



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
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LISLE, IL 60532-4352

May 10, 2016

Mr. Bryan C. Hanson
Senior VP, Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2—NRC INTEGRATED
INSPECTION REPORT 05000373/2016001; 05000374/2016001

Dear Mr. Hanson:

On March 31, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your LaSalle County Station, Units 1 and 2. On April 14, 2016, the NRC inspectors discussed the results of this inspection with Mr. W. Trafton, and other members of your staff. The results of this inspection are documented in the enclosed report.

Based on the results of this inspection, the NRC inspectors documented one finding of very low safety significance (Green) in this report. This finding involved a violation of NRC requirements. The NRC is treating this violation as non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violation or significance of this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to: (1) the Regional Administrator, Region III; (2) the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and (3) the NRC Resident Inspector at the LaSalle County Station.

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

B. Hanson

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In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," 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's Public Document Room or from the Publicly Available Records System (PARS) component of the 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/

Billy Dickson, Chief
Branch 5
Division of Reactor Projects

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

Enclosure:
IR 05000373/2016001; 05000374/2016001

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000373/2016001; 05000374/2016001

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: Marseilles, IL

Dates: January 1, 2016 – March 31, 2016

Inspectors: R. Ruiz, Senior Resident Inspector
J. Robbins, Resident Inspector
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Approved by: B. Dickson, Chief
Branch 5
Division of Reactor Projects

Enclosure

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SUMMARY

Inspection Report 05000373/2016001, 05000374/2016001; 01/01/2016–03/31/2016; LaSalle County Station, Units 1 & 2; Problem Identification and Resolution

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. One Green finding was identified by the inspectors. The finding involved a non-cited violation (NCV) of the U.S. Nuclear Regulatory Commission (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 April 29, 2015. Cross-cutting aspects are determined using IMC 0310, "Aspects Within the Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated February 4, 2015. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," dated February 2014.

Cornerstone: Barrier Integrity

Green. A finding of very low safety significance and an associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was self-revealed for the licensee's failure to verify zero differential pressure across the jet pump plug seals prior to plug removal, an activity affecting quality, in a manner that was appropriate to the circumstances regarding timeliness of the removal. The verification was required by steps 6.13.1 and 6.12 of work orders (WO) 1747359-03 and 1804383-05, respectively. The licensee entered this issue into their CAP as action requests 2466339 and 2508333. Corrective actions planned and completed include performed additional analysis and testing of jet pump plug tooling, revised procedures/work instructions, and planned upgrades to the jet pump plug tooling to increase the margins associated with the forces required to displace the seal from the plug.

The performance deficiency was determined to be more than minor because if left uncorrected, it had the potential to become a more significant safety concern. Specifically, the robust physical characteristics of the plugs were such that, if unrecovered and unmitigated, coolant flow through certain peripheral fuel assembly orifices could have become blocked by the plugs and potentially led to fuel melt. The inspectors evaluated the finding in accordance with IMC 0609, "Significance Determination Process," Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Initial Screening and Characterization of Findings." Under Exhibit 4, "Barrier Integrity Screening Questions," the inspectors answered "No" to all of the screening questions. Therefore, this issue screened as having 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 planning, controlling, and executing work activities such that nuclear safety was the overriding priority—as evidenced by the in-field staff verifying zero differential pressure, but then delaying plug removal due to conflicting activities (e.g., shift turnover). As a result, plug removal was later recommenced without re-verifying that conditions had not changed in the intervening period [IMC 0310, H.5]. (Section 4OA2)

REPORT DETAILS

Summary of Plant Status

Unit 1:

The unit began the inspection period operating at full power. On January 9, 2016, power was reduced to approximately 83 percent to perform a control rod sequence exchange. The unit was returned to full power later that day. On January 11, 2016, the unit began coasting down at the end of the fuel cycle when the reactor was no longer capable of maintaining full power, until reaching the refueling outage. On February 14, 2016, Unit 1 began down-powering in preparation for refueling outage L1R16, which began on February 15, 2016, when the unit was disconnected from the grid. On March 8, 2016, following completion of the outage, the reactor was restarted, reached criticality but then inadvertently went subcritical. Upon the loss of criticality, operators inserted control rods in accordance with procedures. On March 9, 2016, using a modified startup plan, the unit was restarted and reached Mode 1 without incident.

On March 11, 2016, when Unit 1 had reached approximately 31 percent power, the reactor recirculation (RR) pumps were shifted to high speed. Following upshift of the 1A RR pump, the licensee identified abnormal pressure indications from the pump seal and commenced an unplanned shutdown (forced outage L1F42) to address the issue. On March 16, 2016, following completion of the seal repair work of L1F42, the unit was restarted. Again, the unit had reached approximately 31 percent power when the 1B RR pump tripped during an attempt to upshift to high speed. Following troubleshooting and repair of 1B RR pump, power ascension continued until the unit reached full power on March 18, 2016.

On March 18, 2016, shortly after reaching full power, the 1B RR pump seal began to exhibit abnormal indications similar to the previous 1A RR pump issue. The licensee began a second unplanned shutdown of the unit (forced outage L1F43) later that day. Following replacement of both RR pump seals, the licensee commenced startup on March 21, 2016, and achieved full power on March 23, 2016. The unit remained at full power for the rest of the inspection period.

Unit 2

The unit began the inspection period operating at full power. On January 29, 2016, power was reduced to 85 percent due to an unexpected issue on the condensate system. The issue was resolved and the unit returned to full power later that day. On March 13, 2016, power was reduced to 85 percent due to an unexpected issue with the 26B high pressure heater. The issue was resolved and the unit returned to full power on March 14, 2016. On March 25, 2016, power was reduced to approximately 64 percent to perform a control rod sequence exchange. The unit was returned to full power on March 27, 2016, where it remained for the rest of the inspection period.

1. REACTOR SAFETY

Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Readiness for Impending Adverse Weather Condition—High Wind Conditions

a. Inspection Scope

Since high winds were forecast in the vicinity of the facility for February 19, 2016, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. On February 19, 2016, the inspectors walked down the licensee's emergency alternating current (AC) power systems, because their safety-related functions could be required as a result of high winds or tornado-generated missiles, or the loss of offsite power. The inspectors evaluated the licensee staff's preparations against the site's procedures and determined that the staff's actions were adequate. During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to respond to specified adverse weather conditions. The inspectors also toured the plant grounds to look for any loose debris that could become missiles during a tornado. The inspectors evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant. Additionally, the inspectors reviewed the Updated Final Safety Analysis Report (UFSAR) and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant specific procedures. The inspectors also reviewed a sample of corrective action program (CAP) items to verify that the licensee identified adverse weather issues at an appropriate threshold and dispositioned them through the CAP in accordance with licensee corrective action procedures.

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Semiannual Complete System Walkdown

a. Inspection Scope

On March 8, 2016, the inspectors performed a complete system alignment inspection of the Unit 1 residual heat removal (RHR) shutdown cooling system to verify the functional capability of the system. This system was selected because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment lineups; electrical power availability; system pressure and temperature indications, as appropriate; component labeling; component lubrication; component and equipment cooling; hangers and supports; operability of support systems; and to ensure that

ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding work orders (WOs) was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved.

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

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

- fire zone 7B3, common diesel generator room;
- fire zone 4E4, Unit 2, Division 2 essential switchgear room;
- fire zone 4E3, Unit 1, Division 2 essential switchgear room; and
- fire zone 7C5, Division 2 RHR service water pump room 674 ft. elevation, during hot work.

