UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

April 25, 2014

Mr. Michael J. Pacilio
Senior VP, Exelon Generation Co., LLC
President and CNO, Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2
NRC INTEGRATED INSPECTION REPORT 05000373/2014002;
05000374/2014002

Dear Mr. Pacilio:

On March 31, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your LaSalle County Station, Units 1 and 2. On April 1, 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 3 findings of very low safety significance (Green) in this report. These findings involved violations of NRC requirements; 1 of these violations was determined to be Severity Level IV under the traditional enforcement process. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2.a of the Enforcement Policy.

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

Additionally, as we informed you in the most recent NRC integrated inspection report, cross-cutting aspects identified in the last six months of 2013 using the previous terminology were being converted in accordance with the cross-reference in Inspection Manual Chapter (IMC) 0310. Section 4OA5 of the enclosed report documents the conversion of these cross-cutting aspects, which will be evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305 starting with the 2014 mid-cycle assessment review. If you disagree with the cross-cutting aspect assigned, 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.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Michael Kunowski, Chief
Branch 5
Division of Reactor Projects

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

Enclosure:
IR 05000373/2014002; 05000374/2014002
w/Attachment: Supplemental Information

cc w/encl: Distribution via LISTSERV®

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	05000373; 05000374
License Nos:	NPF-11; NPF-18
Report No:	05000373/2014002; 05000374/2014002
Licensee:	Exelon Generation Company, LLC
Facility:	LaSalle County Station, Units 1 and 2
Location:	Marseilles, IL
Dates:	January 1, 2014 – March 31, 2014
Inspectors:	R. Ruiz, Senior Resident Inspector F. Ramírez, Resident Inspector J. Beavers, Acting Resident Inspector J. Cassidy, Senior Health Physicist M. Holmberg, Senior Reactor Inspector R. Schultz, IEMA (Illinois Emergency Management Agency) Resident Inspector
Approved by:	M. Kunowski, Chief Branch 5 Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

Inspection Report (IR) 05000373/2014002, 05000374/2014002; 01/01/2014 – 03/31/2014; LaSalle County Station, Units 1 and 2; Inservice Inspection Activities and Outage Activities.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Three Green findings were identified by the inspectors. The findings were considered non-cited violations (NCVs) of U.S. Nuclear Regulatory Commission (NRC) regulations; one of which was also determined to involve a traditional enforcement Severity Level (SL) IV violation 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 January 1, 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 4.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a finding of very low safety significance (Green) and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," for the licensee's failure to conduct primary containment (drywell) closeout activities in accordance with site procedures. Specifically, during the NRC's drywell closeout inspection, the inspectors identified that the licensee had not secured the reactor shield steel doors around three of the six feedwater system penetrations into the reactor vessel (RV). As a result, the steel doors design function to resist transient pressure loadings within the shield annulus would have been impacted. Licensee corrective actions included securing the reactor shield doors prior to power operation and placing the issue into the corrective action program (CAP).

  The finding was determined to be more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance (Green) because the inspectors qualitatively determined that the finding involved adequate mitigation capability and was not an event that could be characterized as a loss of control. This finding had a cross-cutting aspect in the area of Human Performance, Work Management, because the licensee did not implement a process for controlling and executing work activities such that nuclear safety was the overriding priority (H.5). Specifically, the licensee's process did not ensure that the reactor shield was intact prior to the completion of the drywell closeout procedure. (Section 1R20.1b.(1))

Cornerstone: Barrier Integrity

- Severity Level IV/Green. The inspectors identified a finding of very low safety significance (Green) and an associated Severity Level IV non-cited violation of 10 CFR 50.60, "Acceptance Criteria for Fracture Prevention Measures for Lightwater Nuclear Power Reactors for Normal Operation," for the licensee's failure to conduct a

timely test, evaluation, and report on the material contained in the 120° RV surveillance capsule within one year of capsule withdrawal to validate the RV pressure-temperature (P/T) limits. Specifically, in February 2010, the licensee withdrew the RV capsule at the 120° azimuth but did not report test results until November 2011 and did not report the impact of these results on P/T limits until January 2013. The licensee entered this issue into its CAP as action request (AR) 01598777 and submitted a request for a Technical Specification (TS) amendment with revised P/T curves that reflected the surveillance capsule test results.

This issue was more than minor in accordance because it adversely affected the Barrier Integrity Cornerstone attribute of design control. The finding was determined to be more than minor because, if left uncorrected, the performance deficiency had the potential to lead to a more significant safety concern. Specifically, the failure to conduct a timely test, evaluation, and report on the material in the 120° RV surveillance capsule could have resulted in plant operation in an unacceptable region that would increase the possibility of vessel failure by brittle fracture (similar to pressurized thermal shock event for a pressurized water reactor). A Region III senior reactor analyst performed a detailed risk-evaluation of this finding, yielding a delta risk of 1×10^{-8} per year. Therefore, this finding is of very low safety significance (Green). This violation was similar to an example of a SL IV violation identified in Section 6.9.d.9 of the NRC Enforcement Policy, which identifies an example related to failure to make a required report under 10 CFR 50.72 or 10 CFR 50.73. Because the report timeliness requirements were not met for reporting the 120° RV surveillance capsule results, the NRC did not have the opportunity to review and approve the revised P/T curves prior to the plant exceeding the 21 effective full power years (EFPY) limit for application of the existing NRC approved P/T curves. Therefore, the failure to provide a timely report on this surveillance capsule had the potential to have impeded the regulatory process. Because of the very low risk significance, this issue was considered a SL IV violation. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution (PI&R), Resolution, because the licensee did not take appropriate corrective actions to address safety issues in a timely manner, commensurate with their safety significance (P.3) Specifically, the licensee failed to develop a procedure or process for monitoring the timeliness of surveillance capsule testing, analysis and reporting. (Section 1R08.5b.).

Cornerstones: Mitigating Systems and Barrier Integrity

- Green. The inspectors identified a finding of very low safety significance and associated non-cited violation of TS 5.4.1, “Procedures,” for the licensee’s failure to ensure that activities affecting quality were conducted in accordance with current, approved, revisions of procedures as required by licensee procedure HU-AA-104-101, “Procedure Use and Adherence,” Revision 4. Specifically, on three separate occasions, inspectors identified that work groups were using superseded procedure revisions in the field and that no supervisory review was performed to allow the use of those superseded procedures. The licensee entered this issue into its corrective action program (CAP) as Action Requests (ARs) 01623438 and 01625505, and performed an apparent cause evaluation. Corrective actions included required training and communications for affected work groups, potential procedure revisions. Additionally, the activities in question were reviewed to ensure that the use of the incorrect procedures had no detrimental effect on the system or components.

The finding was determined to be more than minor because, if left uncorrected, the performance deficiency had the potential to become a more significant safety concern. Specifically, failing to ensure that the most up-to-date procedures were used for a given activity affecting quality, or failing to approve a superseded procedure for execution, could lead to a degraded or non-conforming condition if a crucial procedure step had been significantly revised. The finding was determined to be of very low safety significance (Green) because the inspectors qualitatively determined that the finding involved adequate mitigation capability and was not an event that could be characterized as a loss of control. This finding had a cross-cutting aspect in the area of Human Performance, Resources, because the licensee supervisors involved did not ensure that the appropriate procedures were available to the workers and adequate to support nuclear safety (H.1). Specifically, the cognizant supervisors did not obtain copies of the controlling documents from a controlled document set immediately prior to the performance of the tasks. (Section 1R20.1b.(2))

REPORT DETAILS

Summary of Plant Status

Unit 1

The unit began the inspection period operating at full power. On January 11, 2014, power was reduced to approximately 80 percent for a control rod sequence exchange and scram time testing, and was restored to full power the next day. On January 21, Unit 1 began coasting down to refueling outage (RFO) L1R15, which began on February 10, when the unit was disconnected from the grid. Following completion of the outage, the unit was restarted and synchronized to the grid on March 1. Full power was achieved on March 3. On March 16, power was reduced to approximately 75 percent for a control rod sequence exchange and scram time testing, and was restored to full power that same day.

Unit 2

The unit began the inspection period operating at full power. On March 22, 2014, power was reduced to approximately 80 percent for a control rod sequence exchange and scram time testing. Unit 2 was restored to full power later that day.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Readiness for Impending Adverse Weather Condition – Extreme Cold Conditions

a. Inspection Scope

Since extreme cold conditions were forecast in the vicinity of the facility for January 27-29, 2014, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. On January 28, the inspectors walked down all outdoor station transformer areas, the switchyard perimeter, and the independent spent fuel storage installation because their safety-related functions could be affected or required as a result of the extreme cold conditions forecast for the facility. The inspectors observed insulation, heat trace circuits, space heater operation, and weatherized enclosures to ensure operability of affected systems. The inspectors reviewed licensee procedures. The inspectors focused on plant management's actions for implementing the station's procedures for ensuring adequate personnel for safe plant operation and emergency response would be available. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed a partial system walkdown of all divisions of the Unit 1 and Unit 2 125-volts direct current (DC) system, which is a risk-significant system.

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

These activities constituted one equipment alignment sample as defined in IP 71111.04-05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours

a. Inspection Scope

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

- Unit 1 Division I switchgear room and battery room, fire zone 4F1;
- Unit 2 reactor building 761’ elevation, fire zone 3E;
- Unit 1 Division III switchgear room, fire zone 5D1;
- Unit 1 reactor building 820’6” elevation, fire zone 2B1; and
- Unit 2 reactor building 820’6” elevation, fire zone 2B2.

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 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 five quarterly fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

No findings were identified.

1R08 Inservice Inspection Activities (71111.08)

From February 10 through 20, 2014, the inspectors conducted a review of the implementation of the licensee's inservice inspection (inservice inspection--ISI) program for monitoring degradation of the Unit 1 (reactor coolant system--RCS, emergency feedwater systems, risk significant piping and components, and containment systems.

The inspections described in Sections 1R08.1 and 1R08.5 below constituted one ISI activities sample as defined by IP 71111.08.

.1 Piping Systems ISI

a. Inspection Scope

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

- ultrasonic examination of four main steam welds (ms-1002-16, ms-1003-26, ms-1003-03 and ms-1004-03);
- ultrasonic examination of feedwater pipe-to-valve weld (FW-1001-20); and
- magnetic particle examination of eight low pressure core spray pipe lugs (LP02-1052x).

The inspectors reviewed the following examination records with relevant/recordable conditions/indications identified by the licensee to determine whether acceptance of these indications for continued service was in accordance with the ASME Code Section XI or an NRC-approved alternative:

- Report No. L1R14-007; LCS-1-N4A Nozzle-to-Shell Weld Indications;
- Report No. L1R14-010; LCS-1-N4D Nozzle-to-Shell Weld Indications; and
- Report No. L1R14-011; LCS-1-N4E Nozzle-to-Shell Weld Indications.

The inspectors reviewed records of the following pressure boundary welds completed for a risk-significant system to determine if the licensee followed an ASME Code Section IX qualified welding procedure, maintained control of foreign material, and to determine whether the welder used qualified weld filler material and base material. The inspectors also reviewed records, to determine if the welds met the ASME Code Sections III and XI.

