



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

November 3, 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 05000373/2016003 AND 05000374/2016003

Dear Mr. Hanson:

On September 30, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your LaSalle County Station, Units 1 and 2. On October 4, 2016, the NRC inspectors discussed the results of this inspection with Mr. W. Trafton and other members of your staff. Inspectors documented the results of this inspection in the enclosed inspection report.

NRC inspectors examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The NRC inspectors did not identify any findings or violations of more than minor significance.

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

B. Hanson

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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 05000373/2016003; 05000374/2016003

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000373/2016003; 05000374/2016003

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: Marseilles, IL

Dates: July 1 through September 30, 2016

Inspectors: R. Ruiz, Senior Resident Inspector
J. Robbins, Resident Inspector
C. Hunt, Resident Inspector
T. Ospino, RIII Reactor Engineer
J. Cassidy, RIII Senior Health Physicist
R. Zuffa, (Illinois Emergency Management Agency), Resident Inspector

Approved by: B. Dickson, Chief
Branch 5
Division of Reactor Projects

Enclosure

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SUMMARY

Inspection Report 05000373/2016003, 05000374/2016003; 07/01/2016–09/30/2016; LaSalle County Station, Units 1 & 2; Routine Integrated Inspection Report

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. No findings were identified. The U.S. Nuclear Regulatory Commission's (NRC's) program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG–1649, "Reactor Oversight Process," Revision 6, dated July 2016.

REPORT DETAILS

Summary of Plant Status

Unit 1

With the exception of minor power changes for rod pattern adjustments and turbine valve surveillance testing, the unit remained at or near full-power throughout the inspection period.

Unit 2

With the exception of minor power changes for rod pattern adjustments and turbine valve surveillance testing, the unit remained at or near full-power throughout the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

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

- Unit 1 low pressure core spray;
- Unit 2 control rod drive (CRD) system during Unit 2 B diesel generator (DG) outage;
- Unit 1 A DG system during Unit 0 DG and low pressure core spray outage;
- Unit 2 high pressure core spray during reactor core isolation cooling outage; and
- Unit 1 B DG system following maintenance.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Final Safety Analysis Report (UFSAR), Technical Specification (TS) requirements, outstanding work orders (WOs), action requests (ARs), 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 corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted five partial system walkdown samples as defined in Inspection Procedure (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 5B7, Unit 1, 731' elevation, hydrogen seal oil unit;
- fire zone 5B8, Unit 2, 731' elevation, hydrogen seal oil unit;
- fire zone 4E1, Unit 1, 731' elevation, auxiliary electrical equipment room;
- fire zone 4D3, Unit 1, electrical equipment room;
- fire zone 3E, Unit 2, 761' 0" elevation, general area & reactor water cleanup pump cubicles;
- fire zone 2E, Unit 1, 761' 0" elevation, general area & reactor water cleanup pump cubicles;
- fire zone 8B1, 710'6" elevation, high pressure core spray DG Room; and
- fire zone 8B2, Division II, 710' 6" elevation, standby DG room.

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

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

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

Documents reviewed are listed in the Attachment to this report.

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

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 August 17, 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 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 regualification 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 September 28, 2016, the inspectors observed operators in the control room during a period of increased activity due to concurrent, multiple surveillances. This activity required heightened awareness or was related to increased risk. The inspectors evaluated the following areas:

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

- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications (if applicable).

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

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

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations

a. Inspection Scope

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

- Unit 1 CRD system;
- Unit 2 motor-driven reactor feed pump (MDRFP);
- Maintenance Rule system scoping review; and
- quality control review.

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 Title 10 of the *Code of Federal Regulations* (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 inspector performed a quality review as discussed in IP 71111.12, Section 02.02.

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

This inspection constituted four quarterly maintenance effectiveness samples as defined in IP 71111.12–05.

b. Findings

No findings were identified.

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

.1 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

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

- Unit 2 A DG maintenance work window (Yellow risk);
- Unit 2 B DG bus duct inspection (Yellow risk);
- Unit 0 DG outage and Units 1 and 2 A residual heat removal (RHR) work window; and
- Unit 1 B DG work window (Yellow risk).

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 Functional Assessments (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- RHR service water flow does not meet procedure LOS–RH–Q1 requirements;

- unexpected alarm 2H13–P603–A403, control rod drive high temperature;
- Unit 2 24 VDC charger not functioning properly; and
- Unit 1 B channel of reactor core isolation cooling level 2 initiation logic, 2B21–N710B, inoperable.

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 four samples as defined in IP 71111.15–05.

b. Findings

No findings were identified.

.2 Annual Sample: Review of Operator Workarounds

a. Inspection Scope

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

The inspectors performed a review of the cumulative effects of operator workarounds. The documents listed in the Attachment were reviewed to accomplish the objectives of the inspection procedure. The inspectors reviewed both current and historical operational challenge records to determine whether the licensee was identifying operator challenges at an appropriate threshold, had entered them into their CAP and proposed or implemented appropriate and timely corrective actions which addressed each issue. Reviews were conducted to determine if any operator challenge could increase the possibility of an initiating event, if the challenge was contrary to training, required a change from long-standing operational practices, or created the potential for inappropriate compensatory actions. Additionally, all temporary modifications were reviewed to identify any potential effect on the functionality of mitigating systems, impaired access to equipment, or required equipment uses for which the equipment was not designed. Daily plant and equipment status logs, degraded instrument logs, and operator aids or tools being used to compensate for material deficiencies were also assessed to identify any potential sources of unidentified operator workarounds.

This review constituted one operator workaround annual inspection sample as defined in IP 71115–02.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

.1 Plant Modifications

a. Inspection Scope

The inspectors reviewed modification LST–2015–002, Increase Flow through Reactor Water Cleanup (50.59 Evaluation L–16–159).

The inspectors reviewed the configuration change 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 system. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors reviewed the change to ensure that individuals were aware of how the operation with the process modification 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 activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- Procedure LOS–DG–Q2, Attachment A1, DG fuel oil transfer pump test, after the replacement of control relays for the diesel fuel oil transfer pump;
- Unit 2 Division III core standby cooling system pump room sump after maintenance;
- Unit 2 Division I 125 VDC battery room exhaust fan 2VX02C test following breaker replacement;
- Unit 2 B DG B starting air pressure regulator valve;
- Unit 2 B DG to bus 243 duct inspection;
- Unit 0 DG post–maintenance test following work window; and
- Unit 2 standby gas treatment system post–maintenance testing.

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 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 seven post-maintenance testing samples as defined in IP 71111.19-05.

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:

- LEP-EQ-115, Klockner-Moeller circuit breakers and related motor control center (MCC) equipment (Routine);
- Unit 2 high pressure core spray (Routine);
- LOS-DG-M1, Unit 0 DG idle start (Routine);
- LOS-CS-Q1, Unit 1 secondary containment damper operability test (IST);
- LOS-CS-Q1, Unit 2 secondary containment damper operability test (IST);
- LOS-RH-Q1, Unit 2 A RHR service water (IST); and
- Unit 2 increased indication of reactor control system leakage (RCS).

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

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;

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

Documents reviewed are listed in the Attachment to this report.

This inspection constituted three routine surveillance testing samples, three in-service test samples and one reactor coolant system leak detection inspection sample as defined in IP 71111.22, Sections-02 and-05.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on September 9, 2016, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The

inspectors observed emergency response operations in the technical support center to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the CAP. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the Attachment to this report.

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

b. Findings

No findings were identified.

2. RADIATION SAFETY

2RS7 Radiological Environmental Monitoring Program (71124.07)

.1 Site Inspection

a. Inspection Scope

The inspectors walked down select air sampling stations and dosimeter monitoring stations to determine whether they were located as described in the Offsite Dose Calculation Manual (ODCM) and to determine the equipment material condition.

The inspectors reviewed calibration and maintenance records for select air samplers, dosimeters, and composite water samplers to evaluate whether they demonstrated adequate operability of these components.

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

The inspectors observed the collection and preparation of environmental samples from select environmental media to determine if environmental sampling was representative of the release pathways specified in the ODCM and if sampling techniques were in accordance with procedures.

The inspectors assessed whether the meteorological instruments were operable, calibrated, and maintained in accordance with guidance contained in the UFSAR, the NRC Regulatory Guide 1.23, "Meteorological Monitoring Programs for Nuclear Power Plants," and licensee procedures. The inspectors assessed whether the meteorological data readout and recording instruments were operable.

The inspectors evaluated whether missed and/or anomalous environmental samples were identified and reported in the Annual Environmental Monitoring Report. The inspectors selected events that involved a missed sample, inoperable sampler, lost dosimeter, or anomalous measurement to determine if the licensee had identified the cause and had implemented corrective actions. The inspectors reviewed the licensee's

assessment of any positive sample results and reviewed any associated radioactive effluent release data that was the source of the released material.

The inspectors selected structures, systems, or components that involve or could reasonably involve a credible mechanism for licensed material to reach ground water, and assessed whether the licensee had implemented a sampling and monitoring program sufficient to detect leakage to ground water.

The inspectors evaluated whether records important to decommissioning, as required by 10 CFR 50.75(g), were retained in a retrievable manner.

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

The inspectors assessed whether the appropriate detection sensitivities with respect to the ODCM were used for counting samples. The inspectors reviewed the Quality Control Program for analytical analysis.

The inspectors reviewed the results of the licensee's Interlaboratory Comparison Program to evaluate the adequacy of environmental sample analyses performed by the licensee. The inspectors assessed whether the interlaboratory comparison test included the media/nuclide mix appropriate for the facility. The inspectors reviewed the licensee's determination of any bias to the data and the overall effect on the Radiological Environmental Monitoring Program.

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

b. Findings

No findings were identified.

.2 Groundwater Protection Initiative Implementation

a. Inspection Scope

The inspectors reviewed monitoring results of the Groundwater Protection Initiative to evaluate whether the licensee had implemented the program as intended and to assess whether the licensee had identified and addressed anomalous results and missed samples.

The inspectors evaluated the licensee's implementation of the minimization of contamination and survey aspects of the Groundwater Protection Initiative and the Decommissioning Planning Rule requirements in 10 CFR 20.1406 and 10 CFR 20.1501.

The inspectors reviewed leak and spill events and 10 CFR 50.75 (g) records and assessed whether the source of the leak or spill was identified and appropriately mitigated.

The inspectors assessed whether unmonitored leaks and spills were evaluated to determine the type and amount of radioactive material that was discharged. The inspectors assessed whether the licensee completed offsite notifications in accordance with procedure.

The inspectors reviewed evaluations of discharges from onsite contaminated surface water bodies and the potential for groundwater leakage from them. The inspectors assessed whether the licensee properly accounted for these discharges as part of the Effluent Release Reports.

The inspectors assessed whether onsite groundwater sample results and descriptions of any significant onsite leaks or spills into groundwater were documented in the Annual Radiological Environmental Operating Report or the Annual Radiological Effluent Release Report.

The inspectors determined if significant new effluent discharge points were updated in the ODCM and the assumptions for dose calculations were updated as needed.

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

b. Findings

No findings were identified

.3 Problem Identification and Resolution

a. Inspection Scope

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

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

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 Mitigating Systems Performance Index—Emergency Alternating Current Power System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index (MSPI) – Emergency Alternating Current (AC) Power System performance indicator (PI) for Units 1 and 2 from the third quarter 2015 through the second quarter 2016. 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, MSPI derivation reports, issue reports, event reports and NRC Integrated Inspection Reports from the third quarter 2015 through the second quarter 2016 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee’s issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index—High Pressure Injection Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI – High Pressure Injection PI for Units 1 and 2 from the third quarter 2015 through the second quarter 2016. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the 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, MSPI derivation reports, event reports and NRC Integrated Inspection Reports from the third quarter 2015 through the second quarter 2016 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee’s issue report database to determine if any problems had been identified

with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index—Residual Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI – RHR System PI for Units 1 and 2 from the third quarter 2015 through the second quarter 2016. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the 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, MSPI derivation reports, event reports and NRC Integrated Inspection Reports from the third quarter 2015 through the second quarter 2016 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee’s issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

.4 Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors sampled licensee submittals for the reactor coolant system specific activity PI for LaSalle County Station, Units 1 and 2, from the first quarter 2015 through the second quarter 2016. The inspectors used PI definitions and guidance contained in the NEI Document 99–02, “Regulatory Assessment Performance Indicator Guideline,” Revision 7, dated August 2013, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee’s reactor coolant system chemistry samples, TS requirements, issue reports, event reports and U.S. Nuclear Regulatory Commission Integrated Inspection Reports to validate the accuracy of the submittals. The inspectors also reviewed the licensee’s issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

.5 Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspectors sampled licensee submittals for the Occupational Exposure Control Effectiveness PI from the third quarter 2015 through the second quarter 2016. The inspectors used PI definitions and guidance contained in the NEI Document 99–02, “Regulatory Assessment Performance Indicator Guideline,” Revision 7, dated August 2013, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee’s assessment of the PI for occupational radiation safety to determine if the indicator related data was adequately assessed and reported. To assess the adequacy of the licensee’s PI data collection and analyses, the inspectors discussed with radiation protection staff the scope and breadth of its data review and the results of those reviews. The inspectors independently reviewed electronic personal dosimetry dose rate and accumulated dose alarms and dose reports and the dose assignments for any intakes that occurred during the time period reviewed to determine if there were potentially unrecognized occurrences. The inspectors also conducted walkdowns of numerous locked high and very-high radiation area entrances to determine the adequacy of the controls in place for these areas. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors sampled licensee submittals for the Radiological Effluent TS/ODCM radiological effluent occurrences PI from the third quarter 2015 through the second quarter 2016. The inspectors used PI definitions and guidance contained in the NEI Document 99–02, “Regulatory Assessment Performance Indicator Guideline,” Revision 7, dated August 2013, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee’s issue report database and selected individual reports generated since this indicator was last reviewed to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have impacted offsite dose. The inspectors reviewed gaseous effluent summary data and the results of associated offsite dose calculations for selected dates to determine if indicator results were accurately reported. The inspectors also reviewed the licensee’s methods for quantifying gaseous and liquid

effluents and determining effluent dose. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

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

a. Inspection Scope

As part of the various baseline inspection procedures 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 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.

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

.1 (Closed) Licensee Event Report 05000374/2016–001–00, Secondary Containment Inoperable Due to Door Interlock Failure

On February 17, 2016, Unit 2 was in Mode 1 at 100 percent power and Unit 1 was in Mode 5 for refueling outage L1R16 with no fuel movements, core alterations, or operations with the potential to drain the reactor vessel in progress. At approximately 1035 hours, Operations received a report that an employee entered a secondary containment interlock and identified that both doors of the Unit 2 chemistry lab corridor/reactor building interlock (door number 247 and door number 248) were opened simultaneously.

The employee immediately secured both doors in the interlock and notified the main control room supervisor. Both doors in the interlock were open for approximately five seconds. With both doors open, TS surveillance requirement 3.6.4.1.2 was not met for Unit 2. This rendered secondary containment inoperable in accordance with TS 3.6.4.1. Reactor Building differential pressure, as observed in the main control room, remained less than –0.25 inches vacuum water gauge at all times.

The cause of the event was the failure of the relays of the UR2–4 controller circuit card in the interlock door. The exact failure mechanism of the relays was unknown by the licensee at the time of this review; however, CAP tracking items had been created by the licensee to identify the cause and make changes to prevent the undesired circuit card service life issues experienced by the site. The immediate corrective action taken by the station was replacement of the defective controller circuit card. Controller circuit cards with failed relays were sent to PowerLabs for analysis. They would then be sent to the vendors for further failure analysis. The inspectors considered these corrective actions to be reasonable.

A technical evaluation was performed by the licensee that determined this event did not meet the NEI Document 99–02 definition of a safety system functional failure.

This licensee event report (LER) is closed.

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

.2 (Closed) Licensee Event Report 05000373/05000374/2016–001–00, Secondary Containment Inoperable Due to Reactor Building Ventilation Damper Failure

On February 10, 2016, Unit 1 was in Mode 1 at 91 percent power and Unit 2 was in Mode 1 at 100 percent power. At 2207 hours, it was reported that the Unit 1 reactor building ventilation exhaust damper, 1VR05YA, failed and began to show dual indication. As a result, the Unit 1 reactor building ventilation exhaust fans tripped off, causing a positive reactor building differential pressure for the shared unit reactor building. The damper and secondary containment were declared inoperable, and the appropriate TS action statements were entered.

The cause was an intermittent failure of a solenoid on one of the two half-damper blades on the 1VR05YA exhaust isolation damper, which led to the exhaust damper blade intermittently changing its position causing secondary containment pressure to go positive. The solenoid valves on both halves of the 1VR05YA exhaust damper were replaced, and the failed solenoid was sent to a vendor for failure analysis.

As corrective actions, the licensee replaced both solenoid valves on both halves of the 1VR05YA exhaust damper blades. Additional corrective actions would be determined following the vendor's component failure analysis. The inspectors considered these corrective actions to be reasonable.

This LER is closed.

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

.3 (Closed) Licensee Event Report 05000374/2015-003-00, Reactor Recirculation Loop Discharge Isolation Valve Vent Line Leak Due to Weld Defect

On August 7, 2015, Unit 2 was in Mode 3 for a planned maintenance outage. At 1300 hours, during the initial drywell entry, a steam leak was observed on the reactor recirculation (RR) system line 2RR94AB-3/4". At 1345 hours, the leak was determined to be pressure boundary leakage and the appropriate TS 3.4.5, "RCS Operational Leakage," Required Actions C.1 and C.2 were entered.

The cause for the steam leak on line 2RR94AB-3/4" was determined to be poor weld quality and vibration-induced fatigue due to RR system operation. The leak was repaired by replacing line 2RR94AB-3/4". The inspectors determined this corrective action to be reasonable.

This LER is closed.

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

.4 (Closed) Licensee Event Report 05000374/2015-002-01, Two Main Steam Safety Relief Valves Failed Inservice Lift Inspection Pressure Test

During the February 2015 Unit 2 refueling outage L2R15, two main steam safety relief valves (SRV) did not pass TS Surveillance Requirement 3.4.4.1 and In-service Testing Program lift pressure requirements. Both SRVs lifted below their expected lift pressures. Safety relief valve 2621-F013S was required to lift within plus or minus three percent of 1150 psi (i.e., 1150 psi plus or minus 34.5 psi), but actually lifted at 1099 psi. SRV 2B21-F013M was required to lift within plus or minus three percent of 1195 psi (i.e., 1195 psi plus or minus 35.8 psi), but actually lifted at 1145 psi.

Disassembly and inspection of both valves was performed at NWS Technologies, LLC, to determine the cause for failure. The vendor reported that all of the spring tolerances were within the acceptance limits for both valves. There were no other signs of

degradation or any other issue that would affect the setpoint. Second lift tests for both valves were satisfactory and were within the plus or minus three percent tolerance of the set pressure. The cause for 2B21–F013S and 2621–F013M to fail their set pressure test in L2R15 was found to be indeterminate. As a corrective action, the licensee replaced both SRVs during the refueling outage. The inspectors considered this corrective action to be reasonable.

This LER is closed.

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

4OA6 Management Meetings

.1 Exit Meeting Summary

On Tuesday, October 4, 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

An interim exit meeting was conducted for the inspection results of the radiation safety program review with Mr. M. Martin, Chemistry Manager, on August 12, 2016.

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

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
G. Ford, Regulatory Assurance Manager
J. Moser, Radiation Protection Manager
M. Hayworth, Emergency Preparedness Manager
R. Conley, Operation Manager
N. Faith, Corporate Cyber Security Program Manager
R. Dunning, Senior Maintenance Specialist
S. Tutoky, ODCM Specialist

U.S. Nuclear Regulatory Commission

B. Dickson, Chief, Reactor Projects Branch 5

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

05000374/2016-001-00	LER	Secondary Containment Inoperable Due to Door Interlock Failure (Section 4OA3)
05000373/2016-001-00	LER	Secondary Containment Inoperable Due to Reactor Building Ventilation Damper Failure (Section 4OA3)
05000374/2016-001-00		
05000374/2015-003-00	LER	Reactor Recirculation Loop Discharge Isolation Valve Vent Line Leak Due to Weld Defect (Section 4OA3)
05000374/2015-002-01	LER	Two Main Steam Safety Relief Valves Failed Inservice Lift Inspection Pressure Test (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.

1R04 Equipment Alignment

- 1E-1-4991 SA; Block Interconnection Diagram Low Pressure Core Spray (LPCS); Revision G
- LOP-DG-06M; Unit 1A Diesel Generator Cooling System Mechanical Checklist; 9/13/2016
- LOP-DG-07E; Unit 1 B Diesel Generator Cooling System Electrical Checklist; Revision 5
- LOP-HP-02E Unit 2 High Pressure Core Spray Electrical Checklist; Revision 5
- LOP-LP-01M; Unit 1 Low Pressure Core Spray Mechanical Checklist; Revision 13
- LOP-RD-02E; Unit 2 Control Rod Drive System Electrical Checklist; Revision 6
- LOP-RD-02M; Unit 2 Control Rod Drive System Mechanical Checklist; Revision 19
- M-141; P&ID High Pressure Core Spray (HPCS); Revision AS
- M-1437; HPCS Switchgear Room and HRSS Ventilating System El. 687'0"; Revision M
- M-156; P&ID Control Rod Drive Hydraulic Piping System
- M-94; P&ID, Low Pressure Core Spray (LPCS); Revision AD

1R05 Fire Protection

- AR 2388345; OIO — H2/O2 Bottles Separation Barrier for Storage vs Use
- AR 2713662; NRC Identified Pre-Fire Plan Discrepancy
- Calc L-000776; Fire Zone 4E1-1, 4E1-2, Combustible Load for Unit 1 Aux. Elec. Equip. Room; Revision 8
- FZ 2E; LaSalle County Generating Station Pre-Fire Plan Rx Bldg 761'0" Elev. U1 General Area & RWCU Pump Cubicles
- FZ 3E; LaSalle County Generating Station Pre-Fire Plan Rx Bldg 761'0" Elev. U2 General Area & RWCU Pump Cubicles
- FZ 4D3; LaSalle County Generating Station Pre-Fire Plan; Aux. Bldg. 749'-0" Elev. U1 Electrical Equipment Room
- FZ 4E1; LaSalle County Generating Station Pre-Fire Plan; Aux. Bldg, 731'-0" Elev. U1 Auxiliary Equipment Room
- FZ 5B7; LaSalle County Generating Station Pre-Fire Plan; TB. Bldg, 731'-0" Elev. U1 Hydrogen Seal Oil Unit
- FZ 5B8; LaSalle County Generating Station Pre-Fire Plan; TB. Bldg, 731'-0" Elev. U2 Hydrogen Seal Oil Unit
- FZ 7B1; LaSalle County Generating Station Pre-Fire Plan; DG Bldg. 710'0" Elev. U1 HPCS Diesel-Generator Room
- FZ 7B2; LaSalle County Generating Station Pre-Fire Plan; DG Bldg. 710'0" Elev. U1 Division 2 Standby Diesel-Generator Room
- FZ 8C3; LaSalle County Generating Station Pre-Fire Plan; DG Bldg. 674'0" Elev. U2 Division 3 HPCS Diesel Pump Room
- FZ 8C4; LaSalle County Generating Station Pre-Fire Plan; DG Bldg. 674'0" Elev. U2 Division 2 RHR Service Water Pump Room

- FZ 8C5; LaSalle County Generating Station Pre-Fire Plan; DG Bldg. 674'0" Elev. U2 Division 1 RHR Service Water Pump Room
- LSCS-FPR H.3-188; Design-Basis Fire; Revision 7
- LSCS-FPR Table H.2-2; Combustible Loading and Extinguishing Capability; Revision 7

1R12 Maintenance Effectiveness

- AR 1936755; RM—Unit 1 Control Rod 46-39 Drifting Out LOA-RD-101 Entry
- AR 2391822; RD Exceeds MR Performance Criteria for LAS-1-RD-01
- AR 2391822; RD Exceeds MR Performance Criteria for LAS-1-RD-01
- AR 2398779; Apparent Cause Investigation report: ACE to Evaluate CRD Performance for Common Causes; 11/12/2014
- AR 2400079; U1 MDRFP Seal Leakage Worsening
- AR 2410202; MDRFP Leak is Getting Worse
- AR 2415389; MDRFP Outboard Seal Leakage Doubled
- AR 2418764; Water Intrusion into MDRFP Oil System
- AR 2523639; U2 MDRFP Small Inboard Seal Leak
- AR 2523989; MDRFP Position Error Alarm
- AR 2526223; U2 MDRFP Inboard Seal Leak
- AR 2536245; 2FW01PC-U2 MDRFP Inboard Seal Leak Increase
- AR 2538118; Unit 2 MDRFP Inboard Seal Cooler Outlet Temperature > 180°F
- AR 2554476; RM—Control Rod 46-11 Continued to Withdraw—Stuck 122 DCV
- AR 2625980; U2 MDRFP Seal Leak Worsening
- AR 2626028; RM—Two 9D Control Rods Settle Issues at Position 00
- AR 2626169; RM—U1 Control Rod 14-47 Stuck at Full in Position
- AR 2628931; HCU 18-11 V107 Bonnet Valve Bolt Would Not Break Free
- AR 2637223; RM—L1C17 BOC CRD Settle Testing Summary
- AR 2637462; U-2 MDRFP Mechanical Seal Leak Required Isolation
- AR 2643511; RM—HCU 26-47 Accumulator Trouble Alarm
- AR 2644608; RM—Data Fault on Control Rod 02-19
- AR 2644682; RM—CRD 02-19 Temperature >400F
- AR 2645258; CRD Hi Temp Alarm
- AR 2656807; RM-120 DCV for Rod 14-43 is Fully Closed
- AR 2656920; U2 DGRFP Inboard Seal Leak has Increased
- AR 2710470; U2 MDRFP Seal Leak Degraded
- AR 2711034; U1 MDRFP Outboard Seal Leakage Increased to 3 DPS
- AR 2719714; U1 MDRFP 2 DPS Leak from the Inboard Seal Leak-off Chamber
- AR 2720555; MDRFP Shaft Seal Temperatures Above Design Parameters
- ER-AA-310; Implementation of the Maintenance Rule; Revision 9
- ER-AA-310-1001; Maintenance Rule—Scoping; Revision 4
- ER-AA-310-1002; Maintenance Rule Functions—Safety Significance Classification; Revision 3
- LAS-0-BB-01; MR Basis Function; 10/5/2016
- LAS-1-RD; Maintenance Rule System Basis Document, LaSalle 1, Control Rod Drive; 9/14/2016
- LOS-RD-M3; Control Rod Monthly Surveillances; Revision 6
- MR Function Evaluation, LAS-1-RD-01; Control Rod Drive; 8/31/2016
- MR LAS-2-FW; Maintenance Rule System Basis; Unit 2 Feedwater; 9/28/2016
- System Function Description and Status Listing; Undated

1R13 Maintenance Risk Assessments and Emergent Work Control

- Current Installed Protected Pathway List; 9/13/2016
- Current Installed Protected Pathway Lists; 8/22/2016 and 8/30/2016
- LS-PRD-2016, Model LS2-PRD-M-21; Paragon 1.3 Decision Tree Report for HPI01, High Pressure Injection; 8/31/2016
- LS-PSA-005.04; LaSalle PRA Control Rod Drive (CRD) Hydraulic System Notebook; Revision 3

1R15 Operability Determinations and Functional Assessments

- AR 2608365; 2 New Operator Work Arounds
- AR 2635241; 1E12-B001A 1A RHRWS Flow Low During PMT
- AR 2682266; VC/VE Suction Pressure Issue: Operator Challenge
- AR 2714423; Unexpected Alarm 2H13-P603-A403
- AR 2715493; RHR WS Flow Does Not Meet LOS-RH-Q1 Requirements
- AR 2715833; 3Q16 Operator Work Around Board Actions
- AR 2719771; 24 VDC Charger Not Functioning Properly
- AR 703806; NOS ID: Log Keeping Issue with 24 VDC Battery Charger C/O
- Calc. 97-201; Thermal Model of ComEd/LSCS RHR Heat Exchangers 1(2)RH01A & B; Revision 0
- Calc. L-002404; CSCS Cooling Water System "Road Map" Calculation; Revisions 8, 002L
- EC 362216; Minimum Battery Terminal Voltage for the Unit 1 and 2 24/48 Battery Systems
- EC 404796; Evaluation of the 1A RHR Heat Exchanger Eddy Current Testing; Revision 0
- EC 404987; Engineering Change, 1E12-B001A 1A RHRWS Flow Low During PMT; 3/9/2016
- L-002099; Sizing 24/48 VDC System Battery and Battery Charger Based on GNB Type 2-MCX-05 Cells; Revision 3
- LOS-RH-Q1; RHR (LPCI) and RHR Service Water Pump and Valve Inservice Test for Modes 1, 2, 3, 4 and 5; Revision 89
- OC402-OC407; Operator Work Arounds Status Listing; January 2015 – September 2016
- OP-AA-102-103; Operator Work-Around Program, CM-1; Revision 4
- OP-AA-102-103-1001; Operator Burden and Plant Significant Decisions Impact Assessment Program (CM-1); Revision 7
- Operator Burden/ Degraded Equipment Aggregate Assessment; 9/6/2016
- OP-LA-101-111-1002; Risk Recognition/Decision Making Process Flowchart 2B21-N710B Gross Failure to Latch; 9/28/2016
- SIL 173; Control Rod Drive High Operating Temperature Services Information Letter; 9/21/2007

1R18 Plant Modifications

- LST-2015-002; Increase Flow Through Reactor Water Cleanup; Revision 0

1R19 Post-Maintenance Testing

- EC 393887; Unit 2 Online Replacement of Selected Klockner Moeller Cubicles in MCCs 2AP75E, 2AP76E, 2AP78E, 2AP80E and 2AP83E; Revision 2
- LES-DG-103; 1A Diesel Generator Trips and Trip Bypass Logic Test; Revision 3
- LMS-DG-01; Main Emergency Diesel Unit Surveillances; Revision 55
- LOS-VG-M1; Tech Spec Surveillance U2 PMT for 2VG OIC per EC 393887; 9/20/2016
- LOS-VG-M1; Tech Spec Surveillance U2 SBGT; 9/26/2016
- WO 1327736-01; DG 2B to 243 Bus Duct Inspection per LEP-AP-201; 8/30/2016

- WO 1327736-10; DG 2B to 243 Bus Duct Inspection per LEP-AP-201; 8/31/2016
- WO 1471594-02; Perform LES-GM-109 For 2VX02C @ MCC 235X-1/C1 (2AP71E)
- WO 1609189-01; Replace Control Relay; 9/6/2016
- WO 1722754-08; Klockner Moeller MCC 2AP78E-C1 Cubicle Replacement; 9/19/2016
- WO 1882088-08; 2VX02C Klockner Moeller MCC 2AP71E-C1 Cubicle Replacement
- WO 1882332-08; 2VG02C Klockner Moeller MCC 2AP78E-A2 Cubicle Replacement; 9/19/2016
- WO 1891788-02; Air Leak on Union 2E22-F363B; 8/31/2016
- WO 1891790-02; Air Leak Noticed During Troubleshooting; 8/31/2016
- WO 18998711-02; Perform Inspection per LES-GM-109 @ 2AP78E-C1; 9/19/2016
- WO 1923082-20; Chemical Cleaning of Waterside of 2VY02A Cooler
- WO 1923082-21; Chemical Cleaning of Waterside of 2VY02A Cooler
- WO 1930704-01; LOS-DG-Q2 Att. A1, 1A DG Fuel Oil Transfer Pump Test; 9/6/2016
- WO 1939088-01; LOS-DG-M1 0 DG Idle Start ATT 0-Idle

1R22 Surveillance Testing

- AR 2694963; NRC Id Small Air Gap and Small Missing Pieces on Cell Plates
- WO 1794309-01; Perform U-2 Fire Zone Ionization Smoke Det. CHNL Functional T; 5/27/2016
- AR 2631056; 1E22-F038 HPCS Injection Valve Limit Switch Needs Adjustment
- AR 2701394; NRC Identified: 2BDG Exhaust Manifold Question
- WO 1936557-01; Tech Spec Surveillance, Unit 2 HPCS DG Run, LOS-DG-M3AH 2B-Idle; 8/5/2016
- AR 2703747; NRC Question on Secondary Containment Testing
- LOS-CS-M1; Secondary Containment Integrity; Revision 29
- LOS-CS-SR1; Secondary Containment Leak Rate Test; Revision 6
- LS-0794; Safety-Related ComEd Nuclear Design Information Transmittal: RHR-WS Pumps performance and Limits; 4/8/1998
- LS-0865; Safety-Related ComEd Nuclear Design Information Transmittal: Acceptance Criteria for Quarterly Testing of HRHSW; 7/17/1998
- LOS-CS-Q1; Secondary Containment Damper Operability Test; Revision 36
- AR 2713552; Reactor Bldg. Vent Supply Fan Dampers No Air Flow Alarm
- AR 2623938; U2 DWFDs Fillup Rate Slow Trend Up
- LEP-EQ-115; Klockner-Moeller Circuit Breakers and Related MCC Equipment; Revision 18
- ER-AB-331-1006; BWR Reactor Coolant System Leakage Monitoring and Action Plan; Revision 2
- WO 1925505-01; LOS-RH-Q1 2A RHR WS Operability & Inservice Test; 8/18/2016
- TB2-3; LES-FP-05, Test Group 2E Fire Detector Test Data Sheet, Attachment 2E; 8/8/2016
- LES-FP-05 Fire Protection Detectors for Zone 2-28 U-2 DG Bldg. CSCS Pumprooms 674 Drawing; Undated
- WO 1922020-01; LOS-SC-Q1 1B SBLC Pump Quarterly Att 1B; 8/4/2016
- TS LOS-DC-Q2AHA; Tech Spec Surveillance; 250 VDC Battery; 7/20/2016

1EP6 Drill Evaluation

- AR 2702741; EP — Alternative Facility (Mazon) Uninhabitable; 8/10/2016
- Email from Michael Hayworth, Emergency Preparedness Manager, Important EP Notice — Alternative Facility at Mazon is Uninhabitable; 8/10/2016
- NARS; Nuclear Accident Reporting System Drill/Exercise; 9/9/2016
- Station Notice Temp Aid - 01; Mazon Relocation Center is Uninhabitable; 8/10/2016

2RS7 Radiological Environmental Monitoring Program

- CY-LA-170-301; Offsite Dose Calculation Manual; Revision 8
- LaSalle County Station 2015 Annual Radiological Environmental Operating Report; 5/12/2016
- AR 02628267; Check-In Self-Assessment; Radiological Environmental Monitoring Program; 5/26/2016
- AR 2670650; Chemistry, Radwaste, Effluent and Environmental Monitoring Audit Report; NOSA-LAS-16-04; 6/22/2016
- AR 02690071; Procedural Inadequacies; 7/7/2016
- AR 02541452; Questions Regarding LaSalle REMP; 8/3/2016
- EN-AA-408-4000; Radiological Groundwater Protection Program Implementation; Revision 6
- EN-LA-408-4160; RGPP Reference Material for LaSalle Generating Station; Revision 4
- CY-LA-170-2003; Onsite Groundwater and Storm Sewer Monitoring; Revision 9
- CY-AA-170-1000; Radiological Environmental Monitoring Program and Meteorological Program Implementation; Revision 8
- Sampling Procedures Manual; Environmental Incorporated Midwest Laboratory; Revision 15
- Work Order 01806899 01; Perform Maintenance of Meteorological Tower Instrumentation; 6/2/2015

4OA1 Performance Indicator Verification

- CY-AA-130-3010-F-01; Dose Equivalent Iodine Determination; January 2015 – June 2016
- ER-AA-2008; Mitigating Systems Performance Index (MSPI) Monitoring and Margin Evaluation; Revision 4
- ER-AA-600-1047; Mitigating System Performance Index Basis Document; Revision 11
- LS-AA-2015; Monthly Data Elements for RETS / PDCM Effluent Occurrences; July 2015 – June 2016
- LS-AA-2140; Monthly Data Elements for NRC Occupational Exposure Control Effectiveness; July 2015 – June 2016
- LS-AA-2200; Mitigating System Performance Index Data Acquisition & Reporting; Revision 5
- LS-MSPI-001; Mitigating System Performance Index Basis Document; Revision 15
- MSPI and WANO Reporting; Unit 1, Emergency Alternating Current Power (EAC); July 2015 – July 2016
- MSPI and WANO Reporting; Unit 1, High Pressure Core Spray (HPCS); July 2015 – July 2016
- MSPI and WANO Reporting; Unit 1, Residual Heat Removal System (RHR); July 2015 – July 2016
- MSPI and WANO Reporting; Unit 2, EAC Power; July 2015 – July 2016
- MSPI and WANO Reporting; Unit 2, High Pressure Core Spray (HPCS); July 2015 – July 2016
- MSPI and WANO Reporting; Unit 2, Residual Heat Removal System (RHR); July 2015 – July 2016
- MSPI, Unit 1 MSPI EAC Power System, Performance Limit Exceeded; July 2015 – July 2016
- MSPI, Unit 1 MSPI EAC Power System, Unreliability Index; July 2015 – July 2016
- MSPI, Unit 1 MSPI EAC Power System, Unavailability Index; July 2015 – July 2016
- MSPI, Unit 1 MSPI High Pressure Injection System, Unreliability Index; July 2015 – July 2016
- MSPI, Unit 1 MSPI High Pressure Injection System, Unavailability Index; July 2015 – July 2016
- MSPI, Unit 1 MSPI High Pressure Injection System, Performance Limit Exceeded; July 2015 – July 2016
- MSPI, Unit 1 MSPI RHR System, Unreliability Index; July 2015 – July 2016
- MSPI, Unit 1 MSPI RHR System, Unavailability Index; July 2015 – July 2016
- MSPI, Unit 1 MSPI RHR System, Performance Limit Exceeded; July 2015 – July 2016