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

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

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

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

1R08 Inservice Inspection Activities (71111.08G)

From February 16, 2016, through February 19, 2016, the inspectors conducted a review of the implementation of the licensee's inservice inspection program for monitoring degradation of the reactor coolant system, risk significant piping and components, and containment systems.

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

.1 Piping Systems In-Service Inspection

a. Inspection Scope

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

- ultrasonic examination (UT) of main-steam elbow-to-pipe weld on IMS–1040–08;
- UT of main-steam pipe-to-valve weld on IMS–1046–14;
- UT of 68 reactor pressure vessel (RPV) studs, 1–STUD–01;
- UT of RPV stud holes 46–48, 1–FLANGE–46;
- magnetic particle examination of eight RHR lug welds, RH53–1012X;
- visual examination (VT)–3, of main-steam snubber M1127; and
- VT–3 of main-steam snubber, M1231.

The inspectors reviewed the following examination completed during the previous outage with relevant/recordable conditions/indications accepted for continued service to determine whether acceptance was in accordance with the ASME Code Section XI or an NRC–approved alternative.

- indication UT disposition rejected during pipe-to-valve weld (IFW–1002–20) examination (WO 01522414); and
- indication (Magnetic Particle) disposition rejected during lug weld (RH53–1002C) examination (WO 01522414).

The inspectors reviewed records for the following pressure boundary weld repairs completed for risk significant systems during the last outage to determine if the licensee applied the pre-service non-destructive examinations and acceptance criteria required by the Construction Code, and/or the NRC-approved code relief request. Additionally, the inspectors reviewed the welding procedure specifications and supporting weld procedure qualification records to determine whether the weld procedures were

qualified in accordance with the requirements of the Construction Code and the ASME Code, Section IX.

- install FLEX line, 1RH72BC-6" to line 1RH59AB-16", RHR (WO 1695401); and
- install FLEX line, 1RH72B-6" to line 1RH59AA-16", RHR (WO 1849417).

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 inservice inspection-related problems entered into the licensee's CAP and conducted interviews with licensee staff to determine if:

- the licensee had established an appropriate threshold for identifying inservice inspection-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 inservice inspection and pressure boundary integrity.

The inspectors performed these reviews to evaluate compliance with Title 10, *Code of Federal Regulations* (CFR), Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements.

The documents reviewed are listed in the Attachment to this report.

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification Program (71111.11)

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

a. Inspection Scope

On March 29, 2016, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator regualification training. The inspectors verified that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and that training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;

- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate Technical Specification (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 71111.11-05.

b. Findings

No findings were identified.

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

a. Inspection Scope

On January 8, 2016, the inspectors observed the operators in the control room when the turbine lube oil temperature control valve was returned to automatic function. This was an activity that required heightened awareness and was related to increased risk. The inspectors evaluated the following areas:

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

The performance in these areas was compared to pre-established operator action expectations, procedural compliance and task completion requirements.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator heightened activity/risk sample as defined in IP 71111.11-05.

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:

- 345 kilovolt offsite power line 0101 work;
- increased risk due to high winds;
- Unit 2 motor-driven reactor feed pump seal leak event of March 8 and unplanned unavailability; and
- Unit 1 inadvertent subcriticality occurrence.

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

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

1R15 Operability Determinations and Functional Assessments (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- operability review for partial length rods issue;
- Unit 2 high pressure core spray with loss of 480V ventilation; and
- operability evaluation 12-003, revision 3 (Pool Swell).

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the

subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to the licensee's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors reviewed a sampling of CAP documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations.

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

(Opened) Unresolved Item 05000373; 05000374/2016001-01: Adequacy of Changes to Pool Swell Analysis

Introduction: The inspectors identified an unresolved item (URI) related to the licensee's changes to the assumptions in their design basis method of analysis associated with the pool swell calculation of record. The inspectors could not resolve the issue of concern during the inspection period due to the need for additional information.

Description: While reviewing the recent revision to operability evaluation 12-003, the inspectors identified an issue of concern regarding the licensee's changes to the assumptions of the design basis calculation of record for the loss of coolant accident suppression pool swell analysis. This operability evaluation assessed the effects of a previous error identified by the licensee in the design calculation and incorporated additional changes in the design assumptions which resulted in the recapture of significant amount of margin in the analysis. Specifically, the licensee changed the initial blowdown characteristics from all air to an air/steam mixture, which improved the margin of the analysis. The inspectors are evaluating the changes against the guidance of IMC 0326, "Operability Determinations & Functionality Assessments for Conditions Adverse to Quality or Safety." Additionally, the inspectors are reviewing whether or not regulatory relief was/is required to be sought by the licensee from the NRC for the ASME Code requirement per the guidance in IMC 0326.

The inspectors are opening this URI because more information/guidance is needed from the NRC Headquarters Office of Nuclear Reactor Regulation to determine if this issue of concern represents a violation of regulatory requirements. **(URI 05000373; 05000374/2016001-01: Adequacy of Changes to Pool Swell Analysis).**

1R18 Plant Modifications (71111.18)

.1 Plant Modifications

a. Inspection Scope

The inspectors reviewed the permanent modification of the design and licensing basis pertaining to partial length rods. The inspectors reviewed the configuration changes and

associated 10 CFR 50.59 safety evaluation screening against the design basis, the UFSAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of the affected systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with engineering staff 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 constitute one permanent plant modification sample as defined in IP 71111.18-05.

b. Findings

(Opened) Unresolved Item 05000373; 05000374/2016001-02: Partial Length Rods Exceeded Burnup Limit in Design Basis Method of Analysis

Introduction: The inspectors identified an URI related to the licensee's use of partial length fuel rods beyond the burnup limit specified in their design basis method of analysis. The inspectors could not resolve the issue of concern during the inspection period due to the need for additional information.

Description: In action request (AR) 01647125, Exelon-corporate identified a concern with the potential excessive exposure in partial length rods for LaSalle Unit 1 Cycle 16. This issue also affects the core design of the current Unit 2 cycle. Subsequently, AR 02537519 was written to document the condition as it relates to the Regulatory Guide (RG) 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors", July 2000. Footnote 11 of the RG, provides an applicability limitation of 62,000 megawatt days per metric ton of uranium for non-loss-of-coolant accident gap release fractions specified in Table 3 of the RG. This RG is the licensee's NRC-approved method of analysis for alternate source term as described in the LaSalle UFSAR, and is therefore a part of the licensee's design and licensing basis. With this proposed change to the application of RG 1.183, the licensee performed a 50.59 evaluation to review the potential impact of partial length rods operating above 62,000 megawatt days per metric ton of uranium burnup to determine if prior NRC approval was necessary to implement the change.

The inspectors have reviewed the licensee's 50.59 evaluation, FCP 397411, Revision 1, and calculation, L-003067, Revision 2C, and have identified an issue of concern. Specifically, the licensee concluded that prior NRC review and approval were not needed to operate its fuel in a manner that deviated from the limitations delineated within the NRC-approved methodology of RG 1.183 in their current licensing basis. The inspectors are opening this URI because more information/guidance is needed from the NRC Headquarters Office of Nuclear Reactor Regulation to determine if this issue of concern represents a violation of regulatory requirements. **(URI 05000373; 05000374/2016001-02: Partial Length Rods Exceeded Burnup Limit in Design Basis Method of Analysis).**

1R19 Post-Maintenance Testing (71111.19)

.1 Post-Maintenance Testing

a. Inspection Scope

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

- Unit common diesel generator cooling water strainer following replacement & weld repairs;
- Unit 1 reactor core isolation cooling (RCIC) following maintenance (low pressure testing/reduced flow);
- valve 1E12–F050A, following maintenance; and
- Unit 1 RCIC, following maintenance (normal pressure and full flow).