- Shop weld No. HP-1006-16 and field welds Nos. HP-1006-15a and HP-1006-17 fabricated during the replacement of a high pressure core spray (HPCS) elbow as recorded in WO 1635336-05.

b. Findings

No findings were identified.

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

.3 Boric Acid Corrosion Control (Not Applicable)

.4 Steam Generator Tube Inspection Activities (Not Applicable)

.5 Identification and Resolution of Problems

a. Inspection Scope

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

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

The inspectors performed these reviews to evaluate compliance with 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” requirements. The CAP documents reviewed by the inspectors are listed in the Attachment to this report and this review included AR 01459827 “Unit 1 Pressure Temperature (P/T) Curves Non-Conservative Due To Integrated Surveillance Program Capsule Analysis.”

By letter, (ADAMS No. ML13011A005) dated January 10, 2013, Exelon informed the NRC that LaSalle County Station, Unit 1, had a potential non-conservatism in the TS. Specifically, after analysis of the 120° RV surveillance capsule, the licensee determined

that the existing P/T limits were valid only until 21.0 EFPY, instead of the 32 EFPY as stated in TS 3.4.11. The licensee captured this issue in AR 01459827 and the inspectors reviewed the licensee's resolution for this issue, which was only applicable to the Unit 1 RV.

b. Findings

Untimely Test, Evaluation, and Report on RV Surveillance Material

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated SL IV NCV of 10 CFR 50.60, "Acceptance Criteria for Fracture Prevention Measures for Lightwater Nuclear Power Reactors for Normal Operation," for the licensee's failure to conduct a timely test, evaluation, and report on the material contained in the 120° RV surveillance capsule within one year of capsule withdrawal to validate the RV P/T limits. Specifically, in February 2010, the licensee withdrew the RV capsule at the 120° azimuth but did not report test results until November 2011 and did not report the impact of these results on P/T limits until January 2013.

Description: By NRC letter dated December 5, 2013, the NRC identified that evaluation of the 120° RV capsule surveillance data and review of P/T limits for LaSalle Unit 1 was not completed within one year of capsule withdrawal, contrary to 10 CFR Part 50, Appendix H reporting requirements. Specifically, the licensee had failed to conduct a timely test, evaluation, and report on the material in the 120° RV surveillance capsule within one year of capsule withdrawal to validate the analyzed P/T limits. The inspectors were concerned that the untimely testing and evaluation of this capsule had allowed the plant to operate in a "near-miss" condition such that, had a plant shutdown occurred, the subsequent restart activity may have resulted in plant operation outside the analyzed P/T curves. Operation of the plant outside the analyzed P/T limit curves could increase the chance for brittle fracture of the RV.

Reactor vessel surveillance capsules contain vessel plate and weld materials, which are periodically withdrawn and tested to monitor the rate of neutron embrittlement of RV beltline materials. The capsule material test results also support the Boiling Water Reactor Vessel and Internals Program [BWRVIP]-86-A "BWR Vessel and Internals Project, Updated BWR Integrated Surveillance Program," which allows other licensee with similar RV beltline materials to apply the test results. Specifically, the material test results are used to confirm and/or periodically readjust the operating P/T curves as identified in TS 3.4.11, "RCS Pressure and Temperature Limits." The P/T limits for operation of the reactor ensure adequate margins exist to prevent brittle failure of the RV.

The inspectors reviewed the following timeline of relevant documents to evaluate this issue.

- February 12, 2010: The licensee removed the Unit 1 RV surveillance capsule at the 120° azimuth, which had been irradiated in the reactor since plant startup, under WO 00652723-02.
- February 3, 2011: The BWRVIP issued a letter to notify the NRC that testing of this capsule contents to comply with the requirements of 10 CFR 50 Appendix H, would be completed by February 28, 2011, and the final report of this testing would be transmitted to the NRC no later than December 16, 2011.

- November 18, 2011: The BWRVIP provided the NRC with Report No. BWRVIP-250NP: BWR Vessel and Internals Project Testing and Evaluation of the LaSalle Unit 1 120° Surveillance Capsule." In this report, the BWRVIP documented test results from the Unit 1 RV 120° azimuth surveillance capsule that revealed a shift in the measured reference transition temperature (e.g., embrittlement) for weld heat 1P3571 that was approximately 8 percent greater than the predicted shift (including margins). However, this report did not evaluate the impact on the LaSalle Unit 1 P/T limits nor did it provide a date for submittal of the revised P/T TS as required by 10 CFR 50, Appendix H.
- January 10, 2012: The BWRVIP issued a letter to LaSalle with an evaluation of the Unit 1 test data from the 120° azimuth RV surveillance capsule including deriving the chemistry factor needed to develop the revised P/T curves.
- January 8, 2013: The licensee documented in AR 01459827 that immediate operability was assured even with new limiting material test data by removing conservatisms from the fluence calculation such that the current P/T curves for Unit 1 remained valid for 26.5 EFPY, or until approximately the year 2017. Additionally, the licensee determined that the RCS pressure test performed at the conclusion of the prior RFO (March 2012) was performed at approximately 20.8 EFPY, so the use of the existing P/T curves for the test was appropriate, because the existing P/T curves were valid to 21.0 EFPY.
- January 10, 2013 (35 months after initial capsule withdrawal): The licensee issued a letter to notify the NRC that based upon the test results from BWRVIP-250NP, the existing P/T curves were only valid until 21 EFPY and as of January 1, 2013, Unit 1 was at 21.6 EFPY. The licensee also identified a more realistic method of calculating fluence in support of the P/T curves for Unit 1 such that the existing P/T curves would remain valid until 26.5 EFPY (approximately the year 2017). Additionally, the licensee committed to provide the NRC with revised P/T curves by December 31, 2013.
- August 29, 2013: The licensee completed corrective action No. 5 of AR 01459827 to revise site procedures with a limitation on the use of the current Unit 1 P/T curves to 26.5 EFPY.
- December 5, 2013: The NRC issued a letter to the licensee which identified two issues: 1) The surveillance capsule withdrawn from LaSalle Unit 1 in February 2010 was not in evaluated accordance with the timeliness requirements of 10 CFR 50, Appendix H, "Reactor Vessel Material Surveillance Program Requirements," and 2) The operability determination completed for the non-conservative P/T limits used two different fluence models.
- December 18, 2013: The licensee entered the issues identified by the NRC in the December 5, 2013 letter, into the CAP (AR 01598777).
- December 20, 2013: The licensee requested an TS amendment to the LaSalle Unit 1 operating license to incorporate revised P/T curves (reference ADAMS No. ML13358A363). These revised P/T curves included more restrictive limits during plant startup and shutdown operations to avoid operating the vessel in P/T regions that do not provide adequate margins to brittle fracture failure.

On February 11, 2011, the licensee documented in AR 01174007 that the surveillance capsule testing and analysis were still in progress, so the BWRVIP could not submit the test report to the NRC within the year and that the BWRVIP had discussed this delay with the NRC. In this AR, the licensee incorrectly concluded that no additional NRC notification by LaSalle was required for this issue. Although the licensee had recognized

that NRC timeliness requirements for testing, evaluation, and reporting of the RV surveillance capsule results were not met, no action was initiated to request approval from the Director, Office of Nuclear Reactor Regulation (NRR). The reason that the licensee never requested NRR approval for this delay stemmed from an incorrect belief that the one year timeliness requirement started from the date that the surveillance capsule test data was evaluated and reported by the BWRVIP. Therefore, the licensee had not requested approval from NRR for the 35 months that it took to conduct testing, evaluation and reporting of results for the 120° azimuth RV surveillance capsule. After identification by the NRC, the licensee entered this issue into the CAP (AR 01598777) and requested a TS amendment with revised P/T curves that reflected the surveillance capsule test results.

Analysis: The inspectors determined that the failure to conduct a timely test, evaluation, and report on the 120° RV surveillance capsule material within one year of capsule withdrawal was contrary to 10 CFR 50.60 and was a performance deficiency. Additionally, the failure to provide a timely report on this surveillance capsule had the potential to impede or impact the regulatory process; therefore, the finding was evaluated in accordance with the NRC Enforcement Policy for traditional enforcement items and the underlying technical issue was evaluated using the SDP to determine the risk significance of this issue. Specifically, this violation is associated with a finding that has been evaluated by the SDP and communicated with an SDP color reflective of the safety impact of the deficient licensee performance. The SDP, however, does not specifically consider the regulatory process impact or actual consequences. Although related to a common regulatory concern, it is necessary to address the violation and finding using different processes to correctly reflect both the regulatory importance of the violation and the safety significance of the associated finding.

The inspectors determined that this issue was more than minor in accordance with IMC 0612, Appendix B, dated September 7, 2012, because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the failure to conduct a timely test, evaluation, and report on the material in the 120° RV surveillance capsule could have resulted in plant operation in an unacceptable region that would increase the possibility of vessel failure by brittle fracture (similar to pressurized thermal shock event for a pressurized water reactor). The inspectors performed a Phase I SDP screening using IMC 0609, Attachment 0609, Appendix A, Exhibit 3-Barrier Integrity Screening Questions, dated June 19, 2012, and selected the box under the RCS Boundary (e.g., pressurized thermal shock issues) which required a detailed risk-evaluation.

A Region III senior reactor analyst performed a detailed risk-evaluation of this finding. A potential increase in the probability for vessel failure would exist if the plant was inadvertently operated in the unacceptable P/T region. Because no actual operation outside analyzed P/T limits occurred, the driving force for crack propagation (e.g., K1) remained unchanged. However, to bound the delta risk evaluation, it was assumed that the initiating event frequency for a RV failure increased by 10 percent. From the LaSalle Standardized Plant Analysis Risk Model, version 8.21, the initiating event frequency for RV failure from any cause is 1×10^{-7} per year. Core damage is expected to occur if RV failure occurs. The exposure time for the finding was the maximum of one year. Thus, a bounding risk assessment yields a delta risk of 1×10^{-8} per year. Therefore, based on the detailed risk-evaluation, this finding is of very low risk significance (Green).

This violation was similar to an example of a SL IV violation identified in Section 6.9.d.9 of the NRC Enforcement Policy, which identifies an example related to failure to make a required report under 10 CFR 50.72 or 10 CFR 50.73. In accordance with Section 2.2.1, "Factors Affecting Assessment of Violations," of the NRC Enforcement Policy, in determining the significance of a violation, the NRC will consider appropriate factors for the particular regulatory process violation. These factors may include the significance of the underlying issue, whether the failure actually impeded or influenced regulatory action, the level of individuals involved in the failure and the reason why the failure occurred given their position and training, and whether the failure invalidates the licensing basis. Because the report timeliness requirements were not met for reporting the 120° RV surveillance capsule results, the NRC did not have the opportunity to review and approve the revised P/T curves prior to the plant exceeding the 21 EFPY limit for application of the existing NRC-approved P/T curves. Therefore, the failure to provide a timely report on this surveillance capsule had the potential to have impeded the regulatory process. Because of the very low risk significance, this issue was considered a SL IV violation.

