiveness

Miscellaneous:

- Periodic Assessment of the Maintenance Rule Program; July 2012 – June 2014

1R13 Maintenance Risk Assessments and Emergent Work Control

Procedures:

- WC-AA-101; On-Line Work Control Process; Revision 24
- WC-AA-101-1006; On-Line Risk Management and Assessment; Revision 1

Action Requests:

- 2430468; 2B EDG CWP Casing Leak

Working Documents:

- LOS-DG-M2; 2A Diesel Generator Idle Start; Revision 91

Miscellaneous:

- NEI 99-02; Nuclear Energy Institute, Regulatory Assessment Performance Indicator Guideline; 8/31/2013; Revision 7
- NUMARC 93-01; Nuclear Energy Institute, Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants; Revision 2
- RG 1.160; Regulatory Guide, Monitoring the Effectiveness of Maintenance at Nuclear Power Plants; Revision 3

1R15 Operability Determinations and Functional Assessments

Procedures:

- EQ-LS-19; EC 338359; EQ Life of MSIV Limit Switch; Revision 13

- LOS-AA-S201; Unit 2 Shiftly Surveillance; Revision 89
- LOS-RP-Q2; Turbine Stop Valve Scram and EOC-RPT Functional Test; Revision 21
- OP-AA-108-115; Operability Determinations (CM-1); Revision 15
- OP-AA-108-115-1002; Supplemental Consideration for On-Shift Immediate Operability Determinations (CM-1)

Action Requests:

- 1520429; 2B RHR Service Water Leak
- 1694730; U2 "D" IB MSIV Limit Switch Temp Exceeded Shiftly RDS Limit
- 2394400; B RHR Pump Tripped During LP-RH-07
- 2394555; IST Relief Valve Scope Expansion
- 2394557; IST Relief Valve Scope Expansion 1DG055A
- 2394558; IST Relief Valve Scope Expansion 1DG055B
- 2394561; IST Relief Valve Scope Expansion 1E22-F369A
- 2394562; IST Relief Valve Scope Expansion 1E22-F370A
- 2394563; IST Relief Valve Scope Expansion 1E22-F370B
- 2394565; IST Relief Valve Scope Expansion 2DG055A
- 2394567; IST Relief Valve Scope Expansion 2DG055B
- 2394568; IST Relief Valve Scope Expansion 2E22-F369B
- 2394569; IST Relief Valve Scope Expansion 2E22-F370A
- 2394571; IST Relief Valve Scope Expansion 2E22-F370B
- 2394946; Drywell Spray Header Nozzle with Red Protective Cover Installed
- 2407052; Emergent Dose Request for Unit 2 Outboard MSIV Room
- 2407399; Tech Spec Shiftly Surveillance Out of Spec Temperature
- 2420487; 2C71A-K010G Relay Did Not Open During LOS-RP-Q2
- 2422279; NRC Questions Regarding U2 TSV Testing
- 2694730; U2 "D" Inboard MSIV Limit Switch Temperature Exceeded Shiftly Rounds Limit
- 2429128; Leak Identified at the Base of the Weld

Figures and Drawings:

- 1E-2-423AC; Schematic Diagram Primary Containment & Reactor Vessel Isolation System "PC" (B21H) Part 3; Revision U
- 1E-2-423AD; Schematic Diagram Primary Containment & Reactor Vessel Isolation System "PC" (B21H) Part 3; Revision AS
- 1E-2-423AH; Schematic Diagram Primary Containment & Reactor Vessel Isolation System "PC" (B21H) Part 3; Revision R
- 1E-1-4622AE; Wiring Diagram Auto Depressurization System Valve 1B21-F013; Revision S
- Photo, C SRV; *unlabeled, undated*
- 1E-1-3565; Electrical Installation Reactor Building Partial Plan Elevation 777' 11" Containment; Revision G
- 1E-1-3571; Electrical Installation Reactor Building Containment Sections; Revision K
- 2RH.21 J; Sheet 1; Weld, Seismic Line, Non-Safety Related Instrumentation
- M-142; P & ID Residual Heat Removal System (RHRS); Revs. AY, AD
- M-839; Residual Heat Removal Piping; Revs. AT, AW, AF, AG
- M-939; Residual Heat Removal Piping; Revs. AF, AH, AE, Z
- M13-40; Sheet 20,