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 TSSs, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed CAP documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted four post-maintenance testing 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 refueling outage, conducted February 15, 2016, thru March 8, 2016, 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 refueling outage, the inspectors observed portions of the shutdown and cooldown processes and monitored licensee controls over the outage activities listed below:

- licensee configuration management, including maintenance of defense-in-depth commensurate with the outage safety plan for key safety functions and compliance with the applicable TS when taking equipment out of service;
- implementation of clearance activities and confirmation that tags were properly hung and equipment appropriately configured to safely support the work or testing;
- installation and configuration of reactor coolant pressure, level, and temperature instruments to provide accurate indication, accounting for instrument error;
- controls over the status and configuration of electrical systems to ensure that TS and outage safety plan requirements were met, and controls over switchyard activities;
- monitoring of decay heat removal processes, systems, and components;
- controls to ensure that outage work was not impacting the ability of the operators to operate the spent fuel pool cooling system;
- reactor water inventory controls including flow paths, configurations, and alternative means for inventory addition, and controls to prevent inventory loss;
- controls over activities that could affect reactivity;
- maintenance of secondary containment as required by TS;
- licensee fatigue management, as required by 10 CFR 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 suction strainers, and reactor physics testing; and
- licensee identification and resolution of problems related to refueling outage activities.

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

.2 Other Outage Activities – L1F42

a. Inspection Scope

The inspectors evaluated outage activities for an unscheduled outage (L1F42) that began on March 11, 2016, and continued through March 16, 2016. The inspectors reviewed activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

The inspectors observed or reviewed the reactor shutdown and cooldown, outage equipment configuration and risk management, electrical lineups, selected clearances,

control and monitoring of decay heat removal, control of containment activities, personnel fatigue management, startup and heatup activities, and identification and resolution of problems associated with the outage. The inspectors also observed and reviewed troubleshooting and repair activities associated with the 1A reactor recirculation pump seal. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one other outage sample as defined in IP 71111.20–05.

b. Findings

No findings were identified.

.3 Other Outage Activities – L1F43

a. Inspection Scope

The inspectors evaluated outage activities for an unscheduled outage (L1F43) that began on March 18, 2016, and continued through March 21, 2016. The inspectors reviewed activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

The inspectors observed or reviewed the reactor shutdown and cooldown, outage equipment configuration and risk management, electrical lineups, selected clearances, control and monitoring of decay heat removal, control of containment activities, personnel fatigue management, startup and heatup activities, and identification and resolution of problems associated with the outage. The inspectors also observed and reviewed replacement activities associated with the reactor recirculation pump seals. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one other outage sample as defined in IP 71111.20–05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

a. Inspection Scope

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

- WO 01870162; station vent main stack wide range monitor [Routine];
- WO 01678793, reactor water cleanup pump suction high flow inboard isolation channel testing [Routine];
- high pressure core spray response time testing [Routine];
- WO 01537478, disassemble and inspect RCIC valve for inservice test condition monitoring [Containment Isolation Valve]; and

- Division I response time test surveillance frequency changes [Inservice Test].

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

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency was in accordance with TSs, the UFSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, 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 sample and one inservice test sample as defined in IP 71111.22-02 and -05.

b. Findings

No findings were identified.

2. RADIATION SAFETY

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

.1 Radiological Hazard Assessment (02.02)

a. Inspection Scope

The inspectors assessed whether changes to the licensee's radiological profile due to operating protocols, primary chemistry changes, and plant modifications were adequately addressed in the licensee's Radiation Protection Survey Program.

These inspection activities constituted one sample as defined in IP 71124.01-05

b. Findings

No findings were identified.

.2 High Radiation Area and Very-High Radiation Area Controls (02.06)

a. Inspection Scope

The inspectors observed the physical controls for high radiation areas and very-high radiation area. The inspectors ensured the controls prevented an individual from gaining unauthorized access to very-high radiation areas.

These inspection activities constituted one sample as defined in IP 71124.01-05

b. Findings

No findings were identified.

.3 Radiation Worker Performance and Radiation Protection Technician Proficiency (02.07)

a. Inspection Scope

The inspectors observed radiation workers and radiation protections technicians to assess whether they were aware the radiological conditions in their workplace and whether their performance reflected the radiological hazards that were present.

These inspection activities constituted one sample as defined in IP 71124.01-05

b. Findings

No findings were identified.

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

.1 Radiological Work Planning (02.02)

a. Inspection Scope

The inspectors evaluated whether radiological work planning as-low-as-reasonably-achievable (ALARA) evaluations properly identified appropriate

dose reduction techniques were integrated into to work procedure and/or radiation work permits.

The inspectors assessed whether the results achieved were aligned with the intended work activities. The inspectors also evaluated whether lessons learned from post-job reviews were identified and entered into the licensee's CAP.

These inspection activities constituted one sample as defined in IP 71124.02–05

b. Findings

No findings were identified.

.2 Implementation of As-Low-As-Reasonably-Achievable and Radiological Work Controls (02.04)

a. Inspection Scope

The inspectors observed in-plant work to assess whether the planned the radiological administrative, operational, and engineering controls were discussed during pre-job briefs and implemented as intended. The inspectors assessed whether methods for tracking work in progress ensured prompt communications and actions to reduce dose. The inspectors reviewed emergent work activities to assess whether this work received an appropriate level of review from licensee management, ALARA staff, and the affected work group(s).

These inspection activities constituted one sample as defined in IP 71124.02–05

b. Findings

No findings were identified.

.3 Radiation Worker Performance (02.05)

a. Inspection Scope

The inspectors observed radiation worker and radiation protection technician performance during work activities being performed in radiation areas, airborne radioactivity areas, or high radiation areas to assess the ALARA philosophy as applied and whether the skill level displayed was sufficient with respect to the radiological hazards that were present. The inspectors interviewed individuals to assess their knowledge and awareness of planned and/or implemented radiological and ALARA work controls.

These inspection activities constituted one sample as defined in IP 71124.02–05

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

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

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 performance indicator (PI) for Units 1 and 2 for the period from the first quarter 2015 through the fourth quarter 2015. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports and NRC integrated inspection reports for the period of the first quarter 2015 through the fourth quarter 2015 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted two unplanned scrams 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 period from the first quarter 2015 through the fourth quarter 2015. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports and NRC Integrated Inspection Reports for the period of the first quarter 2015 through the fourth quarter 2015 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified.

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

.3 Unplanned Transients per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Transients per 7000 Critical Hours PI for Units 1 and 2 for the period from the first quarter 2015 through the fourth quarter 2015. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, maintenance rule records, event reports and NRC Integrated Inspection Reports for the period of the first quarter 2015 through the fourth quarter 2015 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified.

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

.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

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

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

b. Findings

No findings were identified.

.3 Annual Followup of Selected Issues: Root Cause Evaluation 2466339

(Closed) Unresolved Item 05000374/2015001-05; Loss of Jet Pump Plug Seals during L2R15

a. Inspection Scope

During a review of items entered in the licensee's CAP, the inspectors recognized a CAP item documenting the need to determine the root causes of the jet pump plug seal issue. As a result of the root cause evaluation conducted under AR 2466339, an additional root cause evaluation was initiated to explore the decision making processes associated with the lost seals. The licensee used formal decision making tools to facilitate the evaluation of potential solutions for complex issues. The second root cause evaluation was completed during the last quarter of 2015. One challenge that the licensee identified in the second root cause evaluation was that the entry conditions for some of the decision making processes required that staff recognized that decisions being made were complex or had potentially significant consequences. In the case of the lost seals, the licensee organization believed that a simple solution had been identified and that additional supporting evidence was needed in the form of a formal engineering product. During this additional engineering effort, details emerged which challenged previous assumptions. Specifically, licensee staff initially believed that the seal would break down or soften if held at elevated temperatures for a short duration. Additional testing and research revealed that the seals would break down only after significantly more time than previously assumed and after a period of irradiation. A startup plan was developed that would ensure that the seals were degraded and therefore nonconsequential prior to reaching elevated power levels.

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05. The finding below represents the closure of this URI.

b. Findings

Failure to Maintain Appropriate Work Instructions Led to Lost Parts in the Reactor Vessel

Introduction: A finding of very low safety significance and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed for the licensee's failure to verify zero differential pressure across the jet pump plug seals prior to tool removal, as required by step 6.12 of WO 1804383 and step 6.13.1 of WO 1747359-03, in a manner that was appropriate to the circumstances regarding timeliness of the removal.

Description: During the 2015 Unit 2 refueling outage (L2R15) and in support of planned maintenance on reactor recirculating pump isolation valves, several jet pump plugs were installed. Once installed, these plugs became a temporary reactor coolant system boundary. After installation, water would be drained from piping sections leading from the installed seals to the valves under maintenance. There were five seals for each jet pump plug. These plugs were evaluated for this function and found to be acceptable by the licensee in Engineering Change EC 381933, "Evaluate Work Order Tasks to Install RR Jet Pump Nozzle Plugs and RPV Outlet Nozzle Plug for Isolating the 2B RR Pump for Mechanical Seal Work." However, one seal was lost from jet pump plug #5 and two seals were lost from jet pump plug #14 after the removal of these plugs.

The inspectors reviewed both of the associated root cause reports performed by the licensee. The first report was "Loss of Jet Pump Plug Seals during L2R15," under AR 2466339 and the second was "Decision Making Related to the Foreign Material Integrity Event," performed under AR 2508333. The inspectors did not identify any concerns with respect to the licensee's conclusions reached in the reports.

The precise mechanism by which the seal became separated from the plug varied, but in each case, the forces applied to the seals exceeded the forces generated by the seal retaining device. The licensee's root cause evaluation determined that the failures were due to two causes. First, the design of the seal discs to assembly attachment lacked adequate margin to prevent unseating and separation of the seals when subjected to off normal conditions, such as a loss of vent during plug removal. Second, inadequate fill and vent of the affected piping sections resulted in differential pressure across the seals. During plug removal, the dynamic forces from the differential pressure unseated the seals from the jet pump plug assembly. The inspectors determined that a common factor of the licensee's performance for both jet pump plug seal losses was inadequate verification of zero differential pressure across the seals. The licensee verified zero differential pressure but then delaying plug removal due to conflicting activities such as shift turnover. Plugs removal was later recommenced without re-verifying that conditions had not changed in the intervening period.

On February 8, 2015, while performing WO 1804383-05, "RXS Install/Remove 'A' Loop Jet Pump Plugs – OPCC – MR90," and on February 18, 2015, while performing WO 1747359-03, "RXS Install/Remove 'B' Loop Jet Pump Plugs – OPCC – MR90" (activities affecting quality), licensee personnel failed to maintain a differential pressure of zero across the jet pump plug seals after performing steps 6.12 and 6.13.1 in the respective

work orders. The work instructions did not contain any specific requirements for the timeliness of performing these steps other than the term “Prior to [...] Jet Pump Plug removal.” The term “Prior to,” without any further guidance or clarifications drawing attention to the critical timing of this step, directly resulted in the combination of static head and dynamic forces that exceeded the capacity of the plug-retaining device and three seals were pulled off by the force and lost in the reactor vessel. The inspectors determined that this lack of specificity regarding timeliness was not appropriate to the circumstances.

Regarding the physical presence of the plugs in the reactor, the licensee worked with vendors and laboratories to perform analyses and tests to support the return to full-power operations by showing that the plugs had degraded sufficiently with time and irradiation-effects in the reactor to no longer pose a threat to blocking of fuel bundle flow. Additional details can be found in NRC integrated inspection report 05000373/2015002; 05000374/2015002 (ADAMS Accession No. ML15224B568).

Analysis: The inspectors determined that the lack of specific guidance regarding timeliness of the verification step of zero differential pressure with respect to the removal of the jet pump plug tool, was not appropriate to the circumstances as required by 10 CFR 50, App B, Criterion V, and was a performance deficiency.

The finding was determined to be more than minor because the finding, if left uncorrected, would become a more significant safety concern. Specifically, the durability and geometry of the seals were such that, if unrecovered and unmitigated, coolant flow through small fuel assembly orifices could have become blocked and potentially led to fuel melt. The inspectors concluded this finding was associated with the human performance attribute of the Barrier Integrity cornerstone.

The inspectors determined the finding could be evaluated in accordance with IMC 0609, “Significance Determination Process,” Appendix G, Attachment 1, “Shutdown Operations Significance Determination Process Phase 1 Initial Screening and Characterization of Findings.” This appendix was selected as it contains screening criteria developed specifically for shutdown operations. Under Exhibit 4, “Barrier Integrity Screening Questions,” the inspectors answered “No” to all of the screening questions. Therefore, this issue screens as having very low safety significance (Green).

This finding has a cross cutting aspect in the area of human performance, work management because the licensee did not implement a process of planning, controlling, and executing work activities such that nuclear safety is the overriding priority. This was evidenced by the example of in field staff verifying zero differential pressure but then delaying plug removal due to conflicting activities (e.g., shift turnover). As a result, plugs removal was later recommenced without re-verifying that conditions had not changed in the intervening period [IMC 0310, H.5].

Enforcement: Title 10 of the CFR, Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” requires, in part, that activities affecting quality be prescribed by documented instructions, procedures, and drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, and drawings. The licensee established WO 1804383 5, “RXS Install/Remove ‘A’ Loop Jet Pump Plugs – OPCC – MR90,” and WO 1747359–03, “RXS Install/Remove ‘B’ Loop Jet Pump Plugs – OPCC – MR90” as the implementing instructions/procedures for jet pump plug installation and removal, an activity affecting

quality. Steps 6.12 and 6.13.1 of the above respective WOs state “Prior to [“A”/“B”] Loop Jet Pump Plug removal, request Shift Manager to backfill [“A”/“B”] RR Loop to equalize the differential pressure across the plugs. Verify differential pressure across the plug is at zero.”

Contrary to the above, the work instructions in the above WOs did not contain any specific requirements for the timeliness of performing steps 6.12 or 6.13.1, other than the term “Prior to [...] Jet Pump Plug removal,” and were determined to be inappropriate to the circumstances. Specifically, the term “Prior to,” without any further guidance or clarifications drawing attention to the critical nature of the timing of these steps, directly resulted in the loss of the seals in the reactor vessel. On February 8, 2015, while performing WO 1804383 05, and on February 18, 2015, while performing WO 1747359 03 (activities affecting quality), licensee personnel failed to maintain a differential pressure of zero across the jet pump plug seal after performing steps 6.12 and 6.13.1 in the respective work orders due to the lack of specificity for the timing of execution.

