



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

August 1, 2008

Mr. Charles G. Pardee
Chief Nuclear Officer and
Senior Vice President
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2
NRC INTEGRATED INSPECTION REPORT 05000373/2008003;
05000374/2008003

Dear Mr. Pardee:

On June 30, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your LaSalle County Station, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on July 2, 2008, with Site Vice President, Mr. Daniel Enright, and other members of your staff.

Based on the results of this inspection, no NRC-identified or self-revealed findings of safety significance were identified. There were no findings involving a violation of NRC requirements.

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

Sincerely,

/RA Robert J. Orlikowski for/

Kenneth Riemer, Chief
Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000373/2008003; 05000374/2008003
w/Attachment: Supplemental Information

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Letter to C. Pardee from K. Riemer dated August 1, 2008

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cc w/encl: Site Vice President - LaSalle County Station
Plant Manager - LaSalle County Station
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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000373/2008003; 05000374/2008003

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: Marseilles, Illinois

Dates: April 1, 2008 through June 30, 2008

Inspectors: G. Roach, Senior Resident Inspector; as of May 2, 2008
D. Kimble, Senior Resident Inspector; until May 1, 2008
F. Ramírez, Resident Inspector
M. Mitchell, Region III Radiation Protection Inspector
N. Shah, Region III Branch 2 Project Engineer
J. Yesinowski, Illinois Dept. of Emergency Management

Approved by: Kenneth Riemer, Chief
Branch 2
Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

IR 05000373/2008003, 05000374/2008003; 4/01/2008 - 6/30/2008; LaSalle County Station, Units 1 & 2; routine integrated report.

The inspection was conducted by U.S. Nuclear Regulatory Commission (NRC) resident inspectors and regional inspectors. The report covers a three-month period of resident inspection, and announced baseline inspection by a regional health physics inspector. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector-Identified and Self-Revealed Findings

No findings of significance were identified.

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

Summary of Plant Status

Unit 1

The unit began the inspection period operating at full power. On May 25, 2008, power was reduced to 60 percent for control rod pattern sequence adjustment and main turbine valve surveillance testing. Operation at full power resumed on May 25, 2008, and the unit remained operating at or near full power for the rest of the inspection period.

Unit 2

The unit began the inspection period operating at full power. On April 29, 2008, the unit was ramped down to 82 percent power to repair the main turbine control valve #4 linear variable differential transformer (LVDT) #2. The unit was returned to full power on April 29, 2008, where it remained operating at full power until May 17, 2008. At this time, power was reduced to 55 percent for interior control rod SCRAM time testing/channel distortion testing. Full power was restored on May 19, 2008, and the unit remained operating at or near full power 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:

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

- The 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;
- The 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;
- A 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
- The 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.

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

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

b. Findings

No findings of significance were identified.

.2 Summer Seasonal Readiness Preparations

a. Inspection Scope

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 as a result of high temperatures.

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. Documents reviewed during this inspection are listed in the Attachment to this report. The inspectors also reviewed Corrective Action Program (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 corrective action procedures. The inspectors' reviews focused specifically on the following plant systems:

- Diesel generator building ventilation (VD);
- Main control room ventilation (VC) and auxiliary electrical equipment room ventilation (VE); and
- Main power, unit auxiliary, and station auxiliary transformers.

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

b. Findings

No findings of significance were identified.

.3 External Flooding

a. Inspection Scope

The inspectors reviewed UFSAR and related flood analysis documentation to identify those areas susceptible to external flooding. Design basis documentation indicated that LaSalle was classified as a “dry” site since external flooding was not a threat to the plant. This was based on the top of the LaSalle dike being 710 feet in elevation and the plant grade being 710 feet, 6 inches. Probable maximum flooding is at an elevation of 704 feet, 4 inches.

The inspectors reviewed calculation L-002536, “Probable Maximum Precipitation (PMP) Basin Area B1 Water Level Evaluation,” Revision 1, dated March 20, 2000. This calculation showed that the PMP water level was below the lowest exterior entrances of safety-related buildings. Therefore, the PMP had no adverse impact on the safety-related function of the plant. The inspectors also reviewed calculation WR-LS-PF-9, “Probable Maximum Flood in Illinois River,” Revision 0, dated January 6, 1976, which concluded that LaSalle was a “dry” site with regard to flooding from the Illinois River. The site was listed as 180 feet above the elevation of the river. The inspectors additionally reviewed calculation WR-LS-PF-7, “Wind Wave Analysis,” Revision 0, dated August 13, 1975, which concluded that the plant site was unaffected by wave run-up due to high winds at maximum flood lake level. Additionally, the inspectors also performed walk down inspections of the accessible portions of the Lake Screen House and exterior plant grounds. Documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted one external flooding sample as defined in IP 71111.01-05.

b. Findings

No findings of significance were identified.