Working Documents:

- AR 2394400; Event Report, B RHR Pump Tripped During LP-RH-07; 10/12/2014
- WO 1794955-01; Doc. 1A; Install Temporary Non-Intrusive Leak Repair on Pipe 2RH83AB-20
- WO 1656782 Status Report; WR Required for Extent of Condition on RH (CSCS) Piping

- WO 1646739 Status Report; Remove TCCP 2RH83AB-20" Line Reinforcing Pad

Operability Evaluations:

- EC 364490; Evaluation of Qualified Service Life of Unit 2 MSIV Inboard Limit Switches; Revision 0
- EC 380395; Evaluation of Qualified Service Life of Unit 1 and 2 MSIV Inboard Limit Switches; Revision 0
- OE 14-001; Legacy Valve Modeling Error in RHR Piping Design Analysis, IR 2396034; Revision 000

Miscellaneous:

- Binder Eq-LS-019; Namco Control Limit Switch EA740 Series, Tab C, Justification and Analysis; Revs. 14, 15, and 16
- DS-RH-01-LS; Sargent & Lundy Engineers, Residual Heat Removal System Piping Design Specification; Revision 13
- NES-MS-03.2; Nuclear Engineering Standard: Evaluation of Discrepant Piping and Support Systems; Revision 6
- AR 2420487; Event Report: Relay 2C71A-K10G Failed to De-Energize During LOS-RP-Q2

1R19 Post-Maintenance Testing

Procedures:

- OP-AA-108-106; Equipment Return to Service; Revision 4

Action Requests:

- 2426000; 1C CW Pump Shows Motor Field Amps When Pump Secured

Working Documents:

- WO 176784-01; LOS-RP-Q3 U-1 MSIV's Att. 1A; 10/17/2014
- WO 1714238-01; OP LOS-PC-Q2 U-1 MSIV; 10/17/2014
- WO 515534-07; Replace Old MSIV Stem/Disc with New Design; 9/22/2014
- WO 515536-07; Replace Old MSIV Stem/Disc with New Design; 9/22/2014
- WO 515536-09; Replace Old MSIV Stem/Disc with New Design; 10/18/2014
- WO 515536-16; Replace Old MSIV Stem/Disc with New Design; 10/18/2014
- WO 515536-17; Replace Old MSIV Stem/Disc with New Design; 10/08/2014
- WO 515537-07; Replace Old MSIV Stem/Disc with New Design; 9/22/2014

1R20 Outage Activities

Procedures:

- LGP-1-1; Normal Unit Startup; Revision 109
- LGP-2-1; Normal Unit Shutdown; Revision 103

Figures and Drawings:

- M-55; P & ID Main Steam; Revision Y
- M-80; P & ID Turbine Building Equipment Drains; Revision AC

Miscellaneous:

- 2396712; Unapproved Chemical Found (*sic*) in U1 RB 740 OB MSIV Room
- 2397569; 1C SRV Flex Conduit Issue
- 2397581; NRC ID'D: U1 Drywell Closeout From L1M21
- L1M21 Start-Up PORC 14-021; 10/17/2014

- L1M21 Shutdown Safety Narrative Review; 9/17/2014
- L1M21 Critical Path; 10/2014
- L1M21 Outage Update; 10/15/2014

### 1R22 Surveillance Testing

#### Miscellaneous:

- STI LA-14-005; Surveillance Test Interval Change Frequency of 0 DG Surveillance to 48 Months; Revision 0
- Tech Spec Surveillance; Unit 1; LPCS Run, LOS-LP-Q1 Att. 1A; 12/12/2014
- Tech Spec Surveillance; Unit #0; U1 Sec Cont (VR) Dampers LOS-CS-Q1 Att. 1A; 12/3/2014
- Tech Spec Surveillance; Unit #0; VR Damper Pits LOS-CS-Q1 Att. 1B; 12/10/2014
- Tech Spec Surveillance; Unit #0; Sec Cont VR Damper LOS-CS-Q1 Att. 2A; 12/18/2014