- MSPI, Unit 2 MSPI EAC Power System, Performance Limit Exceeded; July 2015 – July 2016
- MSPI, Unit 2 MSPI EAC Power System, Unreliability Index; July 2015 – July 2016
- MSPI, Unit 2 MSPI EAC Power System, Unavailability Index; July 2015 – July 2016
- MSPI, Unit 2 MSPI High Pressure Injection System, Unreliability Index; July 2015 – July 2016
- MSPI, Unit 2 MSPI High Pressure Injection System, Unavailability Index; July 2015 – July 2016
- MSPI, Unit 2 MSPI High Pressure Injection System, Performance Limit Exceeded; July 2015 – July 2016
- MSPI, Unit 2 MSPI RHR System, Unreliability Index; July 2015 – July 2016
- MSPI, Unit 2 MSPI RHR System, Unavailability Index; July 2015 – July 2016
- MSPI, Unit 2 MSPI RHR System, Performance Limit Exceeded; July 2015 – July 2016
- MSPI Indicator Margin Remaining in Green, Unit 1, EAC Power, HPIS, RHR Systems; July 2015 – July 2016
- MSPI Indicator Margin Remaining in Green, Unit 2, EAC Power, HPIS, RHR Systems; July 2015 – July 2016
- NEI 99-02; Nuclear Energy Institute, Regulatory Assessment Performance Indicator Guideline; Revision 7

4OA2 Identification and Resolution of Problems

- AR 2694255; Erratic Operation of U2 Voltage Regulator
- AR 2694963; NRC ID Small Air Gap and Small Missing Pieces on Cell Plates
- AR 2695225; WGE, 1VY03C Failure to Auto Start
- AR 2697058; P21 Review Identified Potentially Affected Installed Items

4OA2 Action Requests Generated from NRC or IEMA Inspection

- AR 2694963; NRC ID Small Air Gap and Small Missing Pieces on Cell Plates
- AR 2701394; NRC Identified: 2BDG Exhaust Manifold Question
- AR 2713662; NRC Identified Pre-Fire Plan Discrepancy

4OA3 Followup of Events and Notices of Enforcement Discretion

- AR 2446319; NOS QV Rejected Welds
- AR 2450121; Main Steam SRV Test Results for L2R15
- AR 2454070; Unit 1 RB 710' Interlock Allowed Both Doors to be Opened
- AR 2539023; 2B33-F067B Leakage, Cracked Weld on Inspection Port
- EC 396711; Safety System Functional Analysis for Unit 1 & 2 Secondary Containment Airlock Doors; Revision 2
- EN 50888; Improper Weld Used on Gate Valve Cover; 3/13/2015
- LER 2015-002-01; Two Main Steam Safety Relief Valves Failed Inservice Inspection Pressure Test; 7/15/2015
- LER 2015-003-00; Reactor Recirculation Loop Discharge Isolation Valve Vent Line Leak Due to Weld Defect; 10/6/2015
- LER 2015-003-00; Secondary Containment Inoperable Due to Interlock Doors Open; 4/20/2015
- LER 2016-001-00; Secondary Containment Inoperable Due to Door Interlock Failure; 4/18/2016
- LOS-CS-M1; Secondary Containment Integrity; Revision 29

- LOS-CS-SR1; Secondary Containment Leak Rate Test; Revision 6
- MA-MW-796-101; ASME Fillet / Socket Weld Record; Revision 5
- Reactor Building Ventilation System Training Drawing
- WO 1747359-01; Implementation of Approved 2B33-F067B Mod; 2/12/2015

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Documents Access Management System
AR	Action Request (also known as condition reports and issue reports)
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CRD	Control Rod Drive
DG	Diesel Generator
EAC	Emergency Alternating Current
IMC	Inspection Manual Chapter
IP	Inspection Procedure
LER	Licensee Event Report
MCC	Motor Control Center
MDRFP	Motor–Driven Reactor Feed Pump
MSPI	Mitigating Systems Performance Index
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records System
PI	Performance Indicator
RHR	Residual Heat Removal
RR	Reactor Recirculation
SRV	Safety Relief Valve
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
VDC	Volts Direct Current

B. Hanson

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Sincerely,

/RA/

Billy Dickson, Chief
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Docket Nos. 50-373 and 50-374
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