.4 Readiness for Impending Adverse Weather Condition – Severe Thunderstorm Watch

a. Inspection Scope

Since thunderstorms with potential tornados and high winds were forecast in the vicinity of the facility for May 30, 2008, the inspectors reviewed the licensee’s overall preparations and protection for the expected weather conditions. On May 30, 2008, the

inspectors walked down the main and auxiliary power systems, in addition to the licensee's emergency AC power systems, because their safety-related functions could be affected or required as a result of high winds, tornado-generated missiles or the loss of offsite power. The inspectors evaluated the licensee staff's preparations against the site's procedures and determined that the staff's actions were adequate. During the inspection, the inspectors focused on plant specific design features and the licensee's procedures used to respond to specified adverse weather conditions. The inspectors also toured the plant grounds to look for any loose debris that could become missiles during a tornado. Additionally, the inspectors reviewed the UFSAR and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant specific procedures. The inspectors also reviewed a sample of CAP items to verify that the licensee identified adverse weather issues at an appropriate threshold and dispositioned them through the CAP in accordance with station corrective action procedures. Documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted one readiness for impending adverse weather condition 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 Alignment Verifications

a. Inspection Scope

The inspectors performed a partial equipment alignment verification of the following equipment trains to verify operability and proper equipment lineup. These systems were selected based upon risk significance, plant configuration, system work or testing, or inoperable or degraded conditions:

- Unit 1, High Pressure Core Spray (HPCS) – protected pathway;
- Unit 2, Reactor Core Isolation Cooling (RCIC) during Division III work week;
- Unit 1 HPCS Diesel (1B) – protected pathway; and
- 2A Instrument Nitrogen (IN) in preparation for a 2B IN work window.

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 during this inspection are listed in the Attachment to this report.

These partial equipment alignment verifications constituted four inspection samples as defined in IP 71111.04-05.

b. Findings

No findings of significance were identified.

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

On June 7, 2008, the inspectors performed a complete system alignment inspection of the Unit 1 and Unit 2 Control Rod Drive (CRD) to verify the functional capability of the system. This system was selected because it was considered both safety-significant and risk-significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment line ups, electrical power availability, system pressure and temperature indications, component labeling, component lubrication, component and equipment cooling, hangers and supports, and operability of support systems. They verified that ancillary equipment or debris did not interfere with equipment operation. They also reviewed a sample of past and outstanding WOs to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed during this inspection 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 Quarterly Resident Inspector Fire Zone Inspections (71111.05Q)

a. Inspection Scope

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

- Fire Zone 3I1, Unit 2 - General Area, Elevation 673'4";
- Fire Zone 4A, Auxiliary Building Upper Ventilation Equipment Floor, Elevation 815'0";
- Fire Zone 4B, Auxiliary Building Lower Ventilation Equipment Floor, Elevation 786'6";
- Fire Zone 4D3, Unit 1 - Electrical Equipment Room, Elevation 749'0";
- Fire Zone 4D4, Unit 2 - Electrical Equipment Room, Elevation 749'0"; and
- Fire Zone 5A4, Cable Zone, Elevation 749'0".

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 had 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, 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 during this inspection are listed in the Attachment to this report.

These activities constituted six 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 8, 2008, the inspectors observed a fire brigade activation for a simulated hydrogen fire associated with the Unit 2 main generator in Fire Zone 5B6. 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 apparatus (SCBA);
- 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 during this inspection 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 Flooding (71111.06)

.1 Internal Flooding

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures to identify licensee commitments. The specific documents reviewed are listed in the Attachment. 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 following plant area(s) to assess the adequacy of all 18 watertight doors and verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments:

- Unit 1 and 2 core standby cooling system pump rooms;
- Unit 1 and 2 Division III switchgear rooms;
- Unit 1 and 2 amertap rooms/condensate pits; and
- Unit 1 and 2 reactor building lower raceway, Elevation 673'0".

Documents reviewed during this inspection are listed in the Attachment to this report.

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

b. Findings

No findings of significance were identified

1R07 Annual Heat Sink Performance (71111.07)

.1 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the licensee's testing of the 1A diesel generator (DG) heat exchanger to verify that potential deficiencies did not mask the licensee's ability to detect degraded performance, to identify any common cause issues that had the potential to increase risk, and to ensure that the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors reviewed the licensee's observations as compared against acceptance criteria, the correlation of scheduled testing and the frequency of testing, and the impact of instrument inaccuracies on test results. Inspectors also verified that test acceptance criteria considered differences between test conditions, design conditions, and testing conditions. Documents reviewed during this inspection are listed in the Attachment to this report.

This annual heat sink performance inspection constituted one sample as defined in IP 71111.07-05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Quarterly Resident Inspector Observation of Licensed Operator Training (71111.11Q)

a. Inspection Scope

The inspectors observed a training crew during validation of an evaluated simulator scenario to be used for licensed operator training during the current training cycle. During the observation, the inspectors reviewed licensed operator performance in mitigating the consequences of events. The scenario included multiple equipment and instrumentation failures, a transient resulting in a complex loss of coolant accident, and the declaration of a site area emergency. Areas observed by the inspectors included: clarity and formality of communications, timeliness of actions, prioritization of activities, procedural adequacy and implementation, control board manipulations, managerial oversight, and group dynamics. Additionally, the inspectors observed the post-scenario critiques performed by the simulator instructor staff evaluating the crew to ensure that all aspects of crew performance were adequately captured. Documents reviewed during this inspection are listed in the Attachment to this report.

This licensed operator requalification observation constituted one inspection sample as defined by IP 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

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

- 2A Emergency Diesel Generator (EDG) Damper Failure;
- CRD system; and
- Reactor Recirculation 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 Code of Federal Regulations (CFR) 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 during this inspection are listed in the Attachment to this report.

This inspection constituted three 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)

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:

- Planned Maintenance on Division III Battery (yellow risk);
- Planned Unit 2 Division I work window (yellow risk);
- Bus 1 out of service with storms impacting the site;
- Unit 2 Motor Driven Reactor Feed Pump (MDRFP) work window (yellow risk);
- Unit 1 Standby Gas Treatment(SBGT) work window (yellow risk);
- Unit 1 RCIC work window (yellow risk); and
- 2A Fuel Handling Ventilation Radiation Monitor emergent replacement.

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, as applicable, to verify risk analysis assumptions were valid and applicable site requirements were met for equipment deemed to be protected. Documents reviewed during this inspection are listed in the Attachment to this report.

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

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following.

- Effects of ultra low sulfur diesel fuel oil (ULSD) on EDGs;
- 2C Residual Heat Removal (RHR) Minimum Flow Valve failure to reposition;
- Technical Support Center (TSC) Ventilation Damper Failure;
- Drywell (DW) floor drains, unidentified leak rate, v-notch weir plugging;
- 2B DG Diesel Oil Storage Tank level; and
- Feedwater (FW) isolation valve check valve 2B21-F032A steam leak.

The inspectors selected these potential operability issues based on the risk-significance of the associated SSCs. 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 also reviewed a sampling of CAP documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed during this inspection are listed in the Attachment to this report.

The inspectors' review of these operability evaluations and issues constituted six inspection samples as defined in IP 71111.15-05.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

.1 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following temporary modification:

- Auxiliary electrical equipment ventilation system (VE) compressor new Plant Process Computer (PPC) data points.

The inspectors reviewed the addition of external monitoring equipment on the VE chiller compressor. The instrumentation was added to provide additional compressor performance information for troubleshooting purposes in the event of a compressor failure. 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 system(s). 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 during 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 (PM) Testing (71111.19)

.1 PM Testing

a. Inspection Scope

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

- 2A RHR pump run after system maintenance;
- 2B DG return to service run;
- 0A diesel fire pump run after a work window; and
- Unit 1 Standby Gas Treatment System (SBGT) run after a maintenance outage.

These activities were selected based upon the SSC'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 during this inspection are listed in the Attachment to this report.

This PM testing inspection constituted four samples as defined in IP 71111.19-05.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

.1 Routine Surveillance Testing

a. Inspection Scope

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

- LOS-CS-Q1: secondary containment damper testing;
- LOS-RD-SC7: fuel channel interference monitoring;
- 2A DG idle start; and
- Unit 2 transverse incore probe (TIP) system dataset and subsequent local power range monitor (LPRM) gain adjustments.

The inspectors observed in-plant activities and reviewed procedures and associated records to determine whether: any preconditioning occurred; effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing; acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis; plant equipment calibration was correct, accurate, and properly documented; as-left set points were within required ranges; the calibration frequency was in accordance with TS, the UFSAR, procedures, and applicable commitments; measuring and test equipment calibration was current; test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied; test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used; test data and results were accurate, complete, within limits, and valid; test equipment was removed after testing; where applicable, 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 the safety functions; and all problems identified during the testing were appropriately documented and dispositioned in the CAP. Documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted four routine surveillance testing samples as defined in IP 71111.22, sections -02 and -05.

b. Findings

No findings of significance were identified.

.2 Inservice Testing Surveillance

a. Inspection Scope

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

- LOS-HP-Q1: HPCS system inservice test.

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

This inspection constituted one inservice inspection 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 (EP) Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on June 5, 2008, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the TSC 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 EP drill observation inspection constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

.1 Inspection Planning

a. Inspection Scope

The inspectors reviewed the plant UFSAR to identify applicable radiation monitors associated with transient high and very high radiation areas including those used in remote emergency assessment.

The inspectors identified the types of portable radiation detection instrumentation used for job coverage of high radiation area work, other temporary area radiation monitors currently used in the plant, continuous air monitors associated with jobs with the potential for workers to receive 50 mrem committed effective dose equivalent (CEDE), whole body counters, and the types of radiation detection instruments utilized for personnel release from the radiologically controlled area.

The inspectors verified calibration, operability, and alarm set point (if applicable) of the following instruments:

- IPM 7 Personnel Contamination Monitor;
- Siemens Electronic Alarming Dosimeter;
- Ludlum Model 3 Handheld Frisker;
- NE Technologies R-11 Alpha/Beta Discriminator Monitor; and
- Eberline AMS-4.

The inspectors determined that there were no instances where the instrument was found significantly out of calibration. The inspectors also reviewed the licensee's 10 CFR Part 61 source term reviews to determine if the calibration sources used are representative of the plant source term. Documents reviewed during this inspection are listed in the Attachment to this report.

This radiation monitoring instrumentation and protective equipment inspection constituted three samples as defined in IP 71121.03-5.

b. Findings

No findings of significance were identified.

.2 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed the licensee's self-assessments, audits, Licensee Event Reports (LERs), and Special Reports that involved personnel contamination monitor alarms due to personnel internal exposures to verify that identified problems were entered into the CAP for resolution. All event reports involving internal exposures greater than 50 mrem CEDE were reviewed to determine if the affected personnel were properly monitored utilizing calibrated equipment and if the data was analyzed and internal exposures properly assessed in accordance with licensee procedures.

The inspectors reviewed CAP reports related to exposure significant radiological incidents that involved radiation monitoring instrument deficiencies since the last inspection in this area. Staff members were interviewed and CAP documents were reviewed to verify that follow-up activities were being conducted in an effective and timely manner commensurate with their importance to safety and risk based on the following:

- Initial problem identification, characterization, and tracking;
- Disposition of operability/reportability issues;
- Evaluation of safety significance/risk and priority for resolution;
- Identification of repetitive problems;
- Identification of contributing causes;
- Identification and implementation of effective corrective actions;
- Resolution of non-cited violations tracked in the CAP; and
- Implementation/consideration of risk-significant operational experience feedback.

The inspectors determined if the licensee's self-assessment activities were identifying and addressing repetitive deficiencies or significant individual deficiencies in problem identification and resolution. Documents reviewed during this inspection are listed in the Attachment to this report.

This radiation protection problem identification and resolution inspection constituted three samples as defined in IP 71121.03-5.

b. Findings

No findings of significance were identified.

.3 Radiation Protection Technician Instrument Use

a. Inspection Scope

The inspectors verified the calibration, expiration, and source response check currency on radiation detection instruments staged for use and observed radiation protection technicians for appropriate instrument selection and self-verification of instrument operability prior to use. Documents reviewed during this inspection are listed in the Attachment to this report.

This radiation protection technician instrument use inspection constituted one sample as defined in IP 71121.03-5.

b. Findings

No findings of significance were identified.

.4 SCBA Maintenance and User Training

a. Inspection Scope

The inspectors reviewed the status and surveillance records of SCBA staged and ready for use in the plant and inspected 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 determined if control room operators and other emergency response and radiation protection personnel were trained and qualified in the use of SCBAs, including personal bottle change-out. The inspectors verified that three individuals on each control room shift crew and three individuals from each designated

department were currently assigned emergency duties; for example, onsite search and rescue duties.

The inspectors verified that no onsite personnel perform maintenance on the vendor-designated vital components. Therefore, review of qualification documentation for at least 50 percent of the onsite personnel designated to perform maintenance on the vendor-designated vital components was not required. Additionally, the manufacturer conducted these repairs using manufacturer approved procedures. The inspectors reviewed the vital component maintenance records over the past five years for three SCBA units currently designated as "ready for service." The inspectors also ensured that the required, periodic air cylinder hydrostatic testing was documented and up to date, and that the Department of Transportation required retest air cylinder markings were in place for these three units. Documents reviewed during this inspection are listed in the Attachment to this report.

This SCBA maintenance and user training inspection constituted two samples as defined in IP 71121.03-5.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution (71152)

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

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As part of the various baseline IPs conducted during the period, the inspectors verified that the licensee entered the problems identified during the inspection into their CAP. Additionally, the inspectors verified that the licensee was identifying issues at an appropriate threshold and entering them in the CAP, and verified that problems included in the licensee's CAP were properly addressed for resolution. Attributes reviewed included: the complete and accurate identification of the problem; that timeliness was commensurate with the safety significance; that evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure they were considered an integral part of the inspections performed during the quarter and documented in Section One of this report.

b. Findings

No findings of significance were identified.

.2 Daily CAP Reviews

a. Inspection Scope

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

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

b. Findings

No findings of significance were identified.

.3 Selected Issue Follow-up Inspection: Review of Corrective Actions Associated with Previous VC and VE Chiller Compressor Failures

a. Introduction

The inspectors selected the licensee's corrective actions for a previous technical issue associated with the VC and VE chiller compressors for a more in-depth review in accordance with IP requirements. Specifically, the licensee experienced failures of safety-related VC/VE chiller compressors during December 2007. Licensee troubleshooting identified the compressor cylinder unloader feature which is designed to recycle some of the intake refrigerant to prevent overloading the cylinder during the compression phase was not properly opening. This in turn would overload the cylinder resulting in excessive cylinder head temperatures. Failure of a cotter pin in the unloader device was resulting in the dropping out (due to gravity) of the clevis pin which attached the unloading forks to the unloader mechanism. Once this occurred, the hydraulic signal to unload the cylinder would not lead to the unloader forks opening the suction valves to recycle a portion of the refrigerant during the compression stroke resulting in the overloaded conditions.

The licensee was unable to determine a failure mechanism for the cotter pins, but has re-oriented the clevis pin in such a way that a failure of the cotter pin would not result in gravity induced failure of the unloader device. The licensee has performed an extent of condition review of all affected cylinders on both safety-related and non safety-related compressors for clevis pin orientation and has changed the on-site dedication process, when a commercial grade compressor is received, to include verification of clevis pin orientation. The licensee also updated maintenance procedures to include the re-oriented means of installing the unloader device and plans a fall 2008 inspection of VE compressor internals to look for signs of cotter pin wear or failure. Lastly, the licensee performed an engineering evaluation to verify no potential risk to the compressor by the

foreign material generated following failure of the unloader cotter pin. Documents reviewed during this inspection are listed in the Attachment to this report.

The inspectors' review of this selected follow-up issue constituted one inspection sample as defined in IP 71152-05.

b. Effectiveness of Problem Identification and Resolution

(1) Inspection Scope

The inspectors reviewed plant logs, issue reports (IRs), apparent cause evaluations and work requests to verify that the licensee's identification and resolution of the VC/VE compressor failure issue was complete, accurate, and timely, and that the consideration of extent of condition review, generic implications, common cause, and previous occurrences was adequate.

(2) Findings and Issues

No findings of significance were identified. No issues were identified.

.4 Semi-Annual Trend Review

a. Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 40A2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the six month period of January 2008 through June 2008, 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 reworks maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy. Documents reviewed during this inspection are listed in the Attachment to this report.

This review constituted one semi-annual trend inspection sample as defined in IP 71152.

.b Findings

No findings of significance were identified.

4OA3 Event Follow-up (71153)

Cornerstone: Initiating Events

.1 Seismic Event

a. Inspection Scope

The Inspectors followed up on a seismic event in the early morning hours of April 9, 2008. Specifically, an earthquake took place approximately 250 miles south of the plant in West Salem, IL. The seismic event was not significant enough to result in an alarm on the station's seismic monitoring equipment; however, several plant personnel felt physical ground motion. Station personnel responded by performing walkdowns of various safety systems and accessible structures around the plant, switchyard, and cooling lake looking for any signs of damage and verifying the integrity of the structures.

The inspectors evaluated the licensee's actions and independently performed walkdowns of the different safety-related systems throughout the plant. In addition, the inspectors confirmed that the licensee was not required to report the event under 10 CFR 50.72. However, the licensee made a voluntary notification to the NRC operations center.

The inspectors' response to and review of this seismic event constituted one inspection sample as defined in IP 71153.

.2 Unit 2 Main Steam Line (MSL) Drain Valve Steam Leak

a. Inspection Scope

On June 6, 2008, the inspectors followed up on the licensee's response to a steam leak inside the Unit 2 outboard Main Steam Isolation Valve (MSIV) room. Specifically, 2B21-F019, which is the MSL drain valve, developed a packing leak that was causing steam to be released from the MSL drain line to the outboard MSIV room. The licensee initially attempted to tighten the packing of the valve. When this effort was unsuccessful, the licensee obtained a technical assessment from GE and in turn closed the MSL drain valve, isolating the primary containment penetration. This issue was documented in the CAP as IR 274077.

In response to this event, the inspectors observed the performance of licensee actions, and independently verified the stability of plant parameters and status. In addition, the inspectors ensured the licensee was following As-Low-As-Reasonably-Achievable (ALARA) practices during the initial attempts to repair the packing, that ASME code requirements were followed, and separately confirmed the licensee's conclusion that the event did not require reporting under 10 CFR 50.72. Documents reviewed during this inspection are listed in the Attachment to this report.

The inspectors' response to and review of this event constituted one inspection sample as defined in IP 71153.

b. Findings

No findings of significance were identified.

4OA5 Other

Cornerstone: Physical Protection

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure that the activities were consistent with licensee security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to the Site Vice President, Mr. Daniel Enright, and other members of licensee management on July 2, 2008. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary and none were identified.

.2 Interim Exit Meetings

An interim exit was conducted for IP 71121.03, concerning the results of Radiation Monitoring Instrumentation and Protective Equipment with the Shift Operation Superintendent, Mr. H. Vinyard, on May 22, 2008. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

D. Enright, Site Vice President
D. Rhoades, Plant Manager
J. Bashor, Site Engineering Director
L. Blunk, Operations Training Manager
S. Wilkinson, Chemistry Manager
H. Do, Corporate Inservice Inspection Manager
B. Ginter, Engineering Programs Manager
F. Gogliotti, System Engineering Senior Manager
W. Hilton, Engineering Supervisor – Mechanical/Structural
K. Ihnen, Nuclear Oversight Manager
A. Kochis, Inservice Inspection Engineer
R. Leasure, Radiation Protection Manager
S. Marik, Operations Director
J. Miller, NDE Level III
B. Rash, Maintenance Director
J. Rommel, Design Engineering Senior Manager
K. Rusley, Emergency Preparedness Manager
J. Shields, Inservice Inspection Program Supervisor
T. Simpkin, Regulatory Assurance Manager
H. Vinyard, Shift Operations Superintendent
J. White, Site Training Director
C. Wilson, Station Security Manager

Nuclear Regulatory Commission

K. Riemer, Chief, Reactor Projects Branch 2

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None.

Closed

None.

Discussed

None.

LIST OF DOCUMENTS REVIEWED

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

1R01 Adverse Weather Protection

CALCULATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
L-002536	Probable Maximum Precipitation Basin Area B1 Water Level Evaluation	1
WR-LS-PF-9	Probable Maximum Flood in Illinois River	0
WR-LS-PF-7	Wind Wave Analysis	0

CAP DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
214700	Switchyard Voltage at LaSalle	04/13/04
478458	Raising VARS and LOP-AP-43 not Performed in LOA-GRID-001	04/13/06
598432	LOA-GRID-001	03/02/07
624096	Prep LOA-GRID-001 Lineup for Summer Readiness	05/01/07
633497	NOS ID: 2007 Summer Readiness Preparation Deficiencies	05/24/07
689101	LOA-GRID-001 Enhancement Needed to Clarify Tables	10/24/07
778062	Vibration Levels Remain Elevated on 1VT01CC	05/23/08
778810	Training: LOA-GRID-001 and Common Service Water Pump	05/28/08
781055	Outside Area Plant Walkdown Concerns [NRC Identified]	05/30/08

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
Letter dated May 15, 2008	Certification of 2008 Summer Readiness	05/15/08

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
LOA-TORN-001	Operating Abnormal Procedure High Winds/ Tornado	7
LOS-ZZ-A2	Preparation for Winter/Summer Operation	34
OP-AA-108-	Station Response to Grid Capacity Conditions	2

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
107-1001		
WC-AA-107	Seasonal Readiness	5
LOA-GRID-001	Low Grid Voltage	7
LOP-AP-43	Emergency Load Conservation	1
LOA-DIKE-001	Lake Dike Damage Failure	8
LOP-WL-04	Lake Level and Blowdown Flow Control	26
LOA-FLD-001	Flooding	10

1R04 Equipment Alignment

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
786762	U2 in DW Inlet Pressure Low Alarm	06/16/08
786812	2A in Compressor Unreliable for a 7-Day Run	06/16/08

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
M-147	P&ID RCIC	BE
M-95	P&ID HPCS	AM
M-101	P&ID RCIC System	AN
M-100	P&ID Control Rod Drive Hydraulic Piping	AC

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
LOP-RI-02M	Unit 2 RCIC System Mechanical Checklist	19
LOP-RI-02E	Unit 2 RCIC System Electrical Checklist	14
LOP-DG-02M	Unit 1 HPCS DG Mechanical Checklist	9
LOP-DG-02E	Unit 1 1B DG Electrical Checklist	9
LOP-IN-02E	Unit 2 DW Pneumatic System Electrical Checklist	5
LOP-IN-02M	Unit 2 DW Pneumatic System Mechanical Checklist	18
LOP-HP-01M	Unit 1 HPCS Mechanical Checklist	16
LOP-HP-01E	Unit 1 HPCS Electrical Checklist	10
LOP-RD-01M	Unit 1 CRD Mechanical Checklist	19
LOP-RD-01E	Unit 1 CRD Electrical Checklist	3
LOP-RD-02M	Unit 2 CRD Mechanical Checklist	16
LOP-RD-02E	Unit 2 CRD Electrical Checklist	6

1R05 Fire Protection

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
Fire Drill Scenario No. 69	Hydrogen Leak 735 TB	07/13/00
	UFSAR	17
	LaSalle County Station Fire Protection Report	1

1R06 Flooding

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
M-63	P&ID Circulating Water System	AQ

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
Section 3.4.1	UFSAR Water Level (Flood) Design	13
	LaSalle Probabilistic Risk Assessment 2006C Results	0
	Individual Plant Examination and Individual Plant Examination (External Events)	04/28/84

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
LTS-1000-29	Water Tight Door and Penetration Inspection	11
LOA-FLD-001	Flooding	10
LOA-AP-101	Unit 1 AC Power System Abnormal	29

WORK DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
WO 934532-01	Watertight Door and Penetration Inspection, Unit 1	02/08/08
WO 835674-01	Watertight Door and Penetration Inspection, Unit 2	02/23/07

1R07 Annual Heat Sink Performance

CALCULATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
EC 367805	Evaluation of the Standby DG Heat Exchanger (0, 1 & 2DG01A) Inspection Frequency for GL 89-13 Program	0

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
728710	Ineffective VY Cooler Cleanings for 2VY01A, 1VY01A, 1VY03A, and 2VY03A	01/29/08
597664	2A DG Heat Exchanger Coating Failure	03/01/07
763320	South Endbell Cover and Channel Showing Signs of Wear	04/15/08

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	Generic Letter 89-13 Program Basis Document	4

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
ER-AA-340-1002	Service Water Heat Exchanger and Component Inspection Guide	3
ER-AA-340-1002; Att. 1	HX/Component Data Sheet	0

1R11 Licensed Operator Requalification Program

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	Generic Letter 89-13 Program Basis Document Licensee Training Simulator Scenario	4

1R12 Maintenance Effectiveness

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
741775	Control Rod 42-55 Indicated Drive Flow when Selected	02/27/08
496454	Rod 06-23 Double Notched from Position 18 to 22	06/04/06
740133	DCV Failed for CRD 38-03	02/23/08
741774	CRD 42-55 Apparent Stuck DCV (123)	02/27/08
493996	2C11-D1047-123 Leaks from Area Under Flow Control Cover	05/26/06
785900	1A RR FCV RVDT Failure	06/12/08
780363	2B RR FCV Drifting Closed with HPU Locked Up & Pump Secured	05/29/08
594776	RR Bi-Stable Flow Caused High Reactor Power PPC Alarm	02/22/08
650029	RR Subloop B1 HPU Pump Failed Causing Lead Pump Swap	07/14/07
666530	HPU B2 Low Pressure Alarm During Swap	08/30/07
602733	2B33-F340B Goes Closed Approx 10 Minutes After Opening	03/12/07
602153	B RR Inboard Valves did not Open	03/11/07
455419	1B RR Servo Error Oscillations w/ Change in LVDT Indication	02/17/07
469944	1A RR Seal Cavity 2 Pressure on Downward Trend	03/23/06
494567	U2 B RR HPU Subloop 1 Accumulator has Blown Bladder	05/29/06
500609	While Swapping Subloops Servo Error Pegged Left	06/16/06
541000	B RR Subloop 2 Servo Oscillations	10/06/06
562340	1B Cavity 2 Seal Pressure Degrading Trend	11/27/06
574397	1B RR HPU Subloop 1 Servo Error and LVDT Position Change	01/02/07
647123	1B RR Subloop 2 Failure to Position 1B RR FCV	07/04/07
649919	1B RR Subloop B1 Breaker Tripped on Magnetics	07/13/07
685411	2B RR FCV Servo Error and Valve Position Oscillations	10/16/07
686592	2A LFMG Set Output Voltage Low	10/18/07
713442	B RR FCV Movement While on B1 Subloop	12/19/07
750749	1B RR Seal Cavity 2 Pressure Degradation	03/17/08
752301	RR HPU Subloop 1A1 Pump Issues	03/20/08
761886	1A RR RVDT Error	04/11/08
787005	Documentation of MR Expert Panel Findings and Issues	06/16/08
777444	No PMT for 0VE04YA Hydromotor Replacement	05/20/08
775209	Wire Loose from Lug for Div. III DC	06/12/08
775338	2B DG Engine Trip Alarm Up (2H13-P601 A101) w/ Lockout Reset	05/14/08
769736	The 2A DG Room Exhaust Damper 2VD11YA/B did not Open as Expected	04/30/08

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
ER-AA-310-1001	Maintenance Rule Scoping	3
ER-AA-310-1004	Maintenance Rule – Performance Monitoring	7
LS-AA-125-1003	Equipment Apparent Cause Evaluation Report	7
	CRD System Performance Monitoring Review	05/2008
	RR System Performance Monitoring Review	05/2008

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
WC-AA-107	Seasonal Readiness	5

WORK DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
00991403-01	Replace Hydromotor for 2VD11YA/YB	02/19/08

1R13 Maintenance Risk Assessments and Emergent Work Control

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
787905	Critical Spare for 2A Rad Monitor was not On-site	06/19/08
787901	Troubleshooting Results for 2A FC Rad Monitor	06/19/08
787805	2D18-K615A Rad Monitor Spiked	06/18/08

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	Protected Equipment List for Unit 2 Division I Work Window	
	Protected Equipment List for Division III Work Window	
	Protected Equipment List for 345 KV Bus 1 Work Outage	
	Protected Equipment List for Unit 2 MDRFP Work Window	
	Protected Equipment List for Unit 1 Standby Gas Treatment Work Window	
	Protected Equipment List for Unit 1 RCIC Work Window	

1R15 Operability Evaluations

CALCULATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
EC 354533	DW Floor Drain Flow Monitoring Instrumentation	0
EC 368993	Evaluate Service Life of EQ Components Associated with 2B21-F032A	0
EC364755	Impact of ULSD on the EDG and Fuel Oil Storage System	3

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
788645	DW Floor Drain's Sump Fill-Up Rate Monitor Inoperable	06/20/08
787493	1UR-RF002 Fill Up Rate Spike	06/18/08
789083	Excess DW Floor Drain System Fill-Up Rate, TS 3.4.7 Entry	06/22/08
772872	DW Floor Drain System Fill-Up Instrument Inaccurate – Need Contingency WO	05/07/08
681650	Valve 2B21-F032A not Torqued to Correct Value	10/08/07
669380	Steam Leak from 2B21-F032A Packing Gland Area	09/09/07
670129	Steam Leak Off Plug from 2B21-F032A Packing Gland Area	09/11/07
779413	Water Leaking from Outboard MSIV Room Into Reactor Building	05/26/08
631063	Evaluation Required for FW Flow Mismatch	05/18/07
614099	2B21-F032A Valve Indication and Header Flow	04/06/07
606276	2B21-F032A Indicating Partially Closed w/ Unit at Full Power	03/20/07
613539	Replacement Valve Disc Weighs More than Original	04/05/07
605390	60 DPM Leak from 2B21-F032A	03/17/07
603193	Repairs to 2B21-F032A	03/13/07
598826	2B21-F032A as Found LLRT Exceeded Admin Alarm Limit	03/03/07
307589	2B21-F032A Repair After Unacceptable LLRT Result	03/02/05
309180	L2R10 LL: 2B21-F032A FW PCIS Valve	03/06/05
772508	0VS118Y 'TSC Minimum Outside Air Damper' Failed Open	05/06/08
768881	2E12-F064C Valve Went Closed	04/28/08
775739	2B DG Storage Tank Level Low Alarm	05/14/08

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
M-118	P&ID FW and Zinc	I
M-1347	P&ID TSC HVAC System VS-4	F
1E-2-4220AM	Schematic Diagram RHR System "RH" (E12) Part 12	V
1E-2-4220CA	Schematic Diagram RHR System "RH" (E12) Part 49	R
1E-2-4220AK	Schematic Diagram RHR System "RH" (E12) Part 10	R

OPERABILITY EVALUATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
OE 07-002	Effects of ULSD on LaSalle EDGs	5
OE 07-002	Effects of ULSD on LaSalle EDGs	4
OE 07-002	Effects of ULSD on LaSalle EDGs	2

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
LOS-AA-S101	Unit 1 Shiftly Surveillance	47
LMP-TC-01	Anchor Darling 12 Inch 900 Pound Testable Check Valve Maintenance	11
LOS-VS-M1	TSC Emergency Makeup Unit Operability Test	12
EP-AA-121	Emergency Response Facilities and Equipment Readiness	6
LOP-DO-01	Receiving and Sampling New Diesel Fuel Oil	28

WORK DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
WO 1129774-02	2E12-F064C Valve Went Closed, Replace Relay 2E12A-K104	04/29/08

1R18 Plant Modifications

CALCULATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
EC 365955	Provide Monitoring of B VE Compressor	4

WORK DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
WO 1030484-07	EM Install Temp Cables in Existing Opening by Door 130	05/21/07
WO 1030484-04	OAC Install TCCP to Monitor B VE Compressor in the MCR	05/19/07
WO 1030484-08	EM Install Conduit, Core Drill, Grout in Conduit by Door 335	05/21/07

1R19 PM Testing

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
778670	Time Clock Work Exceeded Scheduled Duration	05/22/08
778683	LOS-VG-M1 Changes Needed to Address PMT Testing	05/22/08

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
M-71	P & ID Fire Protection	AY
1E-1-4074AC	Schematic Diagram SBGT 'VG' Part 3	W
M-89	P&ID SBGT	AF

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
LOS-RH-Q1	RHR (LPCI) and RHR Service Water Pump and Valve Inservice Test for Modes 1, 2, 3, 4 and 5	67
LOS-FP-SR1	Diesel Fire Pump Flow Test	0
LOS-DG-M3	2B DG Operability Test	68
LOS-FP-M6	Diesel Fire Pump Operational Check	9
LOS-VG-M1	SBGT System Operability Test and Inservice Test of 1(2)VG001 and 1(2)VG003	35

WORK DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
01123807-01	2B DG Fast Start Attachment 2B-Fast	05/12/08

1R22 Surveillance Testing

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
440584	HPCS Water Leg Pump Discharge Pressure Below Required Amount	01/10/06
453719	U-1 HPCS Pump D/p is Low	02/14/06
485345	LOS-HP-Q1 Acceptance Criteria not Rigorously Established	04/28/06
520132	HPCS PP D/P in Alert Range on Quarterly Surveillance	08/15/06
771879	High MSL Tunnel Temperature During LOS-CS-Q1 on U2	05/05/08

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
LOS-HP-Q1	HPCS System Inservice Test	58
LOS-CS-Q1	Secondary Containment Damper Operability Test	31
LGA-002	Secondary Containment Control	4
LOS-DG-M2	1A(2A) DG Operability Test	72
LOP-NR-06	TIP Operation	26
LOS-RD-SR7	Channel Interference Monitoring	14
LTP-1600-7	Data Collection and Evaluation for LPRM Calibration	23

1EP6 Drill Evaluation

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	2008 LaSalle 2 nd Quarter PI Drill	

2OS3 Radiation Monitoring Instrumentation and Protective Equipment

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
AR 558954	Enhancement IR for Shepherd Model 89 Irradiators	11/16/06
AR 581814	Issues Identified During Air sample Reviews	1/22/07
AR 589462	Alert and Hi Alarm Setpoints Found Swapped	2/9/07
AR 602275	Safety Concern Bubble Hood Air Was Inadvertently Turned Off	3/11/07
AR 616548	SCBA Issues During Fire Drill	4/12/07
AR 631178	Required Spectacle Kits for SCBA Missing	5/17/07
AR 665792	SCBA Cascade Does Not Maintain Pressure	8/29/07
AR 676203	SCBA Compressor Inoperable	9/26/07
AR 745890	Radiation Protection Equipment FASA	3/6/08
AR 749224	Maintenance Needed on SCBA Compressor	3/13/08
AR 764477	Nuclear Oversight Identifies Masks Are Not Inspected In Accordance With RP-AA-825	2/22/08
AR 772636	SCBA Pack Tagged Out of Service	5/6/08
AR 774420	Electronic Dosimeter Malfunction	5/12/08
Cert. No. 10478075	Eberline AMS-4 No. 076437 Powerlabs Calibration Certificate	1/4/08
	Thermo Electron Electronic Personal Dosimeter Mark 2 No. 27819 Exelon Zion Station Calibration Certificate	12/3/07
FASA	Zion's Electronic Calibration Check Program	6/1/07
AT 5105225	Radiation Monitoring Instrumentation – PowerLabs	7/21/06

WORK DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
WO 766866	Main Control Room Radiation Monitor Channel A Channel	8/25/06
WO 769858	LIP-AR-903 Common Area Radiation Monitor Calibration	12/14/06
WO 819458	LIP-AR-501A Area Radiation Monitor Calibration	2/14/07
WO 810637	LIP-AR-601A Area Radiation Monitor Calibration	3/21/07
WO 891062	LIS-AR-205A Unit 2 Main Control Room Radiation Monitor Channel A Channel	7/21/07

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
LRP-5410-4	Operation of the Canberra/RMC-Fastscan	8
LRP-5822-7	Surveillance and Operating Guidelines For The IPM Contamination Monitor	13
RP-LA-825-1003	Maintenance Care and Inspection of the ISI Magnum SCBA	6
Cert. No. 10464755	Eberline AMS-4 No. 076438 Powerlabs Calibration Certificate	8/30/07

4OA2 Problem Identification and Resolution

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
729785	VX Switchgear System Common Cause Failure Analysis Needed	01/31/08
737327	1E12-F025C Failed As-Found Set Pressure	02/17/08
742570	CRD 58-35 has No '4' Positions	02/29/08
754851	CCA – ERO DEP Failures	03/26/08
764450	Reactivity Management Performance Indicator Adverse Trend	04/17/08
780738	Main Gen Rectifier Bank #4 has Water Leak	05/29/08
708407	B VC/VE Observations	12/06/07
763160	Request WO for Inspection of 0VE04CB Compressor Cotter Pins	04/14/08
722019	NRC Concern – Potential Part 21 Implications Re VC/VE Equipment	01/14/08
683328	A VC Refrigeration Compressor Inoperable Due top Short Circuit	10/11/07
709086	0B VE Compressor Failed to Restart Following Pumpdown	12/08/07
788756	Bearing Related Vibration Continues to Trend Upward	06/20/08

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
M-1443	P&ID Control Room Air Conditioning System	T
M-1443	P&ID Auxiliary Electrical Equipment Room Air conditioning System	Q
M-1470	P&ID Auxiliary Electrical and Control Room HVAC System	H

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
MA-LA-724-001	Carrier Model 5F & 5H Open Drive Compressor Maintenance/Overhaul	3

40A3 Event Follow-up

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
783710	2B21-F019 Valve Packing is Leaking	06/06/08
783048	U-2 VR Exhaust Plenum Radiation Indication Trending Up	06/04/08
765009	Results of Post-Earthquake Walkdown by Engineering	04/18/08
765019	LOA-EM-001 Entry	04/18/08
764737	Minor Ground Motion Felt due to Earthquake in West Salem, IL	04/18/08

DRAWINGS

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
M-116	P & ID Unit 2 MSL; Sheet 7	AA
P012-42144-N01	3" Pressure Seal Gate Valve (Forