

UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352

August 6, 2010

Mr. Michael J. Pacilio Senior Vice President, Exelon Generation Company, LLC President and Chief Nuclear Officer (CNO), Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2

NRC INTEGRATED INSPECTION REPORT 05000373/2010003;

05000374/2010003

Dear Mr. Pacilio:

On June 30, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your LaSalle County Station, Units 1 and 2. The enclosed inspection report documents the inspection results, which were discussed on July 14, 2010, with the Site Vice President, Mr. Dave Wozniak, and other members of your staff.

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

Based on the results of this inspection, one finding of very low safety significance was identified. This finding was determined to involve a violation of NRC requirements. However, because of the very low safety significance and because it was entered into your corrective action program, the NRC is treating this finding as a non-cited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy.

If you contest the subject or severity 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 a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the LaSalle County Station. In addition, if you disagree with the cross-cutting aspect assigned to any 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 LaSalle County Station.

M. Pacilio -2-

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

Sincerely,

/RA/

Kenneth Riemer, Chief Branch 2 Division of Reactor Projects

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

Enclosure: Inspection Report 05000373/2010003; 05000374/2010003

w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000373/2010003; 05000374/2010003

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: Marseilles, IL

Dates: April 1, 2010, through June 30, 2010

Inspectors: G. Roach, Senior Resident Inspector

F. Ramírez, Resident Inspector

M. Mitchell, Region III Health Physics Inspector

A. Scarbeary, Acting Resident Inspector J. Draper, Acting Resident Inspector

C. Phillips, Senior Resident Inspector, Dresden, RIII

P. Smagacz, Region III Reactor Engineer

J. Yesinowski, Illinois Dept. of Emergency Management

Approved by: Kenneth Riemer, Chief

Branch 2

Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000373/2010-003, 05000374/2010-003; 04/01/2010 - 06/30/2010; LaSalle County Station, Units 1 & 2; Operability Evaluations.

The report covers a 3-month period of inspection by the resident inspectors and announced inspection by a regional health physics inspector. One Green finding, which was a non-cited violation (NCV), was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process". Findings for which the significance determination process does not apply may be Green or be assigned a severity level after U.S. Nuclear Regulatory Commission (NRC) management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

• Green. The inspectors identified a finding of very low significance and a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings", for the licensee's failure to develop and implement an adequate surveillance test procedure to accurately assess the as-found trip setpoint for the pressure switches associated with various safety-related functions including but not limited to the main steam line low pressure isolation function. Specifically, the testing methodology incorporated in the surveillance procedures utilized by the licensee to determine the reset and as-found trip setpoints data unacceptably preconditioned the pressure switches prior to obtaining the required test data. The licensee entered this issue into their corrective action program (CAP). The inspectors identified no cross-cutting aspects associated with this finding.

The inspectors determined that the performance deficiency was more than minor and a finding because it impacted the Reactor Safety Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using IMC 0609, Appendix A, Attachment 1, "Significance Determination of Reactor Inspection Findings for At-Power Situations," using the Phase 1 Worksheet for the Mitigating Systems Cornerstone. The inspectors answered all of the Exhibit 1, Table 4a Mitigating Systems questions "no", therefore, the inspectors concluded that the finding was of very low safety significance. (Section 1R15)

B. <u>Licensee-Identified Violations</u>

None.

REPORT DETAILS

Summary of Plant Status

Unit 1

The unit began the inspection period operating at full power. On May 23, 2010, power was reduced to approximately 78 percent for control rod sequence exchange, control rod SCRAM time testing, and main steam isolation valve (MSIV), turbine control valve (TCV), and feedwater surveillances. The unit was restored to full power on May 23, 2010, where it remained for the rest of the inspection period.

Unit 2

The unit began the inspection period operating at full power. On May 29, 2010, power was reduced to approximately 75 percent for the 2B turbine driven reactor feed pump oil leak repairs, TCV No. 3 linear voltage differential transmitter repairs, and control rod SCRAM time testing. The unit was restored to full power on May 30, 2010, where it remained for the rest of the inspection period.

1. REACTOR SAFETY

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

1R01 Adverse Weather Protection (71111.01)

.1 Readiness of Offsite and Alternate AC Power Systems

a. Inspection Scope

The inspectors verified that plant features and procedures for operation and continued availability of offsite and alternate alternating current (AC) power systems during adverse weather were appropriate. The inspectors reviewed the licensee's procedures affecting these areas and the communications protocols between the transmission system operator (TSO) and the plant to verify that the appropriate information was being exchanged when issues arose that could impact the offsite power system. Examples of aspects considered in the inspectors' review included:

- coordination between the TSO and the plant during off-normal or emergency events;
- explanations for the events;
- estimates of when the offsite power system would be returned to a normal state;
 and
- notifications from the TSO to the plant when the offsite power system was returned to normal.

The inspectors also verified that plant procedures addressed measures to monitor and maintain availability and reliability of both the offsite AC power system and the onsite alternate AC power system prior to or during adverse weather conditions. Specifically, the inspectors verified that the procedures addressed the following:

- actions to be taken when notified by the TSO that the post-trip voltage of the
 offsite power system at the plant would not be acceptable to assure the
 continued operation of the safety-related loads without transferring to the onsite
 power supply;
- compensatory actions identified to be performed if it would not be possible to predict the post-trip voltage at the plant for the current grid conditions;
- re-assessment of plant risk based on maintenance activities which could affect grid reliability, or the ability of the transmission system to provide offsite power; and
- communications between the plant and the TSO when changes at the plant could impact the transmission system, or when the capability of the transmission system to provide adequate offsite power was challenged.

The inspectors performed a detailed walkdown of the switchyard, relay house and transformer yards to ensure the adequate material condition of all AC power systems and to identify potential hazards such as the existence of loose debris or transient equipment in these areas.

Documents reviewed are listed in the Attachment to this report. The inspectors also reviewed CAP items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their CAP in accordance with station CAP procedures.

This inspection constituted one readiness of offsite and alternate AC power systems sample as defined in Inspection Procedure (IP) 71111.01-05.

b. <u>Findings</u>

No findings of significance were identified.

.2 Summer Seasonal Readiness Preparations

a. <u>Inspection Scope</u>

The inspectors performed a review of the licensee's preparations for summer weather for selected systems, including conditions that could lead to an extended drought.

During the inspection, the inspectors focused on plant specific design features and the licensee's procedures used to mitigate or respond to adverse weather conditions. 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. Specific documents reviewed during this inspection are listed in the Attachment to this report. The inspectors also reviewed CAP items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their CAP in accordance with station CAP procedures. The inspectors' reviews focused specifically on the following plant systems:

- cycled condensate storage tank heaters;
- lake screen house ventilation;
- diesel generator (DG) rooms heating; and

 control room heating, ventilation and air-conditioning and auxiliary electrical equipment room heating, ventilation and air-conditioning systems damper alignment for summer.

This inspection constituted one seasonal adverse weather sample as defined in IP 71111.01-05.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

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

- Unit 2 B reactor protection system (RPS) and its alternate power supply;
- Unit 2 nitrogen instrument air;
- Unit 1 spent fuel pool cooling; and
- Units 1 and 2, Division III safety-related buses.

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, UFSAR, Technical Specification (TS) requirements, outstanding work orders (WOs), condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted four partial system walkdown samples as defined in IP 71111.04-05.

b. Findings

No findings of significance were identified.

.2 Semiannual Complete System Walkdown

a. <u>Inspection Scope</u>

On May 1, 2010, the inspectors performed a complete system alignment inspection of the Unit 1 and Unit 2 diesel fuel oil systems to verify the functional capability of the systems. These systems were selected because they were considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the systems to review mechanical and electrical equipment line ups, electrical power availability, system pressure and temperature indications, as appropriate, also component labeling, component lubrication, component and equipment cooling, hangers and supports, operability of support systems, and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding WOs was performed to determine whether any deficiencies significantly affected the systems 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 of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. <u>Inspection Scope</u>

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

- Unit 1 Division 2 DG Room (fire zone 7B2), 710 foot elevation;
- Unit 2 hydrogen seal oil unit (fire zone 5B8), 731 foot elevation;
- turbine oil package room (fire zone 5B3), 735 foot elevation;
- Unit 1 motor-driven reactor feed pump (MDRFP) room (fire zone 5B9), 731 foot elevation; and
- Unit 2 MDRFP room, turbine building (fire zone 5B10), 731 foot elevation.

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

b. Findings

No findings of significance were identified.

.2 Annual Fire Protection Drill Observation (71111.05A)

a. Inspection Scope

On May 4, 2010, the inspectors observed a fire brigade activation on Unit 2 with a MDRFP simulated oil skid fire. Based on this observation, the inspectors evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies; openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were:

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

Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings of significance were identified.

1R06 <u>Flooding</u> (71111.06)

.1 Internal Flooding

a. <u>Inspection Scope</u>

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures to identify licensee commitments. The specific documents reviewed are listed in the Attachment to this report. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water, such as the fire suppression or the circulating water systems. The inspectors also reviewed the licensee's CAP documents with respect to past flood-related items identified in the CAP to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the lake screen house to verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments:

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

b. Findings

No findings of significance were identified.

1R11 <u>Licensed Operator Requalification Program</u> (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On June 14, 2010, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification examinations to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

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

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator requalification program sample as defined in IP 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. <u>Inspection Scope</u>

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

- neutron monitoring systems; and
- Rockwell Edwards globe valves in the main steam line drain system.

The inspectors reviewed events such as where ineffective equipment maintenance had resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components (SSCs)/functions classified as (a)(2) or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

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

This inspection constituted two quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

No findings of significance were identified.

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

.1 <u>Maintenance Risk Assessments and Emergent Work Control</u>

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:

- Yellow risk on Units 1 and 2 due to unit common service water strainer work;
- emergent repair of Unit 1 reactor building ventilation power supply;
- protected equipment walkdown for Yellow risk on Unit 1 due to A DG work window;
- protected equipment walkdown for Yellow risk on Unit 2 due to Division II DG and RHR work window; and
- protected equipment walkdown for Yellow risk on Unit 2 due to B DG work window.

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.

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

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

.1 Operability Evaluations

a. <u>Inspection Scope</u>

The inspectors reviewed the following issues:

- control power indication of safety-related breakers;
- safety-related pressure switch preconditioning;
- Unit 2 CRD 30-39 high operating temperature;
- Level 3 DC Ground on Unit 1 Division 1 Bus 111Y; and
- hydraulic control unit directional control valves.

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 five samples as defined in IP 71111.15-05.

b. Findings

<u>Introduction</u>: The inspectors identified a finding of very low significance and a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings", for the licensee's failure to develop and implement an adequate surveillance test procedure to accurately assess the as-found trip setpoint for the pressure switches associated with the main steam line low pressure isolation function and various other safety-related functions.

Description: During a followup review of Task Interface Agreement 2009-006 "Unacceptable Preconditioning of Safety-Related Pressure Switches During Required Surveillance Testing at Montcello" issued by the NRC in September 2009, the inspectors identified that the licensee's surveillance testing procedures established a methodology which tested various safety-related pressure switches in a manner which was deemed unacceptable preconditioning by the NRC. In particular, the inspectors noted that during the LIS-MS-101A(201A) procedure, "Unit 1(2) Main Steam Line Low Pressure MSIV Isolation Calibration in Run Mode" Revision 5, the pressure switches in question were initially subject to main steam pressure. In accordance with the surveillance procedure, the inspectors noted that the basic testing methodology associated with these pressure switches was as follows: 1) isolate the pressure switch to be tested; 2) uncap the test connection; 3) connect the test equipment to the test connection; 4) increase the pressure until the pressure switch resets and record the reset test data; 5) bleed off the pressure until the pressure switch trips and record the as-found trip setpoint; 6) remove the test equipment and restore the pressure switch to operation. This testing methodology caused the pressure switch and associated contacts to change state when the system pressure was relieved in Step 2; again when pressure was applied to reset the pressure switch in Step 4; then a third time when the pressure was bled off to obtain the as-found trip setpoint in Step 5. This testing methodology subjected the pressure switch to a maximum pressure differential (operating pressure to atmospheric) and fully cycled the pressure switch prior to obtaining the as-found trip setpoint data. This particular surveillance was most recently performed on unit 1 MSIV pressure switches on April 16, 2010, and on unit 2 MSIV pressure switches on June 11, 2010. The inspectors review also identified that no engineering justification had been performed by the licensee to show that testing of these pressure switches in the above

manner did not impact the accuracy and reliability of the safety-related pressure switches.

The inspectors noted that the existing licensee pressure switch testing methodology ensured operability of the pressure switches subsequent to the performance of the applicable surveillance test, since the required as-left pressure switch setpoint was adjusted (if required) prior to the completion of the surveillance. The inspectors determined that the existing testing methodology potentially masks existing conditions; such as sticking contacts, mechanical binding, and setpoint drift; and could mask existing operability concerns because the pressure switch is fully cycled prior to obtaining the as-found trip setpoint data.

Inspection Manual Chapter (IMC) 9900 states, in part, that unacceptable preconditioning is defined as the alteration, variation, manipulation or adjustment of the physical condition of a SSC before or during TS surveillance or American Society of Mechanical Engineers (ASME) code testing that will alter one or more of SSCs operational parameters, which results in acceptable test results. Such changes could mask the actual as-found condition of the SSC and possibly result in an inability to verify the operability of the SSC. In addition, unacceptable preconditioning could make it difficult to determine whether the SSC would perform its intended function during an event in which the SSC might be needed. Therefore, the inspectors concluded that since the licensee had not performed an evaluation which justified that the preconditioning of the pressure switches was acceptable, the licensee's surveillance testing methodology which cycles a pressure switch prior obtaining as-found trip setpoint data constituted unacceptable preconditioning of the pressure switch.

Further investigation by the inspectors revealed that an additional 36 pressure switches in Units 1 and 2, which are relied upon to initiate TS-related protective functions in the areas of emergency core cooling system low pressure injection permissive, TCV fast closure, main condenser low vacuum scram, reactor core isolation cooling (RCIC) steam low pressure isolation, and reactor high pressure shutdown cooling isolation were tested in a manner similar to that described above with no engineering justification.

Analysis: The inspectors determined that the failure to develop and implement an adequate surveillance test procedure to accurately assess the as-found trip setpoint for the pressure switches associated with the main steam line low pressure isolation function and other safety-related functions constituted a performance deficiency warranting significance evaluation in accordance with IMC 0612, Appendix B, "Issue Disposition Screening." The inspectors determined that the performance deficiency was more than minor and a finding because it impacted the Reactor Safety Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and affected the cornerstone attribute of Equipment Performance. The inspectors did not identify any cross-cutting aspects associated with this finding.

The inspectors evaluated the finding using IMC 0609, Appendix A, Attachment 1, "Significance Determination of Reactor Inspection Findings for At-Power Situations," using the Phase 1 Worksheet for the Initiating Events Cornerstone. Since the inspectors answered all of the Exhibit 1, Table 4a Mitigating Systems questions "no," the inspectors concluded that the finding was of very low safety significance.

Enforcement: Title 10 CFR, Part 50, Appendix B, Criterion V "Instructions, Procedures and Drawings", states, in part, that activities affecting quality shall be prescribed by documented instructions of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Contrary to the above, most recently on June 11, 2010, the licensee failed to prescribe a documented instruction that was appropriate to the circumstances for the testing of the pressure switches for the Main Steam Low Pressure Group I Isolation, an activity affecting quality. Specifically, Procedure LIS-MS-201A incorporated a testing methodology that inappropriately manipulated the pressure switches prior to obtaining as-found data, thus resulting in unacceptable pre-conditioning. Because this violation was of very low safety significance and was entered into the licensee's CAP (Issue Report (IR) 988976), it is being treated as a NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy. (NCV 05000373/2010003-01, 05000374/2010003-01)

1R18 Plant Modifications (71111.18)

.1 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following temporary modification:

Unit 1 turbine bearing metal thermocouples.

The inspectors compared the temporary configuration changes and associated 10 CFR 50.59 screening and evaluation information 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. The inspectors also compared the licensee's information to operating experience information to ensure that lessons learned from other utilities had been incorporated into the licensee's decision to implement the temporary modification. The inspectors, as applicable, performed field verifications to ensure that the modifications were installed as directed; the modifications operated as expected; modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. Lastly, the inspectors discussed the temporary modification with operations, engineering, and training personnel to ensure that the individuals were aware of how extended operation with the temporary modification in place could impact overall plant performance. Documents reviewed in the course of this inspection are listed in the Attachment to this report.

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

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Post-Maintenance Testing

a. Inspection Scope

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

- Unit 2 B residual heat removal (RHR) run following pump maintenance;
- Unit 2 A WS pump run following refurbishment;
- Unit 1 B reactor water clean-up (RWCU) pump following pump repairs;
- Unit 2 A RPS motor generator set following repairs; and
- the ACB 1412 SAT feed to safety-related but during restoration to normal lineup.

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 TS, 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 PM 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 five PM testing samples as defined in IP 71111.19-05.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

a. <u>Inspection Scope</u>

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:

- Unit 1 RCIC pump and valve inservice testing (IST) and cold guick start (IST);
- undervoltage relay calibrations (Routine);

- Unit 1 B DG cooling water pump IST (Routine);
- Unit 1 reactor vessel high water level 8 high pressure core spray (HPCS) injection valve instrument channel calibrations (Routine); and
- Unit 1 A DG idle start (Routine).

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

- did preconditioning occur;
- were the effects of the testing adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- were acceptance criteria clearly stated, demonstrated operational readiness, and consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency were in accordance with TSs, the USAR, 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 IST activities, testing was performed in accordance with the applicable version of Section XI, AMSE 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 four routine surveillance testing samples and one IST sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. <u>Inspection Scope</u>

The inspectors evaluated the conduct of a routine licensee emergency drill on June 16, 2010 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 and control room simulator to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff 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 71114.06-05.

b. <u>Findings</u>

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2RS4 <u>In-Plant Airborne Radioactivity Control and Mitigation</u> (71124.03)

This inspection constituted one sample as defined in IP 71124.03-5.

.1 <u>Inspection Planning (02.01)</u>

a. <u>Inspection Scope</u>

The inspectors reviewed the plant UFSAR to identify areas of the plant designed as potential airborne radiation areas and any associated ventilation systems or airborne monitoring instrumentation. The instrumentation review included continuous air monitors (continuous air monitors and particulate-iodine-noble-gas-type instruments) used to identify changing airborne radiological conditions such that actions to prevent an overexposure may be taken. The review also included an overview of respiratory protection program and a description of the types of devices used.

The inspectors reviewed the UFSAR, TS, and emergency planning documents to identify location and quantity of respiratory protection devices stored for emergency use.

Inspectors reviewed the licensee's procedures for maintenance, inspection, and use of respiratory protection equipment including SCBA. Additionally, inspectors reviewed procedures for air quality maintenance and the reported Performance Indicators (PIs) to identify any related to unintended dose resulting from intakes of radioactive materials.

b. Findings

No findings of significance were identified.

.2 Engineering Controls (02.02)

a. Inspection Scope

The inspectors reviewed the licensee's use of permanent and temporary ventilation to determine whether the licensee used ventilation systems as part of its engineering controls (in lieu of respiratory protection devices) to control airborne radioactivity. The inspectors reviewed procedural guidance for use of installed plant systems, such as containment purge, spent fuel pool ventilation, and auxiliary building ventilation, and verified that the systems were used, to the extent practicable, during high-risk activities (e.g., using containment purge during cavity flood-up).

The inspectors reviewed two installed ventilation system's used to mitigate the potential for airborne radioactivity. The review determined whether the ventilation system's airflow capacity, flow path (including the alignment of the suction and discharges), and filter/charcoal unit efficiencies were consistent with maintaining concentrations of airborne radioactivity in work areas below the concentrations of an airborne area to the extent practicable. The inspectors also selected temporary ventilation system setups (e.g., high efficiency particulate air (HEPA)/charcoal negative pressure units, down draft tables, tents, metal "Kelly buildings," and other enclosures) used to support work in contaminated areas. The inspectors determined whether the use of these systems were consistent with licensee procedural guidance and as-low-as-is-reasonably-achievable (ALARA) concept.

The inspectors reviewed airborne monitoring protocols by selecting installed systems used to monitor and warn of changing airborne concentrations in the plant to determine whether the alarms and set points were sufficient to prompt licensee/worker action to ensure that doses are maintained within the limits of 10 CFR Part 20 and the ALARA concept. The inspectors also determined whether the licensee had established trigger points (e.g., the Electric Power Research Institute's "Alpha Monitoring Guidelines for Operating Nuclear Power Stations") for evaluating levels of airborne beta-emitting (e.g., plutonium-241) and alpha-emitting radionuclides.

b. Findings

No findings of significance were identified.

.3 <u>Use of Respiratory Protection Devices (02.03)</u>

a. Inspection Scope

The inspectors determined whether the licensee provided respiratory protective devices such that occupational doses are ALARA for those situations where it was impractical to employ engineering controls to minimize airborne radioactivity. The inspectors selected work activities where respiratory protection devices were used to limit the intake of radioactive materials, to determine whether the licensee performed an evaluation concluding that further engineering controls were not practical and that the use of respirators is ALARA. The inspectors also determined whether the licensee had

established means (such as routine bioassay) to determine whether the level of protection (protection factor) provided by the respiratory protection devices during use was at least as good as that assumed in the licensee's work controls and dose assessment.

The inspectors determined whether respiratory protection devices used to limit the intake of radioactive materials were certified by the National Institute for Occupational Safety and Health/Mine Safety and Health Administration (NIOSH/MSHA) or have been approved by the NRC per 10 CFR 20.1703(b). The inspectors selected work activities where respiratory protection devices were used. For these activities, the inspectors determined whether the devices used when consistent with their NIOSH/MSHA certification or any conditions of their NRC approval.

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

The inspectors selected individuals qualified to use respiratory protection devices, and determined whether they had been deemed fit to use the device by a physician.

The inspectors selected three individuals assigned to wear a respiratory protection device and observed them donning, doffing, and functionally checking the device as appropriate. The inspectors determined through interviews with these individuals whether they knew how to safely use the device and how to properly respond to any device malfunction or unusual occurrence (loss of power, loss of air, etc.).

The inspectors chose ten respiratory protection devices staged and ready for use in the plant or stocked for issuance for use to assess the physical condition of the device components (mask or hood, harnesses, air lines, regulators, air bottles, etc.) and reviewed records of routine inspections for each. The inspectors selected three of the devices, and reviewed records of maintenance on the vital components (e.g., pressure regulators, inhalation/exhalation valves, hose couplings). The inspectors determined whether onsite personnel assigned to repair vital components have received vendor-provided training.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

Based on UFSAR, TS, and emergency operating procedure requirements, the inspectors reviewed the status and surveillance records of five SCBAs staged in-plant for use during emergencies. The inspectors reviewed the licensee's capability for refilling and transporting SCBA air bottles to and from the control room and operations support center during emergency conditions. The inspectors selected three individuals on control room shift crews, and three individuals from designated departments currently assigned emergency duties (e.g., onsite search and rescue duties) to determine if control room operators and other emergency response and radiation protection (RP)

personnel (assigned in-plant search and rescue duties or as required by emergency operating procedures or the emergency plan) were trained and qualified in the use of SCBAs (including personal bottle change-out). The inspectors determined whether personnel assigned to refill bottles were trained and qualified for that task.

The inspectors determined whether appropriate mask sizes and types were available for use (in-field mask size and type should match what was used in fit-testing). The inspectors selected three on-shift operators to determine whether they have no facial hair that would interfere with the sealing of the mask to the face and whether vision correction (e.g., glasses inserts or corrected lenses) were available as appropriate.

The inspectors reviewed the past two years of maintenance records for SCBA units used to support operator activities during accident conditions and designated as "ready for service" to determine that any maintenance or repairs on any SCBA unit's vital components were performed by an individual, or individuals, certified by the manufacturer of the device to perform the work. The vital components typically are the pressure-demand air regulator and the low-pressure alarm. The inspectors reviewed the onsite maintenance procedures governing vital component work to determine any inconsistencies with the SCBA manufacturer's recommended practices. For those SCBAs designated as "ready-for-service," the inspectors determined whether the required, periodic air cylinder hydrostatic testing was documented and up-to-date, and the retest air cylinder markings required by the U.S. Department of Transportation were in place.

b. Findings

No findings of significance were identified.

.5 Problem Identification and Resolution 02.05

a. Inspection Scope

The inspectors determined whether problems associated with the control and mitigation of in-plant airborne radioactivity were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee CAP. The inspectors determined whether the corrective actions were appropriate for a selected sample of problems involving airborne radioactivity and were appropriately documented by the licensee.

b. Findings

No findings of significance were identified.

2RS4 Occupational Dose Assessment (71124.04)

This inspection constituted one sample as defined in IP 71124.04-5.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the results of RP program audits related to internal and external dosimetry (e.g., licensee's quality assurance (QA) audits, self-assessments, or other

independent audits) to gain insights into overall licensee performance in the area of dose assessment and focus the inspection activities consistent with the principle of "smart sampling."

The inspectors reviewed the most recent National Voluntary Laboratory Accreditation Program (NVLAP) accreditation report on the vendor to determine the status of the contractor's accreditation.

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

The inspectors determined whether the licensee's had established procedural requirements for determining when external and internal dosimetry is required.

b. Findings

No findings of significance were identified.

.2 External Dosimetry (02.02)

a. <u>Inspection Scope</u>

The inspectors determined whether the licensee's personnel dosimeters that require processing are NVLAP accredited including that the approved irradiation test categories for each type of personnel dosimeter were consistent with the types and energies of the radiation present and the way that the dosimeter was being used.

The inspectors evaluated the onsite storage of dosimeters before their issuance, during use, and before processing/reading. The licensee does not require issued dosimetry to be stored on site during the wear period, so the inspectors reviewed the guidance provided to rad-workers with respect to care and storage of dosimeters.

The inspectors determined whether non-NVLAP accredited passive dosimeters (e.g., direct ion storage sight read dosimeters), were used according to licensee procedures that provide for periodic calibration, application of calibration factors, usage, reading (dose assessment) and zeroing.

The inspectors assessed the use of active dosimeters (electronic dosimeters(ED)) to determine if the licensee uses a "correction factor" to address the response of the ED as compared to thermoluminescent/optically stimulated luminescence dosimeters for situations when the ED must be used to assign dose and whether the correction factor is based on sound technical principles.

As part of the problem identification and resolution review in 02.05 below, the inspectors selected dosimetry occurrence reports or CAP documents for adverse trends related to EDs, such as interference from electromagnetic frequency, dropping or bumping, failure to hear alarms, etc. The inspectors reviewed these reports to determine if the licensee had identified any trends and implemented appropriate corrective actions.

b. Findings

No findings of significance were identified.

.3 Internal Dosimetry (02.03)

.01 Routine Bioassay (In-Vivo)

a. <u>Inspection Scope</u>

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

The inspectors reviewed the whole body count process to determine if the frequency of measurements was consistent with the biological half-life of the nuclides available for intake. The inspectors reviewed the licensee's evaluation for use of its portal radiation monitors as a passive monitoring system to determine if instrument minimum detectable activities were adequate to determine the potential for internally deposited radionuclides sufficient to prompt investigation, as provided in 10 CFR 20.1502.

The inspectors selected four recently performed whole body counts and evaluated whether the counting system was used appropriately and included the necessary sensitivity for the potential radionuclides of interest. The inspectors reviewed the radionuclide library used for the count system to determine its appropriateness. The inspectors reviewed the licensee's 10 CFR Part 61 data analyses to determine if the nuclide libraries included appropriate gamma-emitting nuclides and appropriate "marker" nuclides for alpha emitters indicative of fuel degradation. The inspectors also reviewed the licensee's methods for assessing internal dose contributions from hard-to-detect nuclides to determine whether those nuclides were properly evaluated in the intake mix.

b. Findings

No findings of significance were identified.

.02 Special Bioassay (In-Vitro)

a. Inspection Scope

The inspectors reviewed the licensee's in-vitro monitoring program (i.e., urine and fecal analysis) including methods for collection, preservation and analysis of samples. On urinalysis result was reviewed to determine if sample analyses achieved appropriate detection thresholds (lower limits of detection) and that dose was calculated accordingly.

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

b. Findings

No findings of significance were identified.

.03 Internal Dose Assessment - Airborne Monitoring

a. Inspection Scope

The inspectors reviewed the licensee's program for airborne radioactivity assessment and dose assessment, as applicable, based on airborne monitoring and calculations of derived air concentration. The inspectors determined whether flow rates and collection times for air sampling equipment were adequate to allow lower limits of detection to be obtained. The inspectors also reviewed the adequacy of procedural guidance to assess internal dose if respiratory protection was used.

b. Findings

No findings of significance were identified.

.04 Internal Dose Assessments - Whole Body Count Analyses

a. Inspection Scope

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

b. Findings

No findings of significance were identified.

.4 Special Dosimetric Situations (02.04)

.01 <u>Dosimeter Placements and Assessment of Effective Dose Equivalent for External</u> Exposures

a. Inspection Scope

The inspectors reviewed the licensee's methodology for monitoring external dose in non-uniform radiation fields or where large dose gradients exist. The inspectors evaluated the licensee's criteria for determining when alternate monitoring, such as use of multi-badging, was to be implemented. The inspectors reviewed the licensee's dose assessments when multi-badging was used to determine if they were consistent with procedures.

b. Findings

No findings of significance were identified.

.5 Problem Identification and Resolution (02.05)

a. Inspection Scope

The inspectors reviewed CAP documents, self-assessments and audit reports generated during the twelve month period that preceded the inspection. The inspectors determined whether problems associated with internal dose assessment were being identified by the

licensee at an appropriate threshold and were properly addressed for resolution in the CAP.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

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

4OA1 Performance Indicator Verification (71151)

.1 Reactor Coolant System Specific Activity

a. <u>Inspection Scope</u>

The inspectors sampled licensee submittals for the reactor coolant system (RCS) specific activity PI for Units 1 and 2 for the period from the second quarter 2009 through the first quarter 2010. 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 5, were used. The inspectors reviewed the licensee's RCS chemistry samples, TS requirements, IRs, event reports and NRC Integrated Inspection Reports for the period of April 2009 through March 2010 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's CAP database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. In addition to record reviews, the inspectors observed a chemistry technician obtain and analyze a RCS sample. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings of significance were identified.

.2 Reactor Coolant System Leakage

a. Inspection Scope

The inspectors sampled licensee submittals for the RCS Leakage PI for Units 1 and 2 for the period from the second quarter 2009 through the first quarter 2010. 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 5, were used. The inspectors reviewed the licensee's operator logs, RCS leakage tracking data, IRs, event reports and NRC Integrated Inspection Reports for the period of April 2009 through March 2010 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's IR 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 RCS leakage samples as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

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

.1 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 of significance were identified.

.2 Semiannual Trend Review

a. <u>Inspection Scope</u>

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 4OA2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the six month period of January 2010 through June 2010, although some examples expanded beyond those dates where the scope of the trend warranted.

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

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

b. Findings

No findings of significance were identified.

4OA5 Other Activities

.1 (Closed) NRC Temporary Instruction 2515/173 Review of the Industry Groundwater Protection Voluntary Initiative

a. Inspection Scope

An NRC assessment was performed of the licensee's implementation of the NEI – Groundwater Protection Initiative (GPI), dated August 2007, (ML072610036) at the LaSalle County Station. Under the voluntary initiative, each site was to have developed an effective, technically sound groundwater protection program that aligned with the NEI initiative by August 2008.

The inspectors assessed whether the licensee evaluated work practices that could lead to leaks and spills and performed an evaluation of systems, structures, and components that contain licensed radioactive material to determine potential leak or spill mechanisms.

The inspectors determined whether the licensee completed a site characterization of geology and hydrology to determine the predominant groundwater gradients and potential pathways for groundwater migration from onsite locations to offsite locations. The inspectors also determined whether an onsite groundwater monitoring program had been implemented to monitor for potential licensed radioactive leakage into groundwater and the licensee had provisions for the reporting of its groundwater monitoring results. (See http://www.nrc.gov/reactors/operating/ops-experience/tritium/plant-info.html)

The inspectors reviewed the licensee's procedures for the decision making process for potential remediation of leaks and spills, including consideration of the long term decommissioning impacts. The inspectors also determined whether records of leaks and spills were being recorded in the licensee's decommissioning files in accordance with 10 CFR 50.75(g).

The inspectors reviewed the licensee's notification protocols to determine whether they were consistent with the Groundwater Protection Initiative and/or State of Illinois statutes. The inspectors assessed whether the licensee identified the appropriate local and state officials and conducted briefings on the licensee's groundwater protection initiative. The inspectors also assessed whether protocols were established for notification of the applicable local and state officials regarding detection of leaks and spills.

b. Findings

No findings of significance were identified; however, as specified in Section 2515/173-05 of the TI, the inspectors identified the following deviation from NEI – GPI protocols that were not fully implemented within the licensee's program.

(1) GPI Objective 1.2 – Site Risk Assessment

g. Establish the frequency for periodic reviews of SSCs and work practices.

The licensee identified that they had not established a frequency for periodic reviews of SSCs and work practices. This was identified as a fleet wide deficiency and was entered into the licensee's CAP as IR 924237-05. The action is being coordinated for all sites through a corporate initiative as well as this site.

4OA6 Management Meetings

.1 Exit Meeting Summary

On July 14, 2010, the inspectors presented the inspection results to Mr. D. Wozniak 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 In-Plant Airborne Radioactivity Control and Mitigation, Occupational Dose Assessment, and NRC Temporary Instruction 2515/173 Review of the Industry Groundwater Protection Voluntary Initiative inspection with Acting Plant Manager, Mr. J. Washko, on April 23, 2010. 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.

4OA7 Licensee-Identified Violations

None.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

- D. Wozniak, Site Vice President
- D. Rhoades, Plant Manager
- K. Aleshire, Exelon EP Programs Manager
- D. Amezaga, GL 89-13 Program Owner
- D. Anthony, Exelon NDE Manager West
- J. Bashor, Site Engineering Director
- L. Blunk, Operations Training Manager
- D. Carpenter, Senior ISFSI Project Manager
- H. Do, Corporate ISI Manager
- P. Endress, Design Engineer
- M. Entwistle, Operation Training
- J.C. Feeney, NOS Lead Assessor
- F. Gogliotti, System Engineering Senior Manager
- D. Henly, Design Engineer
- W. Hilton, Engineering Supervisor Mechanical/Structural
- J. Houston, Regulatory Assurance
- J. Hughes, Emergency Preparedness Coordinator
- K. Ihnen, Nuclear Oversight Manager
- A. Kochis, ISI Engineer
- R. Leasure, RP Manager
- B. Maze, ISFSI Project Manager
- J. Meyer, Exelon Nuclear Oversight Inspector
- J. Miller, NDE Level III
- J. Paczolt, Operation Training
- B. Rash. Maintenance Director
- J. Rommel, Design Engineering Senior Manager
- K. Rusley, Emergency Preparedness Manager
- J. Shields, ISI Program Supervisor
- S. Shields, Regulatory Assurance
- T. Simpkin, Regulatory Assurance Manager
- K. Taber, Operations Director
- W. Trafton, Shift Operations Superintendent
- J. Vegara, Regulatory Assurance
- R. Vickers, Health Physicist
- H. Vinyard, Work Management Director
- J. White, Site Training Director
- G. Wilhelmsen, Design Manager
- S. Wilkinson, Chemistry Manager (through April 2010)
- M. Martin, Acting Chemistry Manager (starting May 2010)
- C. Wilson, Station Security Manager

Nuclear Regulatory Commission

- K. Riemer, Chief, Reactor Projects Branch 2
- B. Dickson, Branch Chief, Plant Support Team, DRS/RIII

1

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000373/2010003-01, 05000374/2010003-01 NCV

Failure to develop and implement an adequate surveillance test procedure to accurately assess the as-found trip setpoint for the pressure switches associated with the main steam line low pressure isolation function and various other safety-related functions

Closed

05000373/2010003-01, 05000374/2010003-01 NCV

Failure to develop and implement an adequate surveillance test procedure to accurately assess the as-found trip setpoint for the pressure switches associated with the main steam line low pressure isolation function and various other safety-related functions

TI 2515/173

ΤI

Review of the Industry Groundwater Protection Voluntary

Initiative

Discussed

None

2

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 (71111.01)

Procedures:

- EN-LA-402-0005; Extreme Heat Implementation Plan LaSalle; Rev. 13
- LOP-AP-43; Emergency Load Conservation; Rev. 1
- LOA-GRID-001: Low Grid Voltage: Rev. 11
- LOS-ZZ-A2; Preparation for Summer Operation; Rev. 37
- WC-AA-107; Seasonal Readiness; Rev. 8

Issue Reports:

- 918284; NOS Id: Summer Readiness Issues; 5/11/2009
- 938036; List of Exceptions to LOS-ZZ-A2, Summer Readiness Surveillance; 7/2/2009
- 989586; Site Summer Readiness Actions-LaSalle; 11/5/2009
- 1041265; Makeup Line Rupture/Repairs; 3/11/2010
- 1041661; Summer readiness OTDM Required for U-2 Grid Blocks; 3/11/2010
- 1046673; Several SH Chiller Piping Supports Degraded; 3/23/2010
- 1053105; Several Bad Cooling Fans on Chiller Mountain Transformers; 4/6/2010
- 1062753; NOS Id: Summer Readiness System Reviews; 4/28/2010
- 1062775; NOS Id: Summer Readiness Contingency Work Orders; 4/28/2010
- 1074266; Heat Blankets Left on Ionics Piping; 5/27/2010
- 1075467; Reactor Building Blast Coils on Needlessly; 6/1/2010
- 1075823; Summer Readiness CD Temperature; 6/1/2010

Miscellaneous:

- Memorandum from D. Wozniak, Site VP to Susan Landahl, Senior VP Mid-West Nuclear Operations re Certification of 2010 Summer Readiness; 5/14/2010
- OP-AA-108-107-1001; Station Response to Grid Capacity Conditions; 4/14/2010
- OP-AA-108-107-1002; Interface Agreement between Exelon Energy Delivery and Exelon Generation for Switchyard Operations; Rev. 4

1R04 Equipment Alignment (71111.04)

Procedures:

- LOS-DG-M1; 0 Diesel Generator Operability Test; Rev. 69
- LOP-DO-01; Receiving and Sampling New Diesel Fuel Oil; Rev. 30
- LOS-DO-M1; Diesel Fuel Oil Monthly Analysis Verification (Stored Fuel Oil); Rev. 6
- LOS-DO-SR2; Diesel Fuel Oil Analysis Verification (New Fuel Oil); Rev. 14

Issue Reports:

- 513677; 2B DG B Air Compressor Feed Breaker Tripped; 7/27/2006
- 894250; Found Coupling Gap Exceeding 1/8" Criteria: 3/18/2009
- 922720; 2DO03P Auto Trip During Fuel Oil Transfer; 5/21/2009
- 961947; New Diesel Fuel Oil Water & Sediment Analysis
- 1066194; Replace EDG Fuel Lines; 5/6/2010

- 1066867; NRC Identified Questions Regarding Diesel Fuel Oil System; 5/7/2010
- 1068514; Excessive Oil on Skid; 5/12/2010

Drawings:

- DG-2; HPCS and Non-HPCS Fuel Oil Systems; Rev. 1
- Fig. 11-3; Fuel Oil System, Non-HPCS Diesels; 8/24/1999
- Fig. 11-4; HPCS Fuel Oil System; 8/24/1999
- IN-1; Drywell Pneumatic System Training Documentation; 4/23/2009
- M-66; P & ID Drywell Pneumatic System; Rev. AG
- M-85; P&ID Diesel Oil System; Rev. AC
- M-98; P & ID Fuel Pool Cooling Filter & Demineralizing System; Rev. AN
- M-98; P & ID Fuel Pool Cooling Filter & Demineralizing System; Rev. K
- M-98; P & ID Fuel Pool Cooling Filter & Demineralizing System; Rev. N
- M-98; P & ID Fuel Pool Cooling Filter & Demineralizing System; Rev. X
- M-132; P&ID Diesel Oil System; Rev. AB

Working Documents:

- LOP-DC-04E; Unit 1 Division III 125 VDC Distribution Electrical Checklist; Rev. 7
- LOP-DC-09E; Unit 2 Division III 125VDC Distribution Electrical Checklist; Rev. 6
- LOP-FC-01E; Unit 1 Fuel Pool Cooling System Electrical Checklist; Rev.4
- LOP-FC-01M; Unit 1 Fuel Pool Cooling Filter and Demineralizing Systems Mechanical Checklist; Rev.10
- LOP-HP-01E; Unit 1 High Pressure Core Spray Electrical Checklist; Rev. 10
- LOP-HP-02E; Unit 2 High Pressure Core Spray Electrical Checklist; Rev. 5
- LOP-IN-02E; Unit 2 Drywell Pneumatic System Electrical Checklist; Rev. 5
- LOP-IN-02M; Unit 2 Drywell Pneumatic System Mechanical Checklist; Rev. 18

Miscellaneous:

 Diesel Fuel Oil Systems Components Content/Skills Training Document; Current Version: April 2010

1R05 Fire Protection (71111.05)

Miscellaneous:

- Fire Pre-Plan for Fire Zone 5B3, Turbine Lube Oil Res. Elevation 735'0" R15; Rev. 2/2/2006
- Fire Pre-Plan for Fire Zone 5B9, 5B10, Unit 1 Motor Driven Reactor Feed Pump Room 731'0"; 2/2/2006

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- LSCS-FPR, Fire Protection Report for Fire Zone 5B3, Turbine Oil Package Room; Rev. 4
- LSCS-FPR, Fire Protection Report for Fire Zone 5B8 Unit 2 Hydrogen Seal Oil Unit; Rev. 4
- LSCS-FPR, Fire Protection Report for Fire Zone 5B9, Unit 1 MDRFP; Rev. 4
- LSCS-FPR, Fire Protection Report for Fire Zone 7B2 Div. 2, DG; Rev. 4

1R11 Licensed Operator Regualification Program

Miscellaneous:

- Out-of-the-box Drill Evaluation Scenario; 6/14/2010

1R12 Maintenance Effectiveness (71111.12)

Issue Reports:

- 823578; LOA-NR-101 Entry Due to a A SRM Failing Downscale; 9/29/2008
- 841284; Unexpected U-1 A2 Half Scram due to 1C51-K751G Failure; 11/6/2008
- 868523; SRM A Signal to Noise Ratio; 1/19/2009
- 871370; 2C SRM Period on Recorder did not respond during LIS-NR-401; 1/25/2009
- 871388; 2B SRM Downscale Trip Reset; 1/25/2009
- 879319; SRM Light Socket Degraded/Loose; 2/11/2009
- 873331; 2B SRM Spiking above Trip Setpoint; 1/29/2009
- 922727; RM Half Scram During LOS-NR-W1; 5/21/2009
- 924310; SRM D Causing RPS Relay 1C71-K13D to Chatter; 5/27/2009
- 951885; U-2 A SRM Upscale Alarm Erratic During Testing; 8/11/2009
- 953899; 2C SRM Drive Select Push Button Socket Failed; 8/16/2009
- 1013029; 2A SRM is Spiking Upscale and Causing a Relay to Chatter; 1/6/2010
- 1033311; SRM A Insulation Shield to Ground is Degraded; < 100KOhms; 2/20/2010
- 1036360; C SRM K14 Relay Needs Replaced; 2/27/2010
- 1041196; A SRM Upscale trip Causing 1C71A-K13A to Drop Out at; 3/11/2010
- 1043899; B SRM Indicating Downscale; 3/17/2010
- 1051495; Unit 1 'D" SRM Period Indication Anomalies; 4/1/2010
- 1061210; Relay Chattering; 4/25/2010
- 1067096; Additional Information for I/R #01061210 (Unit 2 "A" SRM)

Miscellaneous:

- APRM Failure Report; 4/20/2008 4/20/2010
- AR 931503; Common Cause Analysis for SRM and IRM system failures; 8/18/2009
- EACE AR 1058526-02; Equipment Apparent Cause Evaluation 1B21-F070 Valve has a Large Steam Leak; 2/8/2010
- IRM Failure Report; 4/20/2008 4/20/2010
- LPRM Failure Report; 4/20/2008 4/20/2010
- NNOE; Nuclear Network Operating Experience Report on Rockwell Edwards, Model 7516Y,
 2-1/2" Globe Valve body to bonnet steam leak at LaSalle Station; 2/8/2010
- OPRM Failure Report: 4/20/2008 4/20/2010
- SRM Failure Report; 4/20/2008 4/20/2010
- WO 1210315-01; Task Completion Status for SRM Light Socket Degraded/Loose Work Order; 11/18/2009

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

Issue Reports:

- 1053821; 1A FC – VR – Carbon Vault Rad Mon Downscale; 4/7/2010

Work Documents:

Drawings and Graphs:

- 1E-1-4232AP; Schematic Diagram Pimary Containment & Reactor Vessel Isolation System "PC" (B21H) Part 14; Rev. R

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Miscellaneous:

- LaSalle Operations Log; 4/7/2010 4/8/2010
- Protected Equipment List; 5/10/2010
- Protected Equipment List 1A Diesel Work Window; 4/12/2010
- Protected Equipment List Unit 2, Div. 2 Switchgear; 4/28/2010

1R15 Operability Evaluations (71111.15)

Procedures:

- LOP-DC-04; 125 VDC Sytem Division 1 Ground Location and Isolation; Rev. 28
- LOR-1H13-P603-A403; Control Rod Drive Hydraulic Temperature High; Rev. 3
- LTS-1100-4; Scram Insertion Times; Rev. 33
- OP-AA-102-102; General Area Checks and Operator Field Rounds; Rev. 7

Issue Reports:

- 806635; Div 1 & 2 ARI Control Panel Lamps are Failing; 8/13/2008
- 829524; Entered LOA-RP-201 Due to Failed Lamp on RPS
- 941038; OCB 9-10 Broken Light Socket; 7/12/2009
- 966450; U1 Inverter #3 Input Power Indicator Light Burned Out; 9/17/2009
- 974153; Light in B VE Recirculation Filter Burned Out; 10/2/2009
- 1069782; Unexpected CRD 30-39 High Temperature Alarm; 5/15/2010
- 1075021; Level 3 DC Ground on U1 Div1; 5/30/2010
- 1075857; Justification for Continued Operation (JCO) for Div 1 Ground; 6/1/2010
- 1076322; Div 1 Ground Cleared; 6/2/2010

Work Documents:

- WO 116568; Work Task Outline for Div 1 & 2 ARI Control Panel Lamps are Failing; 8/25/2008
- WO 1269505; Work Task Outline for U1 Inverter #3 Input Power Indicator Light Burned Out; 9/21/2009
- WO 1274794; Work Task Outline for Work Light in B VE Recirculation Filter Burned Out; 10/7/2009
- WO 1342499-03; Operational Risk Evaluation Screening: T-Shoot and Repair Level 3 DC Ground on U1 Div1; 6/1/2010
- WO 337587/AR 1075021; Full Action Request Report for Document Equipment Prompt Investigation (PINV); 6/2010

Drawings:

- 1E-1-4000FB; 125V DC Distribution Essential Div. 1; Rev. R
- 1E-1-4000FB; Key Diagram 125V DC Distribution Essential Div. 1; Rev R
- 1E-1-4005AM; 4160V Switchgear 141Y Auxiliary Compartment System "AP" Part 12; Rev. L
- 1E-1-4005AM; 4160V Switchgear 141Y Auxiliary Compartment System "AP" Part 12; Rev. L
- 1E-1-4205AE; Reactor Recirculation System "RR" (B33) Part 5; Rev. N
- 1E-1-4205AF; Reactor Recirculation System "RR" (B33) Part 6; Rev. N
- 1E-1-4207BA; Alternate Rod Insertion System "RD" (C22) Part 1; Rev. C
- 1E-1-4208AK; Feedwater Control System "FW" (C34) Part 10; Rev. Q
- 1E-1-4208AT; Feedwater Control System "FW" (C34) Part 18; Rev I
- 1E-1-4215AB; Reactor Protection System "RP" (C71) Part 2; Rev. H
- 1E-1-4226AA; Reactor Core Isolation Cooling System "RI" (E51) Part-1; Rev. Q
- 1E-1-4232AQ; Primary Containment & Reactor Vessel Isolation System "PC" (B21H) Part 15; Rev. Q

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Miscellaneous:

- Catalog # 246100B: Technical Specifications and Product Description for Megger Battery Ground Fault Tracer
- Ch-43.doc; Training Document: DC Distribution
- IR 1075021; Event / Issues Report Level 3 DC Ground on U1 Div 1; 5/29/2010

- SIL 173; GE-Hitachi Nuclear Energy Services Information Letter, Control Rod Drive High Operating Temperature; 9/21/2007
- SIL 173; GE Nuclear Energy Services Information Letter, Control Rod Drive High Operating Temperature; 5/28/1976

1R18 Plant Modifications (71111.18)

Procedures:

- TCCP/EC 369698; Defeat MCR Alarm from 1TR-TG001B Point 4 for Turbine Bearing 10 Reading UPSC; Rev. 0
- TCCP/EC 373511; 50.59 Review of Unit 1 Defeat 1TE-TG002C Input to 1TR-TG001C, Defeat 1TE-TG002A Input to 1TR-TG001C; Rev. -1
- TCCP 379514; Install TCCP to Bypass Point 2 on Recorder 1TR-TG001B and Point 1 on Recorder 1TR-TG001A; 4/2/2010

Issue Reports:

- 1071103; TCCP Program Review ID's Repeat failures; 5/19/2010

Working Documents:

- 50.59 Screening No. L08-80; EC369969, Defeat 1TE-TG002A Input to 1TR-TG001C; Rev. 0
- WO 1322325-01; Install TCCP Main Turbine Bearings at 1TR-TG001A Point 1; 4/7/2010
- WO 1322325-02; Install TCCP Main Turbine Bearings at 1TR-TG001B Point 2; 4/7/2010

1R19 Post-Maintenance Testing (71111.19)

Procedures:

- LOS-RH-Q1; RHR (LPCI) and RHR Service Water Pump and Valve Inservice Test for Modes 1,2,3,4 and 5; Rev. 74
- LOS-RH-Q2; RHR (LPCI) and RHR Service Water Valve Inservice Test for Operating, Startup and Hot Shutdown Conditions; Rev. 49
- LOP-RP-03; RPS Bus A Transfer; Rev. 25
- LOP-RT-02; Reactor Water Clean-up System (RWCU) Startup and Pump Transfer; Rev. 36

Issue Reports:

- 1067534; 1B RT Pump Tripped Within 2 Seconds During a Pump Start PMT; 5/10/2010

Work Documents:

- HLA LOP-RP-03; Heightened Level of Awareness Brief for LOP-RP-03 Swap of A RPS; 5/7/2010
- LES-GM-103B; Bus 141Y I.T.E. Breaker and TSC Switch Operational Test; 5/26/2010
- LOS-RH-Q1 Att 2B; Predefine Data Package for U2 B RHR System Operability and Inservice test; 4/28/2010
- WO 940395-03; Change Breaker Mag Trip Setting for MOV 2E12-F027B; 4/28/2010
- WO 1115073-02; Perform LES-GM-109 for 2E12F048B @ MCC 236Y- 1/A5 (2AP82E); 4/27/2010
- WO 1142947-02; Perform Meggering on Motor; 4/27/2010

1R22 Surveillance Testing (71111.22)

Procedures:

- LIS-HP-110; Unit 1 Reactor Vessel High Water level 8 HPCS Injection Valve Closure Instrumentation Channels A & B Calibration: Rev. 13

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- LOS-DG-M2; 1A(2A) Diesel Generator Operability Test; Rev. 79
- LOS-DG-Q3; 1B (2B) Diesel Generator Auxiliaries Inservice Test; Rev. 54
- LOS-RI-Q5; Reactor Core Isolation Cooling (RCIC) System Pump Operability, Valve Inservice Tests in Modes 1,2,3 and Cold Quick Start; Rev. 31
- MA-LA-773-502; UAT, SAT and Cross-Tie Feed Breakers Relay Calibration; Rev. 1

Working Documents:

- LOS-RI-Q5; Tech Spec Surveillance, U1 RCIC Cold-Quick Start; 4/28/2010
- WO 1188559-01; RX Vessel Level 8 & HPCS Inj. Valve Closure; 2/24/2010

Drawings:

- 1E-1-4200ZE; Loop Schematic Diagram Nuc Boiler Process Instr Sys "NB" (B21A) (Sargent & Lundy); Rev. A
- 1E-1-4222AB; Schematic Diagram High Pressure Core Spray System "HP." (E22A) Part 2; Rev. U
- 1E-1-4222AC; Schematic Diagram High Pressure Core Spray System HP (E22A) PT. 3 (Sargent & Lundy); Rev. Q
- 1E-1-4222AG; Schematic Diagram High Pressure Core Spray System "HP." (E22)PT.7; Rev. T

Miscellaneous:

 Common HLA Briefing for Unit 1 Variable Instrument Leg (1NB07C/7B) "Potential Instrumentation Spike due to Instrument Valving and the associated impact on Digital Feedwater Operation, Rx Recirculation Downshift and Rx Protection System (RPS)"; 5/13/2010

1EP6 Drill Evaluation

Miscellaneous:

- Emergency Exercise Scenario; 6/16/2020

2RS4 In-Plant Airborne Radioactivity Control and Mitigation

Procedures:

- RP-AA-301; Radiological Air Sampling Program; Rev. 2
- RP-AA-302; Determination of Alpha Levels and Monitoring; Rev. 2
- RP-AA-440; Respiratory Protection Program; Rev. 9
- RP-AA-441; Evaluation and Selection Process For Radiological Respirator Use; Rev. 4
- RP-AA-443; Quantitative Respirator Fit Testing; Rev. 7
- RP-AA-700-1301; Calibration, Source Check, Operation and Set-up of the Eberline Beta Air Monitor, Model AMS-4; Rev. 0
- RWP 10010665; L1R13 Emergent Work in the Reactor Building; Rev. 0

Issue Reports:

- 1041967; Check-in Self-Assessment Report – Occupational Dose Assessment; 4/2/2010

2RS4 Occupational Dose Assessment

Procedures:

- RP-AA-203-1001; Personnel Exposure Investigations; Revision 6
- RP-AA-210; Dosimetry Issue, Usage, and Control; Revision 17
- RP-AA-210-1001; Neutron Dose Estimation (Neutron/Gamma Ratio Calculation); Revision 3

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- RP-AA-211; Personnel Dosimetery Performance Verification; Revision 7

- RP-AA-220; Bioassay Program; Revision 6
- RP-AA-221; Whole Body Count Data Review; Revision 1
- RP-AA-222; Methods for Estimating Internal Exposure From In Vivo and In Vitro Bioassay Data; Revision 3
- RP-AA-250: External Dose Assessments from Contamination: Revision 4
- RP-AA-270; Prenatal Radiation Exposure; Revision 6
- RP-AA-350; Personnel Contamination monitoring, Decontamination and Reporting; Revision 8
- RP-AA-350-1001; Response to Guardhouse Portal Monitor Alarms; Revision 0
- RP-AA-401 ALARA Plan L1R13 Reactor Building Emergent Decontamination of Reactor Water Clean-up Valve Aisle; Revision 9
- RP-AA-462-1001; Controls For Portable X-Ray Radiography; Revision 1

Issue Reports:

- AR 968675; Common Cause Analysis on Electronic Dosimeter Alarms; 10/15/2009

Working Documents:

- Assignment 1041954; Check-in Self-Assessment Report In-plant Airborne Radioactivity Control and Mitigation; 4/9/2010
- Assignment 1042718; Check-in Self-Assessment: Review of Implementation of the Industry Groundwater Protection Voluntary Initiative

Miscellaneous:

- NEI Groundwater Protection Initiative NEI Peer Assessment Report; 2/28/2010
- NVLAP Certification for Global Dosimetry Solutions; 8/3/2009
- SR 2008-001; Audit Report for Global Dosimetery Solutions, Inc.; 3/20/2008

4OA1 Performance Indicator Verification (71151)

Issue Reports:

- 1066414; Summary of RSI Gamma Scan Report for L1C13; 5/6/2010

Miscellaneous:

- LOS-AA-S201; Unit 2 TS Shiftly Surveillance, PM ID 95978-01; 9/18/2009
- LS-AA-2100; Monthly Data Elements for NRC Reactor Coolant System Leakage; monthly reports for 4/2009 – 3/2010
- LS-AA-2090; Monthly Data Elements for NRC Reactor Coolant System Specific Activity; monthly reports for 4/2009 – 3/2010
- NEI 99-02; NEI Regulatory Assessment Performance Indicator Guideline; Rev. 5
- Unit 1 Reactor Coolant System Activity Performance Indicators, 4/2008 3/2010
- Unit 2 Reactor Coolant System Activity Performance Indicators, 4/2008 3/2010

4OA2 Identification and Resolution of Problems (71152)

Issue Reports:

- 821433; Appendix R Battery Pack Water Level at Middle of Cells; 9/23/2008
- 866099; Catastrophic High Voltage Bushing Failure; 1/13/2009
- 873357; L2R12 LL NOS ID: Protected Pathway Management; 1/29/2009
- 881792; NOS ID: CCA Actions Not Created; 2/17/2009
- 895558; Revise LOA-RH-101/201 Due to Single Point Vulnerability; 3/20/2009
- 897651; Seismic Monitor Alarm Actuated by Free Field Sensor; 3/25/2009
- 910714; NOS ID: EFR Inappropriately Cancelled; 4/23/2009
- 925176; Procedure Change for LGP 3-2; 5/29/2009

- 949419; Perform Aggregate Review of U1 Events During Current Cycle; 8/4/2009
- 973592; B/C RHR Pump Area Cooler Fan 2VY03C Test Issue; 10/1/2009
- 973773; Work Order Not Executed as Intended; 10/2/2009
- 978228; Procedure LOP-VQ-04 Needs De-Inerting Step Clarified; 10/12/2009
- 1040589; Flowserve P21 Notice: Valves 2" & Under 848, 849, 828 & 829; 3/9/2010
- 1041415; Quarterly Clearance Audit Discrepancies; 3/11/2010
- 1045983; Perform ACE for Issues Related to Control of Quality Parts; 3/22/2010
- 1052665; NOS Id: Improper CAPR Closure; 4/5/2010
- 1060079; NOS Id: Operating Experience Report Not Generated; 4/22/2010
- 1064018; Div 3 Ground Detector Trend; 4/30/2010

Issue Reports Resulting from NRC/IEMA Inspection:

- 01066772; Strainer Drain Valve Leaking Slightly; 5/7/2010
- 01066857; Security-Partial Loss Of Power To BRE's; 05/07/2010
- 1073174; NRC Identified Green Trickle Light Not Light For 2ll216e; 05/25/2010
- 1074277; NRC Identified ELBP 1-82 Fast Charge Line On; 05/27/2010
- 1074306; NRC Identified Issue; 05/27/2010
- 1076876; NRC Questioned DEHC; 6/30/2010
- 1077183; Rm NRC Identified Seat Leak On HCU 34-59; 6/4/2010
- 1079175; NRC Identified Issues In DG Rooms On U-1; 6/10/2010
- 1081272; NRC Question Regarding EP Drill And Classification; 6/16/2010

Miscellaneous:

- AR 879269-02; Effectiveness Review, Common Cause Assessment; 4/28/2010
- AR 999387; Common Cause Analysis Trend Reviews identifies Potential Gaps in Operations Fundamental Behaviors; 1/14/2010
- AR 1001170-02; Common Cause Analysis Corrective Action Program and Self-Assessment AR 1041629- 02; Common Cause Analysis Report for L1R13 Radiation Protection Behavior Correction Specialist for 1/27/2010 – 3/1/2010; 4/8/2010
- AR 1058644-02; Common Cause Analysis Report for Level 5 Reactivity Management Issue Trends for January 2009 through December 2009; 5/10/2010
- CR 968675; Common Cause Analysis Electronic Dosimeter (ED) Alarms; 10/15/2009
- CR 1061541; Common Cause Analysis EP Failures during Operations Training; 5/20/2010
- CR 1061668-02; Common Cause Analysis Report L1R13 Personnel Contamination Events; 5/8/2010
- FMS Yellow Fundamentals Windows Trend for 2009; 1/7/2010
- IR 1066478; Event Report 2CW01PA Circ Water Pump Tripped When Started; 5/2010

LIST OF ACRONYMS USED

AC Alternating Current

ADAMS Agencywide Document Access Management System

ALARA As-Low-As-Is-Reasonably-Achievable
AMSE American Society of Mechanical Engineers

CAP Corrective Action Program
CFR Code of Federal Regulations

CRD Control Rod Drive
DC Direct Current
DG Diesel Generator

DRP Division of Reactor Projects

ED Electronic Dosimeter
GE General Electric

GPI Groundwater Protection Initiative
HEPA High Efficiency Particulate Air
HPCS High Pressure Core Spray
IMC Inspection Manual Chapter
IP Inspection Procedure

IR Issue Report

ISI Inservice Inspection IST Inservice Testing

LPCI Low Pressure Coolant Injection
MDRFP Motor-Driven Reactor Feed Pump
MSHA Mine Safety & Health Administration

MSIV Main Steam Isolation Valve

NCV Non-Cited Violation
NEI Nuclear Energy Institute

NIOSH National Institute for Occupational Safety & Health

NRC U.S. Nuclear Regulatory Commission

NVLAP National Voluntary Laboratory Accreditation Program

PARS Publicly Available Records System

PI Performance Indicator PM Post-Maintenance QA Quality Assurance

RCIC Reactor Core Isolation Cooling

RHR Residual Heat Removal
RP Radiation Protection
RPS Reactor Protection System
RWCU Reactor Water Cleanup

SCBA Self-Contained Breathing Apparatus

SIL Service Information Letter

SSC Systems, Structures, and Components

TCV Turbine Control Valve TS Technical Specification

TSO Transmission System Operator

UFSAR Updated Final Safety Analysis Report

WO Work Order

M. Pacilio -2-

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Sincerely,

/RA/

Kenneth Riemer, Chief Branch 2 Division of Reactor Projects

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

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Letter to M. Pacilio from K. Riemer dated August 6, 2010

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2

NRC INTEGRATED INSPECTION REPORT 05000373/2010003;

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