This finding has a cross-cutting aspect in the area of PI&R, Resolution, because the licensee did not take appropriate corrective actions to address safety issues in a timely manner, commensurate with their safety significance (P.3). Specifically, the licensee failed to develop a procedure or process for monitoring the timeliness of surveillance capsule testing, analysis and reporting.

Enforcement: Title 10 CFR 50.60, "Acceptance criteria for fracture prevention measures for lightwater nuclear power reactors for normal operation," requires that all light-water nuclear power reactors meet the fracture toughness and material surveillance program requirements for the RCS pressure boundary set forth in appendices G and H to this part.

Appendix H to Part 50, "Reactor Vessel Material Surveillance Program Requirements," Section IV, "Report of Test Results," Paragraph A., states that "Each capsule withdrawal and the test results must be the subject of a summary technical report to be submitted, as specified in 10 CFR 50.4, within one year of the date of capsule withdrawal, unless an extension is granted by the Director, Office of Nuclear Reactor Regulation."

Appendix H to Part 50, "Reactor Vessel Material Surveillance Program Requirements," Section IV, "Report of Test Results," Paragraph C., states that "If a change in the TS is required, either in the pressure-temperature limits or in the operating procedures required to meet the limits, the expected date for submittal of the revised TS must be provided with the report."

Contrary to the above, for the LaSalle Unit 1 RV 120°surveillance capsule removed on February 12, 2010, the capsule withdrawal and the test results were not the subject of a summary technical report submitted to the NRC within one year. Instead, the subject technical report (BWRVIP-250NP) was submitted to the NRC on November 18, 2011, approximately 21 months after capsule was withdrawn. Further, based on the results from report BWRVIP-250NP, changes were required to the TS P/T curves and this report did not identify the expected date for submittal of the revised TS. The NRC was not notified of the expected date for submittal of the revised TS change until approximately 35 months after capsule withdrawal. In accordance with the Enforcement Policy, this violation was classified as a SL IV violation because the underlying issue

was of very low risk significance. Because this issue was of very low safety significance, was not repetitive or willful, and was entered into the licensee's CAP (as AR 01598777), this violation is being treated as an NCV, consistent with Section 2.3.2.a and Section 6.9 of the NRC Enforcement Policy (NCV 05000373/2014002-01, Untimely Test, Evaluation, and Report on RV Surveillance Material).

Corrective actions for this issue included submittal of a TS amendment request with revised P/T curves that reflected the surveillance capsule test results.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review of Licensed Operator Requalification

a. Inspection Scope

On March 19, 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 of Heightened Activity or Risk

a. Inspection Scope

On February 28, 2014, the inspectors observed Unit 1 restart and power ascension activities. This was an activity that required heightened awareness. 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.

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 HPCS piping, which is a risk-significant system.

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/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.

This inspection constituted one quarterly maintenance effectiveness sample 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:

- changes to work schedule due to cold weather alert on January 27, 2014;
- Yellow shutdown safety level on Unit 1 on February 14–15;
- Yellow shutdown safety level on Unit 1 due to Division II AC/DC work window during the work week of February 17; and
- emergent Yellow risk condition for both units due to station air compressor trip during the work week of February 24.

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 during this inspection 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 Functionality Assessments (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- freon leak on 0A auxiliary electrical equipment room ventilation;
- Unit 1 R safety relief valve (SRV) lifting earlier than its setpoint; and

- Unit 1 N4 feedwater nozzle covers left open after RFO.

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

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

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

.1 Plant Modifications

a. Inspection Scope

The inspectors reviewed a permanent modification to the UFSAR commitment to Regulatory Guide 1.9.

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the UFSAR, and the TSs, as applicable, to verify that the modification did not affect the operability or availability of the affected system(s). The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Post-Maintenance Testing

a. Inspection Scope

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

- Unit 1 RHR valve 1E12-F008 following emergent maintenance;
- Unit 1 main steam safety valve operability test LOS-MS-R7; and
- Unit 1 reactor core isolation cooling (RCIC) following outage work.

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

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

b. Findings

No findings were identified.

1R20 Outage Activities (71111.20)

.1 Refueling Outage Activities

a. Inspection Scope

The inspectors reviewed the outage safety plan and contingency plans for the Unit 1 RFO, conducted February 10 through March 3, 2014, to confirm that the licensee had appropriately considered risk, industry experience, and previous site-specific problems in developing and implementing a plan that assured maintenance of defense-in-depth. During the RFO, the inspectors observed portions of the shutdown and cooldown processes and monitored licensee controls over the outage activities listed below:

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

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

(1) Failure to Follow the Drywell Closeout Procedure when Declaring Primary Containment Ready for Power Operations

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to conduct primary containment (drywell) closeout activities in accordance with site procedures. Specifically, the licensee did not properly inspect the drywell in preparation for power operations.

Description: On February 25, 2014, LaSalle Unit 1 was in Mode 4, Cold Shutdown. Temperature in the RCS was 200 degrees Fahrenheit and time to boil was 4 hours. Site personnel were finalizing LaSalle RFO L1R15 activities and were in the process of restoring plant systems to service in preparation for power operations. As part of the NRC's outage inspections, and following the licensee's completion of primary containment (drywell) closeout activities, the inspectors conducted an independent inspection of the drywell prior to its closure. The inspection consisted of a thorough walkdown to verify, among other things, that tags were cleared and equipment was

ready for operation, that there was no evidence of leakage, and that there was no debris that might contribute to ECCS equipment blockage or damage.

During the drywell closeout inspection, the inspectors identified that the licensee had not secured the reactor shield steel doors around three of the six feedwater system penetrations into the RV. The reactor shield is a composite structural steel and plain concrete, open-ended shell placed around the RV. One function of the shield is to act as a radiation and heat barrier between the RV and the drywell wall. The reactor shield is also designed as a structural member to support equipment and piping-loads as well as to resist pipe rupture, pressure, thermal, and seismic loads. The major pipe penetrations are sealed by prefabricated steel doors designed to resist transient pressure loadings within the shield annulus. The inspectors identified that the steel doors' fasteners were not secured to the structure of the reactor shield and as a result were not performing their design function as described in UFSAR Section 3.8, "Design of Category I Structures."

Licensee procedure LOP-DW-01, "Drywell Closeout (After Outage)," an activity affecting quality, outlined the steps necessary to close out the drywell after an outage. Step E.3.10 of this procedure instructed the licensee to verify through visual inspection that drywell equipment that was worked on during the outage appears ready for operation, including: hanger supports and flanges made up, insulation installed, all piping and electrical connections complete, no obstructions to rotating equipment, and guards and covers replaced. Since the steel doors surrounding three feedwater system lines were not secured as part of the completion of LOP-DW-01, they would have been left open for the entire duration of the operation cycle had it not been for NRC intervention.

Additionally, inspectors identified an unsecured steel plank, approximately 3'x8'x1/4" in dimension, tucked loosely below a partially exposed area of the floor decking. The steel plank, which was determined to be the floor plank that gets installed to complete the entrance walkway when the equipment hatch is removed, was lying loosely over the top of two drywell-to-suppression pool downcomers. The presence of this unsecured steel plank was of concern to the inspectors because during a high energy blowdown event inside the drywell (e.g., large break loss-of-coolant accident), such large unsecured objects can cause damage to nearby structures, systems, or components if the blowdown forces cause unintended contact or collisions. Upon notification by the inspectors of the discovery of the plank, the licensee removed it from the drywell.

Analysis: The inspectors determined that the failure to perform an adequate drywell closeout following the LaSalle Unit 1 RFO in accordance with procedure LOP-DW-01, "Drywell Closeout (After Outage)," was a performance deficiency that warranted further evaluation. Using the guidance in IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, the inspectors determined that the performance deficiency was greater than minor, and therefore a finding, because it was associated with the Equipment Performance attribute of the Mitigating Systems Cornerstone, and adversely affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the RV shield was not restored to its normal configuration prior to the drywell being considered ready for power operations, and as a result, the design function to resist transient pressure loadings within the shield annulus would have been compromised.

Because this finding occurred while the plant was shut down, the inspectors used IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process," dated February 28, 2005. Using Attachment 1, "Phase 1 Operational Checklists for Both Pressurized Water Reactors and Boiling Water Reactors," and specifically Checklist 8, "Boiling Water Reactor Cold Shutdown or Refueling Operation, Time to Boil greater than 2 Hours: RCS Level less than 23 feet," the inspectors qualitatively determined that the finding involved adequate mitigation capability and was not an event that could be characterized as a loss of control. As a result, the inspectors concluded that the finding was of very low safety significance (Green). This finding had a cross-cutting aspect in the area of Human Performance, Work Management, because the licensee did not implement a process of controlling and executing work activities such that nuclear safety is the overriding priority (H.5). Specifically, the licensee's process did not ensure that the reactor shield was intact prior to the completion of the drywell closeout procedure.

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, or drawings, of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings. Licensee procedure LOP-DW-01, "Drywell Closeout (After Outage)," an activity affecting quality, outlines the steps necessary to close out the drywell after an outage. Procedure LOP-DW-01 states, in part, to verify through visual inspection that drywell equipment worked on during the outage appears ready for operation.

Contrary to the above, on February 25, 2014, the licensee failed to ensure that the drywell appeared ready for operation. Specifically, the steel doors that are part of the reactor shield structure were not secured around three of the six feedwater lines that penetrate the RV, prior to concluding that the drywell was ready for power operation. Because the issue was of very low safety significance, was entered into the CAP (as AR 01626925), and was not willful, this violation is being treated as an NCV consistent with Section 2.3.2.a of the NRC Enforcement Policy (NCV 05000373/2014002-02, Failure to Follow the Drywell Closeout Procedure When Declaring Primary Containment Ready for Power Operations).

Corrective actions included securing the reactor shield doors prior to power operation and placing the issue into the CAP to determine future preventive measures, such as a procedure revision to LOP-DW-01 to provide more detail.

(2) Failure to Ensure that Activities Affecting Quality were Performed in Accordance with Current Procedure Revisions

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of TS 5.4.1, "Procedures," for the licensee's failure to ensure that activities affecting quality were conducted in accordance with current, approved, revisions of procedures as required by licensee procedure HU-AA-104-101, "Procedure Use And Adherence," Revision 4. Specifically, on three separate occasions, inspectors identified that work groups were using superseded procedure revisions in the field and that no supervisory review was performed to allow the use of those superseded procedures.

Description: During the L1R15 RFO, the inspectors observed various in-field outage activities and noted that on multiple occasions the licensee included superseded procedures in several WO packages being worked in the field. The inspectors reviewed

procedure HU-AA-104-101, “Procedure Use And Adherence,” Revision 4, which stated that procedure users were to use controlled procedures or authorized critical procedures at the time the task starts and that superseded revisions may still be used for applicable work tasks provided a supervisory evaluation was done to ensure no significant differences (fatal flaws) existed between revisions and it would be removed from further use upon task completion. Per procedure HU-AA-104-101, it was incumbent upon the user to bring the issue of the outdated procedure up to the supervisor for evaluation. The licensee did not identify to the inspectors any records of such evaluations for the activities in question.

On February 19, 2014, inspectors observed the performance of WO 01441417. The test procedure being employed in the field was LTS-100-50, “Drywell / Suppression Chamber PC Vacuum Breaker Manual Isolation Valve Outboard Flange Seal Leak Check 1PC002C and 1PC003C,” Revision 9, dated October 24, 2012. This procedure verified that flange leakage did not exist outside the primary containment. Upon review, the inspectors identified that the current revision of the procedure was Revision 11, dated January 30, 2014. Based on the inspectors’ observations, the licensee documented the concern in AR 01623438, and the correct procedure was placed in the field. The licensee subsequently verified that the use of the superseded revision had no effect on the outcome of the testing and the inspectors also verified that the acceptance criteria were not affected.

On February 21, 2014, the inspectors examined the procedures included in WO package 01635336-05 for cutting out and replacing an ASME Class 2 section of pipe on the HPCS system. The following superseded procedure revisions were included in the in-field WO package:

- CC-AA-501-1028, “Exelon Nuclear Welding Program High Risk/High Value, Revision 5, while Revision 6 was current;
- MP-HO-01, “Removal and Installation of Pacific Scientific Mechanical Snubbers/Struts,” Revision 22, while Revision 23 was current; and
- MA-LA-796-001, “EME/RFI Evaluation and Mitigation Techniques for Welding Activities,” Revision 1, while Revision 2 was current.

The licensee documented the inspectors’ observations in AR 01625505.

The inspectors subsequently examined WO package 01560556-01, performed from February 10 through 26, 2014. Five of the procedures used were of the correct revision, while one was not: mechanical maintenance procedure LMP-HO-03, “Removal and Installation of Lisega Snubbers and Struts,” Attachment B, Revision 18, while Revision 19 was current. The snubber removal and installation was for an ASME Class 1 section of piping on the Unit 1 RCIC system.

The inspectors noted an apparent commonality between the deficient work activities that were observed. Specifically, the WO packages in question were all finalized weeks to months in advance of the RFO. The licensee’s Work Control department creates the WO package, at times 3 to 6 months prior to the start of work, but does not have a programmatic function to revisit WO package to ensure proper procedure revisions were included prior to the start of work. The inspectors found that many WO packages did have a sign-off step to verify correct procedures at the start of work; however, some did

not. The inspectors also noted that the licensee's pre-job brief checklist did not include a step to verify current procedure revisions prior to starting work.

Analysis: The inspectors determined that the failure to perform activities affecting quality in accordance with the most current revisions of procedures was contrary to HU-AA-104-101, "Procedure Use And Adherence," Revision 4, and was a performance deficiency.

The finding was determined to be more than minor because if left uncorrected, the performance deficiency had the potential to become a more significant safety concern. Specifically, continuing to perform activities affecting quality with out-of-date procedures would eventually lead to the inadvertent creation of degraded or non-conforming conditions resulting in potential system failures or malfunctions. The inspectors concluded this finding was associated with the Barrier Integrity and Mitigating Systems Cornerstones due to the nature of the work activities observed, e.g., Unit 1 HPCS minimum flow recirculation elbow replacement which affected both the HPCS mitigating system as well as barrier integrity of the primary containment since that line was non-isolable from the suppression pool in the primary containment.

The inspectors applied IMC 0609.04, "Initial Characterization of Findings," to this finding, and because the finding pertained to events that transpired while the plant was shutdown, Table 3 of IMC 0609.04 instructed reference to IMC 0609, Appendix G, "Shutdown Operations SDP." The inspectors used Checklist 7, contained in IMC 0609, Appendix G, Attachment 1, and determined that the finding did not require a phase 2 or phase 3 analysis because the plant had appropriately met the safety function guidelines for core heat removal, inventory control, power availability, containment integrity, and reactivity control. The issue did not need a quantitative assessment and screened as Green using Figure 1.

This finding has a cross-cutting aspect in the area of Human Performance, Work Control, because the licensee's supervisors did not ensure that the appropriate procedures were available to the workers to support nuclear safety (H.1). Specifically, the cognizant supervisors did not obtain copies of the controlling documents from a controlled document set immediately prior to the performance of the tasks.

Enforcement: Technical Specification 5.4.1.a states that written procedures shall be established, implemented, and maintained covering those activities delineated in Regulatory Guide (RG) 1.33, Rev. 2, Appendix A, February 1978. Section 1.d of RG 1.33 contains the requirement to have a "Procedure Adherence" procedure. Licensee procedure HU-AA-104-101, "Procedure Use And Adherence," Revision 4, is used to satisfy that RG 1.33 requirement and states that "procedure users are to use controlled procedures or authorized critical procedures at the time the task starts and that superseded revisions may still be used for applicable work tasks provided a Supervisory evaluation is done to ensure no fatal flaw exists."

Contrary to the above, from February 10 through 26, 2014, licensee procedure users failed to use controlled procedures or authorized critical procedures, in the conduct of safety-related work, by using procedures whose revisions were out of date. Additionally, no documentation or evidence was furnished by the licensee to show that any supervisory evaluations took place for the activities in question that would have allowed those superseded procedures to be used.

This violation is being treated as an NCV consistent with Section 2.3.2.a of the Enforcement Policy because it was of very low safety significance, was entered into the licensee's CAP (as AR 01625505), and was not willful (NCV 05000373/2014002-03, Failure to Ensure that Activities Affecting Quality Were Performed in Accordance with Current Procedure Revisions).

As corrective actions, the licensee will ensure that the affected organizations and susceptible work groups complete read-and-signs to drive awareness of this issue and to reemphasize the current requirements to personnel. Additionally, the Human Performance Manager has been tasked with considering a procedure revision to the HU-AA-111-F-01 Pre-Job Brief Check List procedure to include a procedure revision check box.

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:

- Units 1 and 2 Surveillance Requirement 3.8.1.13 frequency change (Routine);
- Unit 1A DG 24-Hour run, LOS-DG-R1A (inservice testing--IST);
- Unit 1 RCIC operability test, LOS-R1-R3 (Routine);
- Unit 1 RHR loop B valves local leak rate testing (local leak rate testing--LLRT), LTS-100-43 (Routine); and
- Unit 1 main steam isolation valve LLRT, LTS-100-3 (containment isolation valve--CIV).

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

Documents reviewed are listed in the Attachment to this report.

This inspection constituted three routine surveillance testing samples, one containment isolation valve (CIV) sample, and one inservice testing (IST) sample as defined in IP 71111.22 -02 and -05.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Public Radiation Safety and Occupational Radiation Safety

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

This inspection constituted a partial radiological hazard assessment and exposure controls inspection sample as defined in IP 71124.01-05.

.1 Radiological Hazard Assessment (02.02)

a. Inspection Scope

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

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

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

- under-vessel preparations and setup, including removal of shootout steel;
- RV disassembly, including lifting of the steam dryer; and
- insulation activities not in the drywell.

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

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

b. Findings

No findings were identified.

.2 Instructions to Workers (02.03)

a. Inspection Scope

The inspectors selected various containers holding non-exempt, licensed radioactive materials that may cause unplanned or inadvertent exposure of workers, and assessed whether the containers were labeled and controlled in accordance with 10 CFR 20.1904, “Labeling Containers,” or met the requirements of 10 CFR 20.1905(g), “Exemptions To Labeling Requirements.”

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

- RWP 10015573; L1R15 Under-Vessel Prep, Setup, Demobilization;
- RWP 10015609; L1R15 Rx Vessel Disassembly/Reassembly; and
- RWP 10015621; L1R15 Insulation Activities (No Drywell)

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

For work activities that could suddenly and severely increase radiological conditions, the inspectors assessed the licensee's means to inform workers of changes that could significantly impact their occupational dose.

b. Findings

No findings were identified.

.3 Radiological Hazards Control and Work Coverage (02.05)

a. Inspection Scope

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

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

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

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

The inspectors reviewed the following RWPs for work within airborne radioactivity areas with the potential for individual worker internal exposures:

- RWP 10015573; L1R15 Under-Vessel Prep, Setup, Demobilization;
- RWP 10015609; L1R15 Rx Vessel Disassembly/Reassembly; and
- RWP 10015621; L1R15 Insulation Activities (No Drywell)

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

b. Findings

No findings were identified.

.4 Radiation Worker Performance (02.07)

a. Inspection Scope

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

b. Findings

No findings were identified.

.5 Radiation Protection Technician Proficiency (02.08)

a. Inspection Scope

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

b. Findings

No findings were identified.

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

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

.1 Radiation Worker Performance (02.05)

a. Inspection Scope

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

b. Findings

No findings were identified.

2RS3 In-Plant Airborne Radioactivity Control and Mitigation (71124.03)

This inspection constituted a partial sample as defined in IP 71124.03-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the plant UFSAR to identify areas of the plant designed as potential airborne radiation areas and any associated ventilation systems or airborne monitoring instrumentation. Instrumentation review included continuous air monitors (continuous air monitors and particulate-iodine-noble-gas-type instruments) used to identify changing airborne radiological conditions such that actions to prevent an overexposure may be taken. The review included an overview of the Respiratory Protection Program and a description of the types of devices used. The inspectors reviewed the UFSAR, TSs, and emergency planning documents to identify location and quantity of respiratory protection devices stored for emergency use.

The inspectors reviewed the licensee's procedures for maintenance, inspection, and use of respiratory protection equipment including self-contained breathing apparatus (SCBA) as well as procedures for air quality maintenance.

The inspectors reviewed any reported performance indicators (PIs) related to unintended dose resulting from intakes of radioactive material.

b. Findings

No findings were identified.

.2 Use of Respiratory Protection Devices (02.03)

a. Inspection Scope

The inspectors reviewed records of air testing for supplied-air devices and SCBA bottles to assess whether the air used in these devices met or exceeded Grade D quality. The inspectors reviewed plant breathing air supply systems to determine whether they meet the minimum pressure and airflow requirements for the devices in use.

The inspectors selected several individuals qualified to use respiratory protection devices and assessed whether they have been deemed fit to use the devices by a physician.

The inspectors selected several individuals assigned to wear a respiratory protection device and observed them donning, doffing, and functionally checking the device as appropriate. Due to limited in-field observations, the inspectors reviewed training curricula for users of respiratory protection devices.

The inspectors chose multiple respiratory protection devices staged and ready for use in the plant or stocked for issuance for use. The inspectors assessed the physical condition of the device components (e.g., mask or hood, harnesses, air lines, regulators, air bottles) and reviewed records of routine inspection for each. The inspectors selected several of the devices and reviewed records of maintenance on the vital components (e.g., pressure regulators, inhalation/exhalation valves, hose couplings). The inspectors reviewed the Respirator Vital Components Maintenance Program to ensure that the repairs of vital components were performed by personnel authorized by the respirators' manufacturer.

b. Findings

No findings were identified.

.3 Self-Contained Breathing Apparatus for Emergency Use (02.04)

a. Inspection Scope

Based on the UFSAR, TSs, and emergency operating procedure requirements, the inspectors reviewed the status and surveillance records of SCBAs staged in-plant for use during emergencies. The inspectors reviewed the licensee's capability for refilling and transporting SCBA air bottles to and from the control room and operations support center during emergency conditions.

The inspectors selected several individuals on control room shift crews and from designated departments currently assigned emergency duties (e.g., onsite search and rescue duties) to assess whether control room operators and other emergency response and radiation protection personnel (assigned in-plant search and rescue duties or as required by emergency operating procedures or the emergency plan) were trained and qualified in the use of SCBAs (including personal bottle change out). The inspectors evaluated whether personnel assigned to refill bottles were trained and qualified for that task.

The inspectors reviewed the past two years of maintenance records for select SCBA units used to support operator activities during accident conditions and designated as "ready for service" to assess whether any maintenance or repairs on any SCBA unit's vital components were performed by an individual, or individuals, certified by the manufacturer of the device to perform the work. The vital components typically are the pressure-demand air regulator and the low-pressure alarm. The inspectors reviewed the onsite maintenance procedures governing vital component work to determine any inconsistencies with the SCBA manufacturer's recommended practices.

For those SCBAs designated as "ready for service," the inspectors determined whether the required, periodic air cylinder hydrostatic testing was documented and up-to-date, and the retest air cylinder markings required by the U.S. Department of Transportation were in place.

b. Findings

No findings were identified.

2RS4 Occupational Dose Assessment (71124.04)

This inspection constituted a partial sample as defined in IP 71124.04-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the results of Radiation Protection Program audits related to internal and external dosimetry (e.g., licensee's quality assurance audits, self-assessments, or other independent audits) to gain insights into overall licensee

performance in the area of dose assessment and focus the inspection activities consistent with the principle of “smart sampling.”

The inspectors reviewed the most recent National Voluntary Laboratory Accreditation Program accreditation report on the vendor’s most recent results to determine the status of the contractor’s accreditation.

A review was conducted of the licensee’s procedures associated with dosimetry operations, including issuance/use of external dosimetry (e.g., routine, multi-badging, extremity, neutron), assessment of internal dose (e.g., operation of whole body counter, assignment of dose based on derived air concentration hours, urinalysis), and evaluation of and dose assessment for radiological incidents (e.g., distributed contamination, hot particles, loss of dosimetry).

The inspectors evaluated whether the licensee established procedural requirements for determining when external and internal dosimetry was required.

b. Findings

No findings were identified.

.2 External Dosimetry (02.02)

a. Inspection Scope

The inspectors evaluated whether the licensee’s dosimetry vendor is National Voluntary Laboratory Accreditation Program accredited and if the approved irradiation test categories for each type of personnel dosimeter used were consistent with the types and energies of the radiation present and the way the dosimeter was being used (e.g., to measure deep dose equivalent, shallow dose equivalent, or lens dose equivalent).

The inspectors evaluated the onsite storage of dosimeters before their issuance, during use, and before processing/reading. The inspectors also reviewed the guidance provided to radiation workers with respect to care and storage of dosimeters.

The inspectors assessed whether non-National Voluntary Laboratory Accreditation Program accredited passive dosimeters (e.g., direct ion storage sight read dosimeters) were used according to licensee procedures that provide for periodic calibration, application of calibration factors, usage, reading (dose assessment), and zeroing. The licensee does not use non-National Voluntary Laboratory Accreditation Program accredited passive dosimeters.

The inspectors assessed the use of active dosimeters (electronic personal dosimeters) to determine if the licensee used a “correction factor” to address the response of the electronic personal dosimeter as compared to the passive dosimeter for situations when the electronic personal dosimeter must be used to assign dose. The inspectors also assessed whether the correction factor was based on sound technical principles.

The inspectors reviewed dosimetry occurrence reports or Corrective Action Program documents for adverse trends related to electronic personal dosimeters, such as interference from electromagnetic frequency, dropping or bumping, failure to hear

alarms, etc. The inspectors assessed whether the licensee identified any trends and implemented appropriate corrective actions.

b. Findings

No findings were identified.

.3 Internal Dosimetry (02.03)

Routine Bioassay (In Vivo)

a. Inspection Scope

The inspectors reviewed procedures used to assess the dose from internally deposited nuclides using whole body counting equipment. The inspectors evaluated whether the procedures addressed methods for differentiating between internal and external contamination, the release of contaminated individuals, the route of intake, and the assignment of dose.

The inspectors reviewed the whole body count process to determine if the frequency of measurements was consistent with the biological half-life of the nuclides available for intake.

The inspectors reviewed the licensee's evaluation for use of its portal radiation monitors as a passive monitoring system to determine if instrument minimum detectable activities were adequate to determine the potential for internally deposited radionuclides sufficient to prompt additional investigation.

The inspectors selected several whole body counts and evaluated whether the counting system used had sufficient counting time/low background to ensure appropriate sensitivity for the potential radionuclides of interest. The inspectors reviewed the radionuclide library used for the count system to determine its appropriateness. The inspectors evaluated whether any anomalous count peaks/nuclides indicated in each output spectra received appropriate disposition. The inspectors reviewed the licensee's 10 CFR Part 61 data analyses to determine whether the nuclide libraries included appropriate gamma-emitting nuclides. The inspectors evaluated how the licensee accounts for hard-to-detect nuclides in the dose assessment.

b. Findings

No findings were identified.

Special Bioassay (In Vitro)

a. Inspection Scope

There were no internal dose assessments obtained using in vitro monitoring for the inspectors to review. The inspectors reviewed and assessed the adequacy of the licensee’s program for in vitro monitoring (i.e., urinalysis and fecal analysis) of radionuclides (i.e., tritium, fission products, and activation products), including collection and storage of samples.

The inspectors reviewed the vendor laboratory quality assurance program and assessed whether the laboratory participated in an industry-recognized cross-check program, including whether out-of-tolerance results, were resolved appropriately.

b. Findings

No findings were identified.

Internal Dose Assessment – Airborne Monitoring

a. Inspection Scope

The inspectors reviewed the licensee's program for airborne radioactivity assessment and dose assessment, as applicable, based on airborne monitoring and calculations of derived air concentration. The inspectors determined whether flow rates and collection times for air sampling equipment were adequate to allow lower limits of detection to be obtained. The inspectors also reviewed the adequacy of procedural guidance to assess internal dose if respiratory protection was used. The licensee had not performed dose assessments using airborne/derived air concentration monitoring since the last inspection.

b. Findings

No findings were identified.

Internal Dose Assessment – Whole Body Count Analyses

a. Inspection Scope

The inspectors reviewed several dose assessments performed by the licensee using the results of whole body count analyses. The inspectors determined whether affected personnel were properly monitored with calibrated equipment and that internal exposures were assessed consistent with the licensee's procedures.

b. Findings

No findings were identified.

.4 Special Dosimetric Situations (02.04)

Declared Pregnant Workers

a. Inspection Scope

The inspectors assessed whether the licensee informs workers, as appropriate, of the risks of radiation exposure to the embryo/fetus, the regulatory aspects of declaring a pregnancy, and the specific process to be used for (voluntarily) declaring a pregnancy.

The inspectors selected individuals who had declared pregnancy during the current assessment period and evaluated whether the licensee’s Radiological Monitoring Program (internal and external) for declared pregnant workers was technically adequate to assess the dose to the embryo/fetus. The inspectors reviewed exposure results and

monitoring controls employed by the licensee and with respect to the requirements of 10 CFR Part 20.

b. Findings

No findings were identified.

Shallow Dose Equivalent

a. Inspection Scope

The inspectors reviewed shallow dose equivalent dose assessments for adequacy. The inspectors evaluated the licensee's method (e.g., VARSKIN or similar code) for calculating shallow dose equivalent from distributed skin contamination or discrete radioactive particles.

b. Findings

No findings were identified.

Neutron Dose Assessment

a. Inspection Scope

The inspectors evaluated the licensee's Neutron Dosimetry Program, including dosimeter types and/or survey instrumentation.

The inspectors reviewed neutron exposure situations (e.g., independent spent fuel storage installation operations or at-power containment entries) and assessed whether: (a) dosimetry and/or instrumentation was appropriate for the expected neutron spectra; (b) there was sufficient sensitivity for low dose and/or dose rate measurement; and (c) neutron dosimetry was properly calibrated. The inspectors also assessed whether interference by gamma radiation had been accounted for in the calibration and whether time and motion evaluations were representative of actual neutron exposure events, as applicable.

b. Findings

No findings were identified.

Assigning Dose of Record

a. Inspection Scope

For the special dosimetric situations reviewed in this section, the inspectors assessed how the licensee assigns dose of record for total effective dose equivalent, shallow dose equivalent, and lens dose equivalent. This included an assessment of external and internal monitoring results, supplementary information on individual exposures (e.g., radiation incident investigation reports and skin contamination reports), and radiation surveys and/or air monitoring results when dosimetry was based on these techniques.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Unplanned Scrams per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams per 7000 Critical Hours PI for Units 1 and 2 for the first quarter 2013 through the fourth quarter 2013. To determine the accuracy of the PI data reported for this period, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, were used. The inspectors reviewed the licensee's operator narrative logs, ARs, event reports, and NRC Integrated Inspection Reports for the period to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two unplanned scrams per 7000 critical hours samples as defined in IP 71151-05.

b. Findings

No findings were identified.

.2 Unplanned Scrams with Complications

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams with Complications PI for Units 1 and 2 for the first quarter 2013 through the fourth quarter 2013. To determine the accuracy of the PI data reported for this period, PI definitions and guidance contained in NEI 99-02 were used. The inspectors reviewed the licensee's operator narrative logs, ARs, event reports, and NRC Integrated Inspection Reports for the period to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

.3 Unplanned Transients per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Transients per 7000 Critical Hours PI for Units 1 and 2 for the first quarter 2013 through the fourth quarter 2013. To determine the accuracy of the PI data reported for this period, PI definitions and guidance contained in NEI 99-02 were used. The inspectors reviewed the licensee's operator narrative logs, ARs, maintenance rule records, event reports, and NRC Integrated Inspection Reports for the period to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two unplanned transients per 7000 critical hours samples as defined in IP 71151-05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

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

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

a. Inspection Scope

As part of the various baseline IPs discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify 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 followup, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily condition report packages.

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

b. Findings

No findings were identified.

.3 Selected Issue Followup Inspection: Fuel Leak

a. Inspection Scope

During a review of items entered in the licensee's CAP, the inspectors selected for additional review a CAP item documenting a root cause evaluation entitled "Fuel Degradation Caused by Debris Fretting in L2C14," AR 01601318. The inspectors reviewed associated documentation and interviewed licensee Radiation Protection 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 fuel leaks. This review constituted one in-depth PI&R sample as defined in IP 71152-05.

b. Findings

No findings were identified.

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

.1 (Closed) Licensee Event Report (LER) 05000374-2013-005-00: Technical Specification Required Shutdown Due to Pressure Boundary Leakage

This event occurred on April 27, 2013, with Unit 1 in Mode 2 (startup) following a forced outage. During a walk down of the drywell, a steam leak was observed coming from the RCIC Steam Supply Inboard Isolation valve (1E5-F076). The leak was determined to be on the valve bonnet extension-to-bonnet upper seal weld. The leak was classified as an RCS pressure boundary leakage, and TS 3.4.5 Condition C was entered. In accordance with required actions C.1 and C.2, the plant was placed in Mode 4 (shutdown) within 36 hours.

This occurrence was reportable under 10 CFR 50.73(a)(2)(i)(A) and 10 CFR 50.73(a)(2)(ii)(A) as an event or condition that resulted in the condition of the nuclear power plant, including its principal barriers, being seriously degraded. This

event did not constitute a safety system functional failure because makeup capability was adequate to compensate for the leak and all ECCSs were operable and capable of fulfilling their intended safety function. As a result, the licensee determined that the risk significance was minimal.

The inspectors reviewed the adequacy of the licensee's corrective actions in response to the events as described in the subject LER and as documented in AR 01507437. The licensee determined that the failure was caused by a defect in the original seal weld and, as a corrective action, the defective seal weld was removed and replaced. No findings or violations of NRC requirements were identified. This LER is closed.

Documents reviewed are listed in the Attachment to this report.

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

4OA5 Other Activities

The table below provides a cross-reference from the third and fourth quarter 2013 findings and associated cross-cutting aspects to the new cross-cutting aspects resulting from the common language initiative. These aspects and any others identified since January 2014 will be evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305 starting with the 2014 mid-cycle assessment review.

Finding	Old Cross-Cutting Aspect	New Cross-Cutting Aspect
05000374/2013004-01	H.1(b)	H.14
05000373/2013005-01	H.3(b)	H.4
05000373/2013-005-02; 05000374/2013-005-02	H.1(b)	H.14
05000373/2013-005-03; 05000374/2013-005-03	H.4(b)	H.8
05000373/2013-005-04; 05000374/2013-005-04	H.4(c)	H.2
05000373/2013-005-05; 05000374/2013-005-05	P.1(d)	P.3
05000373/2013008-02; 05000374/2013008-02	P.2(a)	P.5

4OA6 Management Meetings

.1 Exit Meeting Summary

On April 1, 2014, the inspectors presented the inspection results to Mr. H. Vinyard 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:

- inspection results for the areas of radiological hazard assessment and exposure controls and occupational ALARA planning and controls with Mr. P. Karaba, Site Vice President, on February 14, 2014;
- the ISI results with Mr. P. Karaba and other members of the licensee's staff on February 20, 2014; and
- the inspection results for the areas of in-plant airborne radioactivity control and mitigation and occupational dose assessment with Mr. H. Vinyard, Plant Manager, on March 28, 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 or destroyed.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

P. Karaba, Site Vice President
H. Vinyard, Plant Manager
J. Kowalski, Engineering Manager
B. Maze, Project Management
A. Schierer, Engineering Programs
K. Hall, Buried Piping Program Owner
V. Chopra, Engineering Programs
G. Ford, Regulatory Affairs Manager
L. Blunk, Regulatory Affairs
S. Shields, Regulatory Affairs
J. Vergara, Regulatory Assurance
D. Anthony, Exelon NDES Manager West
B. Casey, ISI Programs Engineering
J. Miller, Corporate NDES Level III
B. Hilton, Design Manager
J. Houston, Nuclear Oversight Manager
L. Ekern, Nuclear Oversight
D. Amezaga, Design Engineer
J. Bendis, Engineer
J. Hughes, Emergency Preparedness Coordinator
J. Shields, Invessel Visual Inspection Program Supervisor
S. Tanton, Engineer
A. Daniels, Exelon Emergency Preparedness Manager
M. Hayworth, Emergency Preparedness Manager
S. Tutoky, Senior Chemist
M. Martin, Chemistry Developmental Manager
T. Halliday, Radiation Protection Operation Manager
J. Moser, Radiation Protection Manager
C. Howard, Radiation Protection Operation Manager
S. Koval, Radwaste Shipping Specialist
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

05000373/2014002-01	NCV	Untimely Test, Evaluation, and Report on Reactor Vessel Surveillance Material (Section 1R08.5b)
05000373/2014002-02	NCV	Failure to Follow the Drywell Closeout Procedure when Declaring Primary Containment Ready for Power Operations (Section 1R20.1b.(1))
05000373/2014002-03	NCV	Failure to Ensure that Activities Affecting Quality were Performed in Accordance with Current Procedure Revisions (Section 1R20.1b.(2)))

Closed

05000373/2014002-01	NCV	Untimely Test, Evaluation, and Report on Reactor Vessel Surveillance Material (Section 1R08.5b)
05000373/2014002-02	NCV	Failure to Follow the Drywell Closeout Procedure when Declaring Primary Containment Ready for Power Operations (Section 1R20.1b.(1))
05000373/2014002-03	NCV	Failure to Ensure that Activities Affecting Quality were Performed in Accordance with Current Procedure Revisions (Section 1R20.1b.(2))
05000374-2013-005-00	LER	Technical Specification Required Shutdown Due to Pressure Boundary Leakage (Section 4OA3)

LIST OF DOCUMENTS REVIEWED

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

1R01 Adverse Weather Protection

Procedures:
- LPF-800-8; Spent Fuel Cask Contingency Actions; Rev. 7
- SY-LA-5003; Security Control of Personnel and Vehicles into the Lake Screen House Area, Switch Yard and ISFSI Area; Rev. 2
- WC-AA-107; Seasonal Readiness; Rev.12

Miscellaneous:
- 79103001; Commonwealth Edison Response to IE Bulletin 79-24 “Freeze Protection for Safety-Related Process, Instrument and Sampling Lines”; 10/30/1979
- IE Bulletin 79-24; Frozen Lines; 9/27/1979
- LaSalle Certification Letter for Winter Readiness; 11/15/2013

1R04 Equipment Alignment

Miscellaneous:
- Station CheckList Search, Search Criteria “DC”; 3/11/2014

1R05 Fire Protection

Miscellaneous:
- FZ-2B1; LaSalle County Generating Station Pre-Fire Plan; RX Bldg. 820’6” Elev. U1 General Area & SBGTS Area; 3/11/2014
- FZ-3B1; LaSalle County Generating Station Pre-Fire Plan; RX Bldg. 820’6” Elev. U2 General Area & SBGTS Area; 3/11/2014

1R08 Inservice Inspection Activities

Procedures:
- Approval Form; LGP-2-1 Normal Unit Shutdown; Rev. 99
- Approval Form; LGP-3-2 Reactor Scram; Rev. 67
- Approval Form; LOS-NB-R1 Unit 1 Reactor Vessel Leakage Test; Rev. 13
- ER-AA-335-003; Magnetic Particle Examination; Rev. 5
- GEH-UT-716; for the Examination of Reactor Vessel Welds from the Outside Surface with Microtomo in Accordance with Appendix VIII; Rev. 3
- GE-PDI-UT-1; PDI Generic for the Ultrasonic Examination of Ferritic Pipe Welds; Rev. 8
- GE-PDI-UT-2; PDI Generic for the Ultrasonic Examination of Austenitic Pipe Welds; Rev. 6
- GE-PDI-UT-3; PDI Generic for Ultrasonic Thru Wall Sizing in Piping Welds; Rev. 3
- GE-PDI-UT-5; PDI Generic for Straight Beam Ultrasonic Examination of Bolts and Studs; Rev. 5
- GE-UT-300; for Manual Examination of Reactor Vessel Assembly Welds in Accordance with PDI; Rev. 12
- PI-AA-125-1003; Apparent Cause Evaluation Manual; Rev. 0

- Weld Specification 1-1-GTSM-PWHT; Rev. 2
- Weld Specification 1-8-GTSM; Rev. 1

Action Requests:
- 1598777; NRC Letter Received for Surveillance Capsule Test Results; 12/18/2013
- 1459827; Unit 1 P-T Curves Non-Conservative Due To ISP Capsule Analysis; 1/8/2013
- 1358938; Results from L1R14 Exam of Core Shroud Horizontal Welds; 4/26/2012
- 1162948; Adverse Trend in FME; 1/14/2011
- 1173113; Identified Leak on 1E51-F076; 2/9/2011
- 1174007; Delay in Submitting ISP Results Report to NRC; 2/11/2011
- 1177416; FME Identified on Fuel Assembly in Core; 2/19/2011
- 1177598; Shroud Access Hole Cover FME Unchanged; 2/20/2011
- 1177556; As Found Condition of Steam Jet Body; 2/20/2011
- 1273841; ISI Program Health Rating Yellow; 10/7/2011
- 1315401; Surveillance Capsule Data Analysis Needed; 1/19/2012
- 1507432; RCIC Steam Line Warmup Valve1E51-F076 Leak; 4/27/2013
- 1177586; Potential FME Noted During RCIC Turbine Disassembly; 2/20/2011
- 1358865; LPCS Flaw Inside RPV Re-Sized in L1R14;3/25/2014

Calculations:
- L-003008; L1R14 Core Spray Flow Evaluation; Rev. 4

Licensee Event Reports:
- LER 05000374 2013 005 00; Technical Specification Required Shutdown Due to Pressure Boundary Leakage; 6/26/2013

Miscellaneous:
- Letter from Exelon Generation Company to the NRC; License Amendment Request to Revise Reactor Coolant System (RCS) Pressure and Temperature (P/T) Curves for LaSalle County Station, Unit 1; 12/20/2013
- Letter from EPRI BWRVIP to the LaSalle Station Unit 1 Surveillance Capsule Test Results Report; 2/3/2011
- Letter from NRC to Exelon Generation Company; LaSalle County Station, Unit and 2- Review Closeout of Surveillance Capsule Report and Non-Conservative P/T Limit Curve Technical Specification; 12/5/2013
- Letter from Exelon Generation Company to the NRC; Evaluation of LaSalle County Station Unit 1 120° Capsule Surveillance Data; 1/10/2013
- Letter from Exelon Generation Company to the NRC; License Amendment Request to Revise Reactor Coolant System Pressure and Temperature Curves for LaSalle Count Station, Unit 1; 12/20/2013
- Letter from EPRI BWRVIP to the NRC; Project No. 704 - LaSalle Station Unit I Surveillance Capsule Test Results Report; 2/3/2011
- Letter from EPRI BWRVIP to the NRC; Project No. 704 - BWRVIP-250NP: BWR Vessel and Internals Project, Testing and Evaluation of the LaSalle Unit 1 1200 Surveillance Capsule; 11/18/2011
- Letter from the EPRI BWRVIP to the LaSalle Station with an evaluation of the LaSalle Unit 1 test data from the 120° azimuth RV surveillance capsule; 1/10/2012
- Qualification Record; 1-53B; 1/29/1986
- Qualification Record; 2-53A; 2/12/1986
- Qualification Record; 1-50C; 1/3/1994
- Qualification Record; 002-41-055; 2/3/1994

- Qualification Record; A-001; 10/19/1998
- Qualification Record; A-002; 3/9/1999
- ASME Weld Data Record; HPCS Weld (no. 16); 2/4/2014
- Rod Ticket HP 1006-16; 2/5/2014 Rod Ticket HP 1006-16,17 and 15A; 2/19/2014
- Radiographic Reader Sheet Report 14-016; HP-1006-16; 2/6/2014
- ASME Weld Data Record; HPCS Weld (no. 15a); 2/19/2014
- ASME Weld Data Record; HPCS Weld (no. 17); 2/19/2014
- Magnetic Particle Examination Data Sheet- HPCS Weld No 16; 2/4/2014

Working Documents:
- Report No. BWRVIP-250NP; BWR Vessel and Internals Project Testing and Evaluation of the LaSalle Unit 1 120° Surveillance Capsule; October 2011
- Report No. L1R14-UT-007; LCS-1-N4A Nozzle-to-Shell Weld Indications; 2/28/2012
- Report No. L1R14-UT-010; LCS-1-N4D Nozzle-to-Shell Weld Indications; 2/23/2012
- Report No. L1R14-UT-011; LCS-1-N4E Nozzle-to-Shell Weld Indications; 2/28/2012
- Report No. L1R15-MT-004; ISI-LP-1013 (LP02-1052x); 2/13/2014
- Report No. L1R15-UT-011; ISI-MS-1003-03; 2/12/2014
- Report No. L1R15-UT-012; ISI-MS-1004-09; 2/12/2014
- Report No. L1R15-UT-013; ISI-MS-1002-16; 2/12/2014
- Report No. L1R15-UT-014; ISI-MS-1003-26; 2/12/2014
- Report No. L1R15-UT-021; ISI-FW-1001-20; 2/14/2014
- Report No. L1R15-UT-004; ISI-MS-1004-03; 2/12/2014
- Standing Order; Unit 1 P-T Limit Curve; Rev. 2
- Welder Qualification Record, Welder L4540; 12/2/2013
- Welder Qualification Record, Welder 41; 11/17/2013
- Welder Qualification Record, Welder 03622; 10/1/2013
- WO 00652723-2; Remove Surveillance Capsule Holder From U1 Reactor Vessel; 2/12/2010
- WO 01635336-05; HPCS Elbow Replacement; Rev. 0

1R13 Maintenance Risk Assessments and Emergent Work Control

Procedures:
- OU-LA-104; Shutdown Safety Management Program; Rev. 17

Working Documents:
- L1R15 Refueling Outage Turnover, Day 5; 2/15/2014
- Operator Log Entries Report; 2/14/2014 – 2/15/2014
- OP-LA-108-117-1000; Protected Equipment Log; Sheet ‘04’ for Contingency Plan for Loss of 0PL12J Fuel Pool Cooling, protecting 0PS12J, Control Power and FC System Components; 2/2014
- OU-LA-104; Attachment 4, Shutdown Safety Approval for L1R15, Log 03; 10/21/2013

Miscellaneous:
- Weather Channel, Marseilles, IL Local Weather Alert, High Wind Warning for LaSalle, IL; 2/20/2014

1R15 Operability Determinations and Functional Assessments

Action Requests:
- 1624323; Pipe Nipple Leaking at Union of ‘R’ SRV Flex Hose
- 1638218; Missed Opportunity

- 1637958; A VE Compressor Has A Leak on the Suction Line

Miscellaneous:
- AR 1532119; Root Cause Investigation Report 1C Safety Relief Valve (SRV) Failure to Close; 8/13/2013
- EC 297098; Main Steam Safety Relief Valve Discussion of L1R15 As Found Conditions and Documentation of a Corporate Engineering Conference Call; Rev. 000
- EC 297098; Special Topic #1: SRV Testing and As-Found Inspection Results; 1st quarter 2014
- LSCS-UFSAR 5.2; Safety Design Bases; Rev. 14

1R18 Plant Modifications

Miscellaneous:
- RIC 2010 Slide Show; Plant Experience for Implementation of Risk-Informed Technical Specification Initiative 5b on Surveillance Frequency Control Program; 3/11/2010
- LUCR 269; LaSalle Unit 2 Change Request for Surveillance Testing Regulation; 11/13/2012
- L12-196; 50.59 Screening for UFSAR Update LUCR 269, Revision to UFSAR Appendix B Regulatory Guide 1.9 – Rev. 3 Commitments; Rev. 0
- B.0-8; Regulatory Guide LS – Rev. 1R Personnel Selection and Training; Rev. 18
- B 3.8.1-34; Surveillance Requirements; Rev. 42
- LSCS-UFSAR 3.1-15; Evaluation Against Criterion 18 – Inspection and Testing of Electric Power Systems; Rev. 13
- RG 1.9: Regulatory Guide: Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants; Rev. 3

1R19 Post-Maintenance Testing

Action Requests:
- 1171555; E SRV Non-ADS Accumulator Check Valve Needs Repair
- 1171578; E SRV ADS Accumulator Check Valve Needs Repair
- 1171718; E SRV Non-ADS Accumulator Check Valve Needs Repair
- 1171788; 1B21-A004E Non-ADS Accumulator Did Not Pass LOS-MS-R7
- 1180802; “L” SRV Actuator Did Not Initially Move During Testing
- 1180823; “C” SRV Actuator Also Closed When “U” C/S Taken to AUTO
- 1180927; Non-ADS “F” SRV Failed Pressure Drop Test
- 1181386; Response to IR’s 1178096 and 1178099 SRV MSO EC Incorrect
- 1303664; Replace 1B21-F040E ADS Check Valve
- 1332531; 1B21-F013E SRV Non-ADS Accumulator Pressure Drop Test Failed
- 1348220; SRV Nitrogen Bubble Testing Enhancement
- 1358051; Replace 2B21-F036E Non-ADS Accumulator Check Valve
- 1428087; NRC RFI 2.3 Seismic Walkdowns Deferred to L1R15
- 1479368; 2B21-F036P SRV Indicates Leakage By Seat In LOS-MS-R7
- 1479545; 2B21-F013U Significant Air Leak During LOS-MS-R7
- 1503454; 2C SRV Did Not Open When MCR Control Switch Placed In Open
- 1622598; Main Steam SRV Test Results for L1R15
- 1622619; Perform Borescope of MOV Motor 1E12-F008 in L1R17
- 1622710; Failed Seat Leakage Test

Working Documents:

- WO 1115078; Unit 1 Main Steam Safety Relief Valve Operability
- WO 1309861-01; M2 1E12-F0008 Decon Stem
- WO 1331402; Unit 1 Main Steam Safety Relief Valve Operability
- WO 1380967; OP Perform LST-2011-024 (Encompasses LOS-MS-R7) PMT EC 380784
- WO 1519879-01; EP 1E12-F008 / 1E12-F460 HP Water Test – LTS-900-7
- WO 1560927; Unit 1 Main Steam Safety Relief Valve Operability

Miscellaneous:
- Operator Log Entries, Search Criteria "1E12-F008"; 2/14/2014- 2/19/2014

1R20 Outage Activities

Procedures:
- LGP-2-1; Normal Unit Shutdown; Rev. 100
- LS-AA-119; Fatigue Management and Work Hour Limits

Action Requests:
- 1619543; Drywell Walkdown with NRC
- 1619941; RM-Lost Position Indication for Rod 38-07
- 1621088; Fuel Pool Level Control Improvements Needed
- 1622966; WHR – Work Hour Rule Administrative Deviation
- 1623215; RM-L1R15 FME at Base of JP 11
- 1623222; RM-L1R15 FME at Base of Jet Pump 4
- 1623227; RM-L1R15 FME at Base of Jet Pumps 15-16
- 1623241; RM-L1R15 FM On Shroud and JP 15
- 1623342; L1R15 LLRT 1G33-F001 Above Warning Limit Below Alarm Limit
- 1623391; Valve Failed Final Seat Leakage Test
- 1623401; WHR – Work Hour Rule Administrative Deviation
- 1623997; WHR – Work Hour Rule Administrative Deviation
- 1624829; NOS ID: Wrong Procedure Revision

Working Documents:
- Work Hours Logs for Operations Personnel; 2/3/2014 – 2/26/2014

Miscellaneous:
- Load Profile Graph for L1C15; 2/9/2014
- L1R15 Startup PORC 14-005a; 2/24/2014

1R22 Surveillance Testing

Procedures:
- ER-AA-425; Implementation of the Technical Specification Surveillance Frequency Control Program; Rev. 0
- ER-AA-425-1002; Training and Reference Material: Engineering Evaluation of Proposed Surveillance Test Interval Changes; Rev. 0
- ER-AA-425-1003; Surveillance Frequency Control Program – Integrated Decisionmaking Panel (IDP) Roles and Responsibility; Rev. 0
- ER-AA-425-1004; Implementing an Approved Surveillance Frequency Change; Rev. 0
- ER-AA-425-1005; Monitoring the Effects of Changes to the Surveillance Frequency Control Program (SFCP); Rev. 0

- LOS-AA-W1; Attachment 1D Unit One Technical Specification Weekly Offsite Power Lineup Verification; Rev. 73
- LOS-AA-W1; Attachment 2D Unit Two Technical Specification Weekly Offsite Power Lineup Verification; Rev. 73
- LOS-DG-R1A; 1A Diesel Generator, 1DG01K Twenty-Four Hour Run Surveillance; Rev. 23
- LS-AA-107-1001; UFSAR Update T&RM (Training and Reference Material); Rev. 4
- LTS-100-43; RHR Loop A/B Valves Local Leak Rate Test 1(2) E123-F042A/B; Rev.27

Action Requests:
- 1619387; LLRT 'A' & 'C' MSIV Tests Over Warning Limit
- 1620572; L1R15 1VQ034/35 LLRT Exceeds Admin Alarm Limit

Figures and Drawings:
- M-96; P & ID; Residual Heat Removal System (R.H.R.S); Rev. AV

Working Documents:
- TS LOS-DG-R1A; Tech Spec Surveillance, Unit 1, Diesel Generator "1A" 24 hr Run Surv.; 4/13/2014
- WO 1514602-01; EP LLRT, 1B21-F022C, 1B21-F028C, 1B21-F067C Per LTS-100-3; 9/3/2013
- WO 1523049-02; PMT – U1 RCIC System Functional and Leak Checks (R3-150#) JBR
- WO 1524245-01; LOS-RI-R3 RCIC Operability Att. 1A; 2/27/2014

Miscellaneous:
- Amendment Nos. 200 (Unit 1), 187 (Unit 2); LaSalle County Station, Units 1 and 2 – Issuance of Amendments Regarding Risk-Informed Justification for the Relocation of Specific Surveillance Frequency Requirements to a Licensee-Controlled Program (TAC NOS. ME3363 and ME3364); 2/24/2011
- ANSI / IEEE Std 387-1984; IEEE Standard Criteria for Diesel-Generator Units Applied as Standby Power Supplies for Nuclear Power Generating Stations; 11/21/1984
- B 3.8.1-34; Surveillance Requirements; Rev. 42
- B.0-8; Regulatory Guide LS – Rev. 1R Personnel Selection and Training; Rev. 18
- L12-196; 50.59 Screening for UFSAR Update LUCR 269, Revision to UFSAR Appendix B Regulatory Guide 1.9 – Rev. 3 Commitments; Rev. 0
- LSCS-UFSAR 3.1-15; Evaluation Against Criterion 18 – Inspection and Testing of Electric Power Systems; Rev. 13
- LSCS-UFSAR Table 6.2; Containment Leakage Testing; Rev. 19
- LUCR 269; LaSalle Unit 2 Change Request for Surveillance Testing Regulation; 11/13/2012
- PORC 14-002; Surveillance Test Interval LA-13-003 - Change Frequency of Technical Specification Surveillance Requirement 3.8.1.13 for the 1B Diesel Generator from 24 Months to 48 Months; 1/21/2014
- RG 1.9: Regulatory Guide: Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants; Rev. 3
- RIC 2010 Slide Show; Plant Experience for Implementation of Risk-Informed Technical Specification Initiative 5b on Surveillance Frequency Control Program; 3/11/2010
- STI Eval LA-13-003; Change Frequency of Technical Specification Surveillance Requirement 3.8.1.13 for the 1B Diesel Generator from 24 Months to 48 Months, LES-DG-104 / Rev. 003; 1/10/2014

2RS1 Radiological Hazard Assessment and Exposure Controls

Procedures:
- RP-AA-460; Controls for High and Locked High Radiation Areas; Rev. 25
- RP-AA-700; Controls for Radiation Protection Instrumentation; Rev. 3
- RP-LA-300-1007 F05; U-1 HPCS Reverse Flush; Revs. 0 and 1

Action Requests:
- 1597547; Background Spiking During Downpower; 12/16/2013
- 1620251; Radiochemistry Calibration Source Certificate Issue; 2/12/2014
- 1618113; Need HRA Core Installed on 820 U1 & U2; 2/6/2014
- 1620452; U-2 Rx 710' Elevation LHRA Enhancement; 2/12/2014
- 1620962; U-1 Drywell Dose Rates Elevated; 2/13/2014
- 1620371; Portal Monitor Daily Source Check Not Completed; 2/12/2014

Miscellaneous:
- RWP 10015573 and Associated ALARA Files; L1R15 Under-Vessel Prep, Setup, Demobilization
- RWP 10015609 and Associated ALARA Files; L1R15 Rx Vessel Disassembly/Reassembly
- RWP 10015621 and Associated ALARA Files; L1R15 Insulation Activities (No Drywell)

2RS2 Occupational ALARA Planning and Controls

Miscellaneous:
- RWP 10015573 and Associated ALARA Files; L1R15 Under-Vessel Prep, Setup, Demobilization
- RWP 10015609 and Associated ALARA Files; L1R15 Rx Vessel Disassembly/Reassembly
- RWP 10015621 and Associated ALARA Files; L1R15 Insulation Activities (No Drywell)

2RS3 In-Plant Airborne Radioactivity Control and Mitigation

Procedures:
- LAP-900-47; Monthly EP/Hazmat Respirator Inspection; Rev. 5
- RP-AA-302; Determination of Alpha Levels and Monitoring; Rev. 6
- RP-AA-825; Maintenance, Care, and Inspection of Respiratory Protective Equipment; Rev. 6

Miscellaneous:
- Check-in Self-Assessment; AR 1576184-02; Pre-NRC Inspection Check-in; 1/8/2014
- RP-LA-825-1002; Attachment 2; MSA SCBA Inspection Checklist; Regulator Number AOAB277617; Pack 45; Various Dates Between April 2012 and March 2014
- RP-LA-825-1002; Attachment 2; MSA SCBA Inspection Checklist; Regulator Number AOAB277670; Pack 40; Various Dates Between April 2012 and March 2014
- RP-LA-825-1002; Attachment 2; MSA SCBA Inspection Checklist; Regulator Number AOAB277657; Pack 27; Various Dates Between May 2012 and March 2014
- RP-LA-825-1002; Attachment 2; MSA SCBA Inspection Checklist; Regulator Number AOAB277608; Pack 5; Various Dates Between April 2012 and March 2014
- RP-LA-826; Attachment 4 and Associated Data; Breathing Air Surveillance Data Sheet; 2/10/2014
- RP-LA-826; Attachment 4 and Associated Data; Breathing Air Surveillance Data Sheet; 10/30/2013

- RP-LA-826; Attachment 4 and Associated Data; Breathing Air Surveillance Data Sheet; 4/25/2012
- RP-LA-826; Attachment 4 and Associated Data; Breathing Air Surveillance Data Sheet; 10/28/2011
- Posi3 USB Test Results; Complete SCBA Test; Pack 40; 6/18/2012
- Posi3 USB Test Results; Complete SCBA Test; Pack 45; 6/18/2012
- Posi3 USB Test Results; Complete SCBA Test; Pack 5; 6/20/2012
- Posi3 USB Test Results; Complete SCBA Test; Pack 27; 6/21/2012
- Posi3 USB Test Results; Complete SCBA Test; Pack 27; 7/15/2013
- Posi3 USB Test Results; Complete SCBA Test; Pack 5; 7/15/2013
- Posi3 USB Test Results; Complete SCBA Test; Pack 40; 7/16/2013
- Posi3 USB Test Results; Complete SCBA Test; Pack 45; 7/16/2013

2RS4 Occupational Dose Assessment

Procedures:
- RP-AA-11; External Dose Control Program Description; Rev. 1
- RP-AA-201; Access to the RCA for Escorted Visitors; Rev. 4
- RP-AA-203; Exposure Control and Authorization; Rev. 3
- RP-AA-203-1001; Personnel Exposure Investigations; Rev. 7
- RP-AA-210; Dosimetry Issue, Usage, and Control; Rev. 22
- RP-AA-211; Personnel Dosimetry Performance Verification; Rev. 10
- RP-AA-220; Bioassay Program; Rev. 9
- RP-AA-270; Prenatal Radiation Exposure; Rev. 6

Action Requests:
- 1220437; Perform and Document Sensitivity Study of Whole Body Monitors; 9/29/2011
- 1614964; REMS Computers in NSB not Logging Users In or Out of RCA; 1/30/2014

Miscellaneous:
- Check-in Self-Assessment; AR 1576184-02; Pre-NRC Inspection Check-in; 1/8/2014
- National Voluntary Laboratory Accreditation Program (NVLAP) Certification; NVLAP Lab Code 100518-0; Landauer Inc.; Effective Dates 1/1/2014 Through 12/31/2014
- RP-AA-203-1001; Attachment 1; Personnel Exposure Investigation; PEI 13-432; 11/1/2013
- RP-AA-203-1001; Attachment 1; Personnel Exposure Investigation; PEI 13-431; 10/2/2013
- RP-AA-203-1001; Attachment 1; Personnel Exposure Investigation; PEI 13-112; 3/12/2013
- RP-AA-203-1001; Attachment 1; Personnel Exposure Investigation; PEI 13-115; 3/19/2013
- RP-AA-203-1001; Attachment 1; Personnel Exposure Investigation; PEI 13-111; 3/19/2013
- RP-AA-203-1001; Attachment 1; Personnel Exposure Investigation; PEI 13-19; 2/18/2013
- RP-AA-203-1001; Attachment 1; Personnel Exposure Investigation; PEI 13-45; 2/18/2013

4OA1 Performance Indicator Verification

Procedures:
- LS-AA-2001; Collecting and Reporting of NRC Performance Indicator Data; Rev. 14

Action Requests:
- 1542247; RCR For White NRC PI For Unplanned Scrams with Complications

Miscellaneous:
- NEI99-02; Nuclear Energy Institute Regulatory Assessment Performance Indicator Guideline; Rev. 7
- LS-AA-2030; Monthly Data Elements for NRC Unplanned Power Changes per 7000 Critical Hours; January through December 2013
- LS-AA-2010; Monthly Data Elements for NRC/WANO Unit/Reactor Shutdown Occurrences; January through December 2013

4OA2 Identification and Resolution of Problems

Procedures:
- NF-AA-430; Failed Fuel Action Plan; Rev. 12

Action Requests Generated from NRC or IEMA Inspection:
- 1610485; IEMA Question on DG Room Egress With High DP
- 1612179; IEMA Question on "0" DG Gauge Calibrations
- 1613599; IEMA Comments 1B DG T&TB Test Frequency Extension
- 1619342; IEMA Concern over Work Scheduling Date of 2FC050A
- 1619543; Drywell Walkdown with NRC
- 1620908; IDNS Questions on FP Surveillance Testing
- 1623438; IEMA ID: Wrong Revision of LTS-100-50 in Use in Field
- 1623488; NRC Id'd: Observation Regarding ACE Investigation
- 1625505; IEMA Question on Verification of Current Procedure Revision
- 1626925; NRC Drywell Close Out Inspection Summary

Miscellaneous:
- IR 1563645; OP-AA-106-101-1006; Issue Resolution: Unit 2 Offgas; 12/6/2013
- IR 1601318; Root Cause Report: Fuel Degradation Caused by Debris Fretting in L2C14; 2/6/2014
- Plan of the Day: U2 Offgas Pretreatment Noble Gas Sum of Six Chart; 1/30/2014

4OA3 Followup of Events and Notices of Enforcement Discretion

Licensee Event Report:
- LER 05000374-2013-005-00; Technical Specification Required Shutdown Due to Pressure Boundary Leakage; 4/27/2013

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
ALARA	As-Low-As-Is-Reasonably-Achievable
AR	Action Request (also known as Issue Report)
ASME	American Society of Mechanical Engineers
BWR	Boiling Water Reactor
BWRVIP	Boiling Water Reactor Vessel and Internals Program
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CIV	Containment Isolation Valve
DC	Direct Current
DG	Diesel Generator
ECCS	Emergency Core Cooling System
EFPY	Effective Full Power Years
EPRI	Electric Power Research Institute
HPCS	High Pressure Core Spray
IEEE	Institute of Electrical and Electronics Engineers
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
ISI	Inservice Inspection
IST	Inservice Testing
LER	Licensee Event Report
LLC	Limited Liability Corporation
LLRT	Local Leak Rate Testing
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulation
PARS	Publicly Available Records System
PI	Performance Indicator
PI&R	Problem Identification and Resolution
PMT	Post-Maintenance Testing
P/T	Pressure/Temperature
RCIC	Reactor Core Isolation Cooling
RCS	Reactor Coolant System
RFO	Refueling Outage
RG	Regulatory Guide
RHR	Residual Heat Removal
RP	Radiation Protection
RV	Reactor Vessel
RWP	Radiation Work Permit
SCBA	Self-Contained Breathing Apparatus
SDP	Significance Determination Process
SL	Severity Level
SRV	Safety Relief Valve
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
WO	Work Order

Additionally, as we informed you in the most recent NRC integrated inspection report, cross-cutting aspects identified in the last six months of 2013 using the previous terminology were being converted in accordance with the cross-reference in Inspection Manual Chapter (IMC) 0310. Section 4OA5 of the enclosed report documents the conversion of these cross-cutting aspects, which will be evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305 starting with the 2014 mid-cycle assessment review. If you disagree with the cross-cutting aspect assigned, 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.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Michael Kunowski, Chief
Branch 5
Division of Reactor Projects

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

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Letter to Mr. Michael Pacilio from Mr. Michael Kunowski dated April 25, 2014

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2
NRC INTEGRATED INSPECTION REPORT 05000373/2014002;
05000374/2014002

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