The licensee entered this issue into their CAP as AR 2466339 and AR 2508333. Corrective actions planned and completed include performed additional analysis and testing of jet pump plug tooling, revised procedures/work instructions, and planned upgrades to the jet pump plug tooling to increase the margins associated with the forces required to displace the seal from the tool. Because the issue has been entered into the licensee’s CAP as ARs 2466339 and 2508333, this violation is being treated as an NCV consistent with Section 2.3.2 of the NRC Enforcement Policy. **(NCV 05000374/2016001–03, Failure to Maintain Appropriate Work Instructions Led to Lost Parts in the Reactor Vessel)**

40A5 Other Activities

.1 Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period (92723)

a. Inspection Scope

This inspection was conducted in accordance with IP 92723, “Follow Up Inspection for Three or More Severity Level (SL) IV Traditional Enforcement Violations in the Same Area in a 12-Month Period,” to assess the licensee’s evaluation of four SL IV violations that occurred within the area of impeding the regulatory process from January 1, 2015, to December 31, 2015. These violations were documented in NRC inspection reports as:

- (1) NCV 05000373/2015009–02; 05000374/2015009–02, Use of an Analytical Method to Determine the Core Operating Limits without Prior NRC Approval;
- (2) NCV 05000373/2015009–01; 05000374/2015009–01, Failure to Perform a Required 50.59 Evaluation;
- (3) NCV 05000373/2015002–04; 05000374/2015002–04, Failure to Include Limiting Conditions for Operation in the Technical Specifications; and
- (4) NCV 05000373/2015002–03; 05000374/2015002–03, Inadequate 10 CFR 50.59 Evaluation for Jet Pump Plugs Affecting Fuel Bundle Cooling

The inspection objectives were to provide assurance that:

- the licensee understood the causes of multiple SL IV traditional enforcement (TE) violations;
- the licensee identified the extent of condition and extent of cause of multiple SL IV TE violations; and
- the licensee's corrective actions to these TE violations sufficiently addressed the causes.

The inspectors reviewed: 1) the various licensee CAP documents including Apparent Cause Evaluation (ACE) 2537659, "Traditional Enforcement Violations," and Work Group Evaluation (WGE) 2528988 for the TE violations; 2) the licensee's Check-In Self-Assessment Report 2591460-04, "IP 92723 Follow up Inspection for Three or More Severity Level IV TE Violations in the Same Area in a 12-Month Period;" and 3) the licensee's CAP database for similar instances of TE violations.

Documents reviewed are listed in the Attachment to this report.

b. Findings

No findings were identified during this inspection. The licensee's causal analyses identified how the findings occurred, documented extent of condition and extent of cause, and considered similar related events. The ACE and WGE reviews for commonality among the individual evaluations were consistent with licensee requirements, and consistent with the observations documented in the individual condition reports and subsequent analysis. Corrective actions sufficiently addressed the identified apparent and contributing causes, and were prioritized in the licensee's Check-In Self-Assessment, Attachment 3, "Schedule for Open Actions." As of the end of this inspection, not all corrective actions were completed, but were scheduled.

c. Observations

Section 02.01, "Review Problem Identification," of IP 92723 contains guidance that states if the violations associated with the inspection were identified by the NRC, an evaluation should be done to address why processes such as peer review, supervisory oversight, inspection, testing, self-assessments, or quality activities did not identify the problem.

The inspectors noted that the licensee's evaluations identified several apparent or contributing causes to the TE violations, including:

- incorrect assumptions and inappropriate decisions;
- lack of clear and correct guidance;
- inadequate review/challenge;
- inadequate procedural guidance; and
- lack of questioning attitude.

While these licensee-identified apparent and contributing causes were associated with failed or ineffective barriers, the licensee focused on one or two individual roles (i.e., preparer and reviewer) as being contributors to the failed or ineffective barriers that resulted in the violations. The licensee did not perform a more holistic review of how the different organizations involved with these issues failed to prevent the violations.

Specifically, for each TE violation associated with 50.59 evaluations, the issues were being formally evaluated in accordance with the licensee's 50.59 procedure, which had an incorporated peer review process and supervisory review. The licensee's ACE and WGE addressed how the actions of both the preparer and reviewer in the 50.59 process led to the violation, but neither addressed why the peer review process or supervisory oversight failed to prevent the problem.

Section 02.02, "Evaluate Cause, Extent of Condition and Extent of Cause Evaluations," of IP 92723 contains guidance that states that a collective evaluation of the causes for indications of higher level problems with a process or system should be done when there are multiple issues. As an example, the procedure states that issues associated with personnel failing to follow procedures may be indicative of a problem with supervisory oversight and communication of standards.

Concerning NCV 05000373/2015009-01; 05000374/2015009-01, "Failure to Perform a Required 50.59 Evaluation" and NCV 05000373/2015002-03; 05000374/2015002-03, "Inadequate 10 CFR 50.59 Evaluation for Jet Pump Plugs Affecting Fuel Bundle Cooling," licensee procedure LS-AA-104, "Exelon 50.59 Review Process," is specific regarding documentation of 50.59 screenings or evaluations such that a qualified person, who was knowledgeable in the subject area, could recognize the essential argument leading to the preparer's conclusion. In both cases, neither the preparer nor reviewer were rigorous enough in their execution of LS-AA-104, such that the 50.59 screening or evaluation did not contain sufficient information on how a conclusion was reached. Again, the licensee's ACE and WGE addressed the actions of both the preparer and reviewer in the 50.59 process, but neither evaluation addressed the potential for a higher level problem with a process or system.

The inspectors discussed these observations with the licensee. The licensee documented the observations in their CAP as AR 02622080.

4OA6 Management Meetings

.1 Exit Meeting Summary

On April 14, 2016, the inspectors presented the inspection results to Mr. W. Trafton, Site Vice-President, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Interim Exit Meetings

Interim exits were conducted for:

- the results of the IP 92723 inspection with Mr. H. Vinyard, Plant Manager, on February 5, 2016;
- the results of the inservice inspection program inspection with Mr. H. Vinyard, Plant Manager, on February 19, 2016; and
- the results of radiological hazard assessment and exposure controls inspection and occupational ALARA planning and controls inspection with Mr. H. Vinyard on February 26, 2016.

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

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

W. Trafton, Site Vice-President
H. Vinyard, Plant Manager
J. Kowalski, Engineering Director
K. Aleshire, Corporate Emergency Preparedness Director
V. Cwietniewicz, Corporate Emergency Preparedness Manager
D. Gullott, Corporate Licensing
G. Ford, Regulatory Assurance Manager
J. Moser, Radiation Protection Manager
M. Hayworth, Emergency Preparedness Manager
G. Brumbelow, Emergency Preparedness Coordinator
D. Murray, Regulatory Assurance
A. Baker, Dosimetry Specialist
D. Wright, Operations Training Manager (Interim)
A. Schierer, Program Engineering Manager
D. Anthony, Non-Destructive Examination
A. Kochis, Inservice Inspection
G. Chavez, Dry Cask Storage Senior Project Manager
S. Tutoky, Chemistry Analyst
D. Fuson, Operations Instructor
J. Keenan, Operations Director
J. Lindsey, Training Director
A. Vick, Operations Instructor
R. Conley, Operation Manager
D. Kusunamawati, Senior Compliance Engineer

Nuclear Regulatory Commission

B. Dickson, Chief, Reactor Projects Branch 5

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000373/2016001-01; 05000374/2016001-01	URI	Adequacy of Changes to Pool Swell Analysis (Section 1R15)
05000373/2016001-02; 05000374/2016001-02	URI	Partial Length Rods Exceeded Burnup Limit in Design Basis Method of Analysis (Section 1R18)
05000374/2016001-03	NCV	Failure to Maintain Appropriate Work Instructions Led to Lost Parts in the Reactor Vessel (Section 4OA2)

Closed

05000374/2015001-05	URI	Loss of Jet Pump Plug Seals during L2R15 (Section 4OA2)
05000374/2016001-03	NCV	Failure to Maintain Appropriate Work Instructions Led to Lost Parts in the Reactor Vessel (Section 4OA2)

Discussed

None

LIST OF DOCUMENTS REVIEWED

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

1R01 Adverse Weather Protection

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2628853	Entered LOA-TORN-001

1R04 Equipment Alignment

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2450066	1C RHR WS Pump 5DPS Inboard Seal Leak
2465653	1E12-C300C Seal Leak Worsening
2479155	Catch Basin Under 1E12-F068B is Clogged
2506456	Unrealistic Procedure Measuring Locations/Short/Ruin Equip
2560069	2015 Unit 1 Service Water Inspection Report Summary
2568344	Troubleshooting of 1E12-F031A RHR System Leak Tightness
2572585	U1 Division 1 RHR WS Flow [low]
2625698	1A RHR Inoperable due to Low Pressure
2630196	1E12-F-65B Solenoid Suspected Failure
2634558	1E12-F014B 1/4GPM Flange Leak on 1B RHR WS HX Inlet Flange

FIGURES AND DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
M-142	Residual Heat Removal System, Sheet 1	BC
M-142	Residual Heat Removal System, Sheet 2	AZ
M-142	Residual Heat Removal System, Sheet 3	BC
M-142	Residual Heat Removal System, Sheet 4	AD

1R05 Fire Protection

ACTION REQUESTS

Number Description or Title

2606404 Mid-Cycle EGTE: Inadequate Oversight of Hot Work Activities
2611420 NRC Identified – Fire Pre-Plan Discrepancies
2611429 NRC Identified Concerns with Cable Tray and Conduit
2611431 NRC Identified Fire Coating Degradation

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
FZ 4E3	LaSalle Pre-Fire Plan Layout; Unit 1 Elevation 731'-0", Div 2 Essential Switchgear Room	Rev. 0
FZ 4E4	LaSalle Pre-Fire Plan Layout; Unit 2 Elevation 731'-0", Div 2 Essential Switchgear Room	

1R08 Inservice Inspection

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
CC-AA-501-1003	Visual Weld Acceptance Criteria	5
CC-AA-501-1004	Filler Material Control	2
CC-AA-501-1008	Welding General Requirements	8
CC-AA-501-1011	Preheat, Interpass Temperature and Postweld Heat Treatment of Welds	4
CC-AA-501-1021	Repair of Welds and Base Metal	4
ER-AA-335-016	VT-3 Visual Examination Of Component Supports, Attachments and Interiors of Reactor Vessels	9
ER-AA-335-016	Vt-3 Visual Examination of Component Supports, Attachments and Interiors of Reactor Vessels	9
GEH-PDI-UT-1	PDI Generic Procedure For The Ultrasonic Examination Of Ferritic Pipe Welds	9
GEH-PDI-UT-5	Generic Procedure For Straight Beam Ultrasonic Examination Of Bolts And Studs	6.1

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
0463266	Piping Wall Thickness <87.5% of Nominal
0463266	Piping Wall Thickness <87.5% of Nominal
1673158	Possible Bushing(s) Installed in the RPV Flange(s)
1680792	Degradation Observed During Ultrasonic Inspection of WS Line
2382989	ODG01A HX Coating Repairs Needed
2395673	Bonnet to Body Stud has a Rejectable VT-1 Indication
2450519	CT-Four Indications Found on MSV#2 Valve Steam Strainer
2452663	L2R15 INR IVVI-15-05 Steam Dryer Tie Rod Assembly
2452703	Loose Jam Nut on Component Support 2RH03-2895C
2453054	Workers Did Not Sign Off of WTL Upon Exit at End of Work Day
2453247	2B33-F067A Disc Rejectable NDE Indication
2509135	1SA010B – Unit 1 Station Air Dryer Chamber B Purge Check Valve
2509216	Maintenance Received Negative Indicator – May Fail PI Report
2510374	Incorrect Material used on Support Clamp for RH18-2808S
2567450	1B FC EMU Pump Casing Leak
2576847	Work Order Tasks Approved without Correct ISI/ANI Review

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
WO 1695401	Install FLEX line, 1RH72BC-6" to line 1RH59AB-16"	10/23/15
WO 1849417	Install FLEX line, 1RH72BE-6" to line 1RH59AA-16"	1

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	Performance Demonstration Initiative Table 2	09/04/14
15-156	FLEX Mod 6" Line 1RH72BE-6"	11/20/15
96-256	UT Data Sheet for Weld MS-1046-14	03/04/96
ISI-MS-1046	Inservice Inspection Isometric Main Steam System	06/16/94
PQR 1-50C	GTAW Manual P1-P1 Material	01/03/84
PQR A-001	GTAW/SMAW Manual P1-P1 Material	10/19/98
PQR A-002	GTAW/SMAW Manual P1-P1 Material	03/09/99
Protocol PDI-UT-1	Table 1	29
WPS 1-1-GTSM-PWHT	Manual GTAW for P1-P1 Material	2

1R11 Licensed Operator Requalification Program

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
EP-MW-114- 100-F-01	Nuclear Accident Reporting System (NARS) Form	H
TQ-AA-155- F108	Simulator Evaluation—Individual Competency Standards	0
TQ-AA-155- F109	Simulator Evaluation—Crew Competency Standards	0

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
ESG 79	TDRFP Seal Injection Failure; RR FCV Fails Open; Low ADS N2 Pressure; Unisolable RT Leak with 'B' TDRFP Failing to Trip and Emergency Depressurization, Revision 3	3/14/2016

1R13 Maintenance Risk Assessments and Emergent Work Control

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
LGP-1-1	Normal Unit Startup	113

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2410659	Low PWR Ops Negative Trend/Misalignment with INPO
2619385	2B CP Prefilter Leaking at Top Head Gasket

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Rev.</u>
EC 405055	CANDU 10 Seal Adjustments for 1A/B RR Pump Seals, 1B33-C001 A/B	0

MISCELLANEOUS

<u>Description or Title</u>	<u>Date</u>
IEMA Unit 1 Control Rod Positions: Reactor Criticality, Control Rods 34-31, Notch 12	3/9/2016
IEMA Unit 1 Control Rod Positions: Rod Pulls Re-commence Based on New Estimated Critical Position	3/9/2016
IEMA Unit 1 Control Rod Positions: Rod Position where Core went Sub-Critical	3/8/2016

MISCELLANEOUS

<u>Description or Title</u>	<u>Date</u>
L1R17 Task PERC Graph	3/8/2016 – 3/14/2016
Unit Shift Date Rod Position Description Entries (LGP-1-1)	2008 - 2016

1R15 Operability Determinations and Functional Assessments**ACTION REQUESTS**

<u>Number</u>	<u>Description or Title</u>
2615951	NRC Questions on Comp Actions for Pool Swell OE12-003
2625493	NRC Questions Regarding Att. 9, MA-AA-716-008

CALCULATION

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
L-003067	Re-analysis of Fuel Handling Accident (FHA) Using Alternative Source Terms	2

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
FCP 397411	Review of ATRIUM 10 Part Length Fuel Rod Operation Above 62 GWD/MTU (L-003067 Rev 2C)	0

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
NEI 96-07	Nuclear Energy Institute Guidelines for 10 CFR 50.59 Evaluations	2/22/2000

1R18 Plant Modifications**CALCULATION**

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
L-003067	Re-analysis of Fuel Handling Accident (FHA) Using Alternative Source Terms	2

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
FCP 397411	Review of ATRIUM 10 Part Length Fuel Rod Operation Above 62 GWD/MTU (L-003067 Rev 2C)	0

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
NEI 96-07	Nuclear Energy Institute Guidelines for 10 CFR 50.59 Evaluations	2/22/2000

1R19 Post-Maintenance Testing

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2635611	L1R16 – 1E12-F050A IST Seat Leak Test Unsat

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
LOS-RH-Q1	Unit 1 Surveillance WO Disposition, RHR (LPCI) and RHR Service Water Pump and Valve Inservice Test for Modes 1,2,3,4 and 5. Att 1A	3/5/2016
WO 1718160-01	LOS-RI_R3 U1 RCIC Att 1A	3/9/2016
WO 1727150-01	U1 RCIC S/P Check Valve TST LOS-RI-R4, Att 1A/LOS-RI-Q3 Att.	3/10/2016
WO 933636-15	1E12-F0500A: Disassemble and Inspect Check Valve	3/7/2016

1R20 Refueling and Other Outage Activities

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
2637759	Unit 1 Reactor Went Subcritical	11
SA-AA-114	Confined Space Entry	18
SA-AA-115	Work at Heights	13

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2633650	The Wedge for the 1B21-F422B has Indications on Face
2603815	Effect of Part 21 STAAD Errors on Scorpion Platform
2608138	Step Change in SVS Release Rate
2626674	L1R16 LLRT on 1E51-F086 Failed Would not Pressurize

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2626758	NRC-Identified – PPE Storage in RB 761' HCU Area
2627972	LLRT–L1R16–Penetration 1VQ036/068 Exceeds Admin Alarm Limit
2628346	Flex – Incorrect Cables Procured
2628434	L1R16 1VQ031/32/40 LLRT Exceeds Admin Alarm Limit
2628951	Line 1DG05A–4 Was not Cut in the Correct Location Per EC
2629522	1LY–RF002–1 Card will not Cal.
2629683	Excessive Leakage from Fitting During LTS–100–24
2629744	LLRT 1VQ036 Test Results Above Alarm
2630066	FME Historical FM in RPV By Jet Pump 18
2630134	L1R16 Legacy FME In RX Vessel by JP–10
2630157	Valve 1E12–F481A Has Stem and Follower Damage
2630174	RM U1 APRM Channel C INOP For Unknown Reason
2630399	1E12–F481A Packing Follower and Stem Galled
2630753	Fatigue Assessment/Waiver – CB&I Millwright
2631290	FME Historical FM in RPV By Jet Pump 7
2632031	Loose Jam Nut Discovered on Strut Body of 1MS00–1021X
2632117	FME “A” SRM Dry Tube Plunger Spring Unaccounted For in RPV
2632453	Legacy FM By Jet Pumps 16 & 17 at Two Locations
2632480	Breaker did not Trip as Expected During LOS–DG–110
2632761	FME Historical FM in RPV In Gusset 12
2632971	1C SRV Actuator Failed to Close During LOS–MS–R7
2633409	NRC Id'd: Floor Coating Peeling in U1 LPCS/RCIC Room
2633412	NRC Id'd: U1 Condenser Pit Observation
2633658	Chipped Flooring Causing Floatable Material
2635241	1E12–B001A 1A RHRWS Flow Low During PMT
2635599	NRC Id'd: Carts not Chocked
2636499	1A RR Pump Coupling Spool Piece Fit Up Issue
2636545	Unable to Re-install 1B33–N003A
2636747	WR/RR Single Point Vulnerability OPCC PMS not Performed
2636752	Inboard Seal Leak on 2FW01PC Continuing to Degrade
2637215	RM – LOS–RD–SR7 Friction Settle Testing
2637223	RM–L1C17 BOC CRD Settle Testing Summary
2637299	Need Actions Generated to Perform an ACE on AR 2632535
2637587	NRC Question Coatings in Drywell on Floor Elevation 736
2637759	Unit 1 Reactor Went Subcritical with OPS Actions Taken

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2638668	1A RR Pump Breaker (3A) Tripped
2638797	Seal 2 Pressure at 1000 PSI When RR Pump in Fast
2638886	Recirc Pump 1A Seal trouble Alarm Received During Upshift
2639383	1H13–P602–B204, 1B RR Pump Seal Staging Flow Hi/Low Alarm
2639386	1B RR Flow Transmitter Failed Downscale
2639426	Drywell Closeout: 740' Elevation
2639712	FME – FM 1B33–C001A Identified in 1A RR Pump Stuffing Box
2639730	RM – 26B Spill Valve Opened Unexpectedly
2639803	Unit 1 RR Exceeded Maintenance Rule Reliability Criteria
2639886	IR To Create Work Group Eval for IR 2633207

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
L1R16	LaSalle County Station L1R16 Refuel Outage Schedule	0
L1R16/L2R16	Outage Readiness Meeting – Preparation Status	1/5/2016
LS1 F476	Unit 1 Control Rod Positions – 7:53 A.M. Data History	3/16/2016
LS1B731/LS1B733	Recirc LP 11 DR FL Graph, M#/H for Hours 7.9 – 13.9	3/10/2016
LS1B731/LS1B677/ LS1AS07	Graphs: Recirc LP 1A DR FL/APRM A Flux Level/RX Pressure WR for Hours 8.2 – 14.2	3/10/2016

1R22 Surveillance Testing

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
LGP–3–5	Refueling Operations	5, 6, 9

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
1655617	Alternate Vessel Level Indication During Head Installation
2450180	L2R15 As-Found LLRT 2G33–F004 Exceeded Admin Warning Limit
2609818	SVS WRGM Post Calibration Observation
2634853	After Div 3 RTT, Received Several D871 PPC Alarms

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
WO 1708470–1	U1 Alternate Reactor Vessel Water Level Indication Calibration	1/11/2016
WO 1870162–01	Station Vent MN Stack Wide RNG Gas Mon	1/7/2016

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
WO 1678793-01	RWCU PMPS SUCT HI Flow INBRD (Div 2) ISOL CH	1/5/2016

1EP6 Drill Evaluation

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
M-101	Suppression Pool, Sheet 1	BH

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>
WO 1537478-02	Disassemble and Inspect for IST Condition Monitoring

2RS1 Radiological Hazard Assessment and Exposure Controls

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
RP-AA-203	Exposure Control and Authorization	3
RP-AA-280	Occupational Exposure Reporting	8
RP-AA-401-1002	Radiological Risk Management	
RP-AA-403	Planned Dose Rate Alarm Form	8
RP-AA-441	Methodology for Estimating Airborne Radioactivity Based Upon Contamination Levels and work Activities	5
RP-AA-460	Controls for High and Locked High Radiation Areas	28
RP-AA-460-002	Additional High Radiation Exposure Control	3
RP-AA-461	Radiological Controls for Contaminated Water Diving Operations	5
RP-AA-462	Controls for Radiographic Operations	10
RP-SS-1015	Control of Drinking Water Stations in Radiological Controlled Areas	1

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2607518	RP Compliance with Part-37 Accountability
2626784	A Pipe Fitter Alarmed the Monitor at RCA Exit from 100K Particle
2628797	A GE Technician on the Scorpion Unable to Exit the RCA Due to 12K Particle on the Scrub Arm Area
2629047	Remote Dose Monitoring System Failure during Suppression Pool Diving
2629196	PCE on a Pipefitter while Performing Walk-down Activities

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2629643	A Diver Performing Diving Activities in Unit-1 Suppression Pool Found Water in the Helmet Area
2631217	Personnel Contamination Event (PCE) on a Senior Mechanic Supporting Breach of Check Valve 1E12-F036B
2632089	Use of Hydration System not Documented in RWP or ALARA Plan

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
RP-AA-203-1001	Personnel Exposure Investigation Related to AR-02479403 ED Dose Rate Alarm at Unit-1 Curved Wall Area	4/3/2015
RWP-LA-1-16-00901	L1R16 Reactor Disassembly and Reassembly Activities	1
RWP-LA-1-16-00514	L1R16 Control Rod Drive (CRD) Exchanges	2
RWP-LA-1-16-00547	Unit-1 Reactor Recirc. Motor and Pump Replacement – 10017686 Unit-1 1A-RR Motor and Pump Replacement Activities Include Pump/Motor and Internal Replacement Briefing Package	
RWP-LA-1-16-00547	L1R16: 1A RR Motor and Pump Replacement	
RWP-LA-1-16-00701	L1R16 Reactor Building Suppression Pool Diving	3

MISCELLANEOUS

<u>Description or Title</u>	<u>Date</u>
Rad Protection Monthly Trending Report	1/13/2016

40A1 Performance Indicator Verification

LICENSEE EVENT REPORTS

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
2015-002-01	Unit 2: Two Main Steam Safety Relief Valves Failed Inservice Inspection Pressure Test	7/15/2015
2015-003-00	Units 1 & 2: Secondary Containment Inoperable due to Interlock Doors Open	4/20/2015
2015-003-00	Unit 2: Reactor Recirculation Loop Discharge Isolation Valve Vent Line Leak due to Weld Defect	10/6/2015

MISCELLANEOUS

<u>Description or Title</u>	<u>Date</u>
LaSalle 1 Performance Indicators	3Q/2015
LaSalle 2 Performance Indicators	3Q/2015
Unit 1 Planned Power Changes Graph	2015
Unit 2 Planned Power Changes Graph	2015

2RS2 Occupational ALARA Planning and Controls (71124.02)

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
RP-AA-400	ALARA Program	13
RP-AA-401	Operation ALARA Planning and Controls	19

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	ALARA Plan/Micro-ALARA Plan Radioactive Material Transport Plan for Greater than 100mrem/hr at 30 Cm Radioactive Material Transport Plan of 1A RR Pump Internals during 1A RR Pump Impeller Change-Out Project	2/24/2016
	ALARA Work In Progress Review LA-1-16-00547	
	ALARA Work In Progress Review LA-1-16-00702	
ALARA Plan RWP- LA-1-16-00701	Unit 1 Suppression Pool Diving for Desludging and Inspections	19
ALARA Plan RWP- LA-1-16-00901	L1R16 Reactor Disassembly and Reassembly Activities	
ALARA Plan-RWP- LA-1-16-00547	Unit-1 Reactor Recirc. Motor and Pump Replacement – 10017686	

4OA2 Identification and Resolution of Problems

ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2623938	U2 DWFDS Fillup Rate Slow Trend Up
2627657	1G33-F100 RR Loop A Suction to RWCU Failed to Close
2633906	Unexpected Run Time on Sump 2RF04
2633900	Unexpected Run Time on Sump 2OD01
2466339	Evaluate the Acceptability of Using Suction Pumps for Accelerated Draining of the Reactor Recirculation Loops (Assignment 24)

ACTION REQUESTS GENERATED FROM NRC OR IEMA INSPECTION

<u>Number</u>	<u>Description or Title</u>
2603815	Effect of Part 21 STAAD Errors on Scorpion Platform
2611420	NRC Identified Fire Pre-Plan Discrepancies
2611429	NRC Identified Concerns with Cable Tray and Conduit
2611431	NRC Identified Fire Coating Degradation
2615951	NRC Questions on Comp Actions for Pool Swell OE12-003
2625493	NRC Questions Regarding Att. 9, MA-AA-716-008
2626758	NRC-Identified – PPE Storage in RB 761' HCU Area
2633409	NRC Id'd: Floor Coating Peeling in U1 LPCS/RCIC Room
2633409	NRC Id'd: Floor Coating Peeling in U1 LPCS/RCIC Room
2633412	NRC Id'd: U1 Condenser Pit Observation
2635599	NRC Id'd: Carts Not Chocked

WORKING DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
EC 381933	Evaluate Work Order Tasks to Install RR Jet Pump Nozzle Plugs and RPV RR Outlet Nozzle Plug for Isolating the 2B RR Pump for Mechanical Seal Replacement (MR90)	0

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
2466339	Investigation Report: Loss of Jet Pump Plug Seals during L2R15, Rev. 1	10/30/2015
2508333	Root Cause Investigation Report: Decision Making Related to the Foreign Material Integrity Event Associated with Lost Jet Pump Plug Seals	7/9/2015

40A5 Other Activities

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
LOP-IN-05	Replacing Nitrogen Bottles on Instrument Nitrogen System	24
LS-AA-104	Exelon 50.59 Review Process	10
LS-AA-104-1000	Exelon 50.59 Resource Manual	9
PI-AA-125-1006	Investigation Techniques Manual	2
PI-AA-120	Issue Identification and Screening Process	3
PI-AA-125-1003	Apparent Cause Evaluation Manual	2

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
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ACTION REQUESTS

<u>Number</u>	<u>Description or Title</u>
2482812	NRC ID'D URI on COLR Change Impact on TS
2486215	Issues with Safety Evaluation L15-047 and Screening L15-044
2525609	50.59 L13-017 Evaluation Issue
2528612	Technical Specification 5.6.5 Update
2528988	Documentation not Completed for EC 395842
2537659	Four Traditional Enforcement Violations

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
ACE 2537659	Traditional Enforcement Violations	9/10/2015
EC 395842	Increased # SRV Actuations that the ADS Accumulator Back-up Compressed Gas System (Bottle Banks) Must Support	0
PI-AA-126-1005-F-01	IP 92723 Follow Up Inspection for Three or More Severity Level IV TE Violations in the Same Area in a 12-Month Period	0
WGE 2528988	Documentation not Completed for EC 395842	

LIST OF ACRONYMS USED

AC	Alternating Current
ACE	Apparent Cause Evaluation
ADAMS	Agencywide Documents Access Management System
ALARA	As-Low-As-Is-Reasonably-Achievable
AR	Action Request (also known as Issue Report)
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CFR	Code of Federal Regulations
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
IST	Inservice Testing
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records System
PI	Performance Indicator
RCIC	Reactor Core Isolation Cooling
RG	Regulatory Guide
RHR	Residual Heat Removal
RPV	Reactor Pressure Vessel
RR	Reactor Recirculation
SL	Severity Level
TE	Traditional Enforcement
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
UT	Ultrasonic Examination
VT	Visual Examination
WGE	Work Group Evaluation
WO	Work Order

B. Hanson

- 2 -

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Sincerely,

/RA/

Billy Dickson, Chief
Branch 5
Division of Reactor Projects

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IR 05000373/2016001; 05000374/2016001

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