### 1EP4 Emergency Action Level and Emergency Plan Changes

#### Procedures:

- EP-AA-1000; Exelon Nuclear Standardized Radiological Emergency Plan; Revs. 24 and 25
- EP-AA-1005; Radiological Emergency Plan Annex for LaSalle Station; Revs. 36 and 37
- EP-AA-110-200; Dose Assessment; Revs. 4, 5, 6, and 7
- EP-AA-110-200-F-01; Dose Assessment Input Form; Revision B
- EP-AA-110-201-F-01; On-Shift Dose Assessment Input Sheet; Revision B
- EP-AA-120-F-01; Core Damage Assessment BWR; Revs. 9 and 10

### 1EP6 Drill Evaluation

#### Action Requests:

- 2419765; During LORT Simulator Training, the Simulator Froze

### 2RS1 Radiological Hazard Assessment and Exposure Controls

#### Procedures:

- LRP-6021-30; Power Sensitive Entries; Revision 3
- RP-AA-460; Control for High and Locked High Radiation Areas; Revision 26
- RP-AA-460-001; Controls for Very High Radiation Areas; Revision 5
- RP-AA-460-003; Access to HRAs/LHRAs/VHRAs and Contaminated Areas in Response to a Potential or Actual Emergency; Revision 7
- RP-AA-460-1006; Controls for the Repair or Replacement of In-Core Detectors and Associated Components; Revision 2
- RP-AA-503; Unconditional Release Survey Method; Revision 8
- RP-LA-1001; Radiation Protection Technician Coverage Expectations While Supporting Draining of Refuel Floor Systems and Flushing Drain Lines; Revision 0
- RP-LA-300-1007; Radiological Controls for Draining /Flushing System Piping; Revision 2

#### Action Reports:

- 1575794; Check-In RP Assessment; 12/11/2013
- 1613716; Workers Enter High Radiation Using Wrong RWP; 2/20/2014
- 1654237; High Radiation Area Discovery Identification; 5/1/2014
- 1735671; Locked High Radiation Area Identified; 9/5/2014

## 2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation

### Procedures:

- LM 13-004; UN2912, LSA-I in A Sealand Containing Contaminated Laundry to Unitech, Morris, IL
- LM 13-096; UN3321, LSA-II Steel Box Containing SRV to NSW Technologies, Spartanburg, SC
- LM 13-105; UN2912, LSA-I Containing SRV in Metal Container to NSW Technologies, Spartanburg, South Carolina
- LM 14-089; UN2910, Limited Quantity of Material Containing Pail of Samples to Teledyne Brown, Knoxville, Tennessee
- LW 13-18; UN3321, LSA-II, One 21-300 Liner of Dewatered Bead Resin to Energy Solution LLC, Clive Utah
- LW 13-38; UN3321, LSA-II, 40' Seavan Containing Dry Active Waste (DAW) to Energy Solution Bear Creek, Oak Ridge, Tennessee
- LW 14-01; PL-21-300 FR Liner Containing Bead Resin Waste in 21-300 Cask to Energy Solution LLC, Clive Utah
- LW 14-13; UN3321, LSA-II Seavan Containing DAW to Energy Solutions at Bear Creek, Oak Ridge, TN
- RP-AA-600; Radioactive Material / Waste Shipments; Revision 12
- RP-AA-600-1007; Radioactive Waste Shipment to Energy Solutions' Clive Utah, Disposal Facility Bulk Facility; Revision 7
- RP-AA-600-1011; Use and Operation of WMG Software for Gross Gamma Characterization of Shipping Paperwork; Revision 3
- RP-AA-600-1013; Use and Operation of WMG Software RAMSHP; Revision 2
- RP-AA-605; 10 CFR 61 Programs; Revision 6
- RP-LA-605-1001; Trending for Shift in Scaling Factors; Revision 3
- Trending for Shift in Scaling Factors from First Quarter of 2012 through the Fourth Quarter of 2013 Data

### Action Reports:

- 01473820; Arriving Exclusive Use LSA-II Conveyance Without Rad Placard; 2/11/13
- 01486692; Arrival Limited Quantity UN2910 Package Exceeds 0.5 mR/hr; 3/12/13
- 01552044; Shepherd Calibration Source Reload Vendor Shipping Critique; 8/28/13
- 01554670; Shepherd Source Replacement Post-Job Review; 8/29/13
- 01585068; Arrival Rad Package Did Not Contain UN Number on the Outside of the Package; 11/13/13
- 02390458; NRC Observation During Radwaste Processing, RAM and Shipping Inspection; 10/3/14

## 4OA1 Performance Indicator Verification

### Procedures:

- CY-LA-110-202; 1(2)PL14J Reactor Panel Sampling; Revision 7
- LS-AA-2090; Monthly Data Elements for NRC Reactor Coolant System (RCS) Specific Activity; March 2013 through August 2014
- LS-AA-2140; Monthly Data Elements for NRC Occupational Exposure Control Effectiveness; Revision 5; April 2013 through September 2014
- LS-AA-2150; Monthly Data Elements for RETS/ODCM Radiological Effluent Occurrences; April 2013 through August 2014

Licensee Event Reports:

- Licensee Event Report 2014-002-00 Unit 1 Division 3 Ventilation Failure; 3/29/2014

Miscellaneous:

- SSFF; NRR Oversight Safety Systems Functional Failures Charts, Units 1 and 2; 4<sup>th</sup> Qtr. 2012 through 3<sup>rd</sup> Qtr. 2014

4OA2 Identification and Resolution of Problems

Procedures:

- LOP-FW-16; Rx Recirc Alarms (*chart of required operator actions*); Revision 31
- LOA-RR-201; Recirculation; Revision 34

Action Requests:

- 1271383; RM-RR Loop Divergence Alarms During Ramp on U2
- 1631712; 10 CFR PT 21 Notification of Deviation Moore 535 Single Lo
- 1666510; Reconsiderer W/O Downgrades
- 1671643; 10 CFR Part 21 2014-36-00 Nelson Deformed Bars
- 1671647; 10 CFR Part 21 2014-37-00 Defect Id'd in Flwsrv/Vernon Pumps
- 1674620; 10CFR Part 21 Product Advisory Model 288A/289A Diff Switch
- 1687690; 10CFR Part 21 EN 50291 – Fisher Controls Incorrect Vlv Solen
- 1687694; 10 CFR Part 21 EN 50299 – Defective SOR Press / Temper Switch
- 1687698; 10 CFR Part 21 EN 49908 Update – GEH ASCO SSPVS
- 1687701; 10 CFR Part 21 EN 50284 Velan Two-Inch Bonnet Defects
- 1692963; 10 CFR PT 21 EN 50331 Temperature SW Set Pts Out of Cal
- 1692965; 10 CFR PT 21 EN 50336 S/R Valves Assembled W NSR Levers
- 1692966; 10 CFR PT 21 EN 50359 Incorrect Industrial Irradiator Dose
- 1692969; 10 CFR PT 21 Vendor 2014-48-00. Assembly Errs Dur BKR Refur
- 1692971; 10 CFR PT 21 Vendor 2014-49-00. RX Clint PMP Turn Vane Bolts
- 1692973; 10 CFR PT 21 Vendor Notice 2013-68-03. KCR-13 Battery Jars
- 1692976; 10 CFR PT 21 VN 2014-11-01. Unseating Valve Spring on SSPV
- 1692978; 10 CFR PT 21 VN 2014-40-01. Welding Material Nonconformance
- 1693402; 10 CFR Part 21 Notification – EN 49370, 710DU Trip Units
- 1695158; IEMA ID – Cable Tray Lid Not Installed
- 1697085; Part 21 Backlog Identified and Corrected at LaSalle Station
- 2383444; 10 CFR Part 21 EN 50371 ABB K-line Circuit Breaker Latch
- 2384999; IEMA Identified Cable Tray Cover Not Installed
- 2384999; IEMA Identified Cable Tray Cover Not Installed
- 2385782; IEMA ID – Cable Tray Cover Not Installed
- 2387762; IDNS Identified Cable Tray With No Cover
- 2387774; IEMA Identified Cable Tray With No Cover
- 2388686; IEMA ID – Cable Tray Cover Not Installed
- 2390097; 10 CFR Part 21 Notice of C&D Batteries Installed at LAS
- 2397474; Set Screw For Timing Adjustment Broken on 1D Inboard MSIV
- 2402633; PCE Painter Unable to Exit RCA
- 2402634; PCE Painter Unable to Exit RCA
- 2402635; PCE Painter Unable to Exit RCA
- 2402637; PCE Painter Unable to Exit RCA
- 2402638; PCE Painter Unable to Exit RCA
- 2409317; U2 RR Delta Temp Trip Switches For 2A RR Pump
- 2385612; Elevated RR Pump Temperature Mitigation Strategies

- 2414563; INPO ID'd: NRC ROP Performance Indicator Data Error
- 2424901; RM – 2A RR FCV Oscillations on HPU Subloop A1
- 1657883; U2 Reactor Recirc Steam Dome A2 Delta Temp Reading High
- 1664938; 2A RVDT Movement Abnormalities Noted During System Trending
- 2422123; EC 399752 Missing Evaluation on CRD System Flow
- 2428288; Delayed Response from the U2 A1 RR Discharge Pressure Ind.
- 2409317; U2 RR Delta Temp Trip Switches for 2A RR Pump

Action Requests Generated from NRC or IEMA Inspection:

- 2387762; IDNS Identified Cable Tray with No Cover
- 2387774; IEMA Identified Cable Tray with No Cover
- 2388686; IEMA ID – Cable Tray Cover Not Installed
- 2390357; NRC Observation of RP-AA-460-003 Content
- 2390458; NRC Observation During RW Processing, RAM, & Ship Inspection
- 2397569; 1C SRV Flex Conduit Issue
- 2397581; NRC Id'd: U1 Drywell Closeout from L1M21
- 2400177; 1C SRV Flex Conduit Inspect/Repair as Required
- 2406288; NRC Identified Inconsistency in LaSalle Fukushima FHRR
- 2407135; NRC ID – Step Off Pad, Frame and Tape Need Evaluated
- 2407748; NRC Question for Seismic Scaffold
- 2411341; IEMA Identified: 1C11-R008 SV Valve Copper Tubing Clamp
- 2411355; IEMA Identified Issue – DCV Solenoid Retaining Clips

Miscellaneous:

- 392.18; National Electrical Code, Article 392 – Cable Trays; 2014
- Chart, *unlabeled*, Locations of Columns and Vertical Riser Drops Missing Slice Guards, Cable-Riser Cover Contact; *undated*
- LaSalle County Generating Station Pre-Fire Plan; Unit 2 Elevation 740'0" General Area & CRD Repair Room, Fire Zone 3F
- LSCS-UFSAR 8.3-28; Containment Electrical Penetration Criteria; Revision 13
- N-EIS-0003; Electrical Installation Standard for Safety Related Cable Tray Systems; Revision 6
- SHIB 01-16-2008; U.S. Dept. of Labor OSHA Safety and Health Information Bulletin: Safely Installing, Maintaining and Inspecting Cable Trays; 2008
- EC 399752; CRD RR Seal Purge Flow Rate Limit Increase Evaluation; Revision 0
- RRF01 Process Overview Screenshot, Unit 2; 12/3/2014
- RRF05 Interlocks for RR Loop A and B Screenshot, Unit 2; 12/3/2014

40A3 Followup of Events and Notices of Enforcement Discretion

Action Requests:

- 2396939; Secondary Containment Inop Due to Pressure Above Tech Spec.

Procedures:

- LGP-2-1; ;Revision 103

Operability Evaluations:

- EC 340595; MSIV Inspection and Acceptance Criteria; 1/2003

Licensee Event Reports:

- Licensee Event Report 2014-002-00 Unit 1 Division 3 Ventilation Failure; 3/29/2014

- Nine Mile Point Unit 2 Licensee Event Report 2002-004-00 Reactor Trip Due to Main Steam Isolation Valve Failure; 11/11/2002

Miscellaneous:

- AR 1689555; Root Cause Investigation: Inadvertent Closure of Main Steam Isolation Valve (MSIV) 2B21-F022C; 9/9/2014

4OA5 Other Activities

Procedures:

- OP-AA-108-111-1001; Severe Weather and Natural Disaster Guidelines; Revision 12
- LOA-FLD-001; Flooding; Revision 16

Action Requests:

- 2406288; NRC Identified Inconsistency in LaSalle Fukushima FHRR
- 776423; Take Local Amperage Reading to Support Decision
- 2397839; Work Order Required for Fukushima Flooding Evaluation 50.54
- 2400974; Fukushima Flooding Evaluation 50.54(F), Rec. 2.1 and Interim
- 2397868; Work Order Required for Fukushima Flooding Evaluation 50.54
- 1570792; Continuation of IR 1341028 Tracking Actions for NRC 50.54(F)

Miscellaneous:

- AR 776423; Action Tracking Status History, Take Local Amperage Reading to Support Decision;
- EC 399280; Beyond Design Basis Flooding Analysis for NRC Fukushima NTTF Recommendation 2.1 – Plant LIP Ingress; Revision 000
- NTTF Recommendation 2.1; Near-Term Task Force Recommendation – Flood Hazard Reevaluation for LaSalle County Station
- Enercon Services Flood Hazard Reevaluation Report in Response to 50.54(f) Information Request; 2/19/2014
- ATI 1570792; Inspection of Existing Sealant on Plant Doors 479, 554, and 508 and Fix as Required; 6/12/2014
- ATI 1570792-44-01; Evaluation of the Effects of Higher Waves and Associated Loads on the Lake Screen House Concrete Structure and CSCS Inlet Concrete Structure from PMF/Surge/Seiche Waves; 6/12/2014
- ATI 1570792-44-02; Identify Unsealed Penetrations up to the Reevaluated Stillwater Elevation to Address Potential Surcharge of Groundwater Levels Due to Increase Stillwater Levels in the Lake; 6/9/2014
- ATI 1570792-44-03; Evaluation of the Hydrostatic Loading on the Power Plant Foundations Using Groundwater Level at the Reevaluated Stillwater Elevation in the Lake; 6/12/2014
- ATI 1570792-44-06; Identify Temporary or Permanent Flood Protection Features; 9/12/2014
- ATI 1570792-44-07; Evaluate the Effects of Ingress of Water from the LIP Event on the Plant; 9/12/2014
- ATI 1570792-44-08; Determine if Additional Doors Need to be Surveyed and Perform Survey if Necessary; 6/12/2014
- Flooding Walkdown Report, AMEC Environment and Infrastructure; In Response to 50.54(f) Information Request Regarding Near-Term Task Force Recommendation 2.3: Flooding; 11/6/2012
- RS-12-164; Exelon Generation Company, LLC's 180-day Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Flooding Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident; 11/29/2012

- RS-13-095; Supplemental Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Flooding Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident; 6/19/2013
- RS-13-254; Supplemental Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Flooding Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident; 11/21/2013
- RS-14-036, TMI-14-013, RA-14-011; Update to Response to NRC 10 CFR 50.54(f) Request for Information Regarding Near-Term Task Force Recommendation 2.3, Flooding – Review of Available Physical Margin (APM) Assessments; 1/31/2014
- RS-14-111; Supplemental Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Flooding Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident; 6/4/2014
- Units 1 and 2 – Flood Hazard Reevaluation Report Interim Action Commitments; 2014
- WO 1006177; Work Task Outline, 2TF03PB Pump Tripping on Thermal During MN CNDR Draining; 4/27/20018
- TI-190 Rec. 2.1 Flooding Reevaluation (*Answers to*) NRC Questions dated 10/27/2014
- TI-190 Rec. 2.1 Flooding Reevaluation (*Answers to*) NRC Questions dated 11/4/2014
- TI-190; (*Answers to*) Questions from NRC Resident Inspector John Robbins; *undated*
- ADAMS ML 12053A340; LaSalle County Station, Units 1 and 2 – Staff Assessment of Flooding Walkdown Report; 6/30/2014

## LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access Management System
AR	Action Request
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CRD	Control Rod Drive
CSCS	Core Standby Cooling System
DG	Diesel Generator
EC	Engineering Change
HPCS	High Pressure Core Spray
IMC	Inspection Manual Chapter
IP	Inspection Procedure
LER	Licensee Event Report
LPCS	Low Pressure Core Spray
MSIV	Main Steam Isolation Valve
MSL	Mean Sea Level
MSPI	Mitigating Systems Performance Index
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OE	Operating Experience
PARS	Publicly Available Records System
PI	Performance Indicator
RCIC	Reactor Core Isolation Cooling
RCS	Reactor Coolant System
RETS	Radiological Effluent Technical Specification
RHR	Residual Heat Removal
RP	Radiation Protection
SBLC	Standby Liquid Control
SRA	Senior Reactor Analyst
SRV	Safety Relief Valve
TI	Temporary Instruction
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
WO	Work Order

B. Hanson

-2-

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Sincerely,

**/RA/**

Michael Kunowski, Chief  
Branch 5  
Division of Reactor Projects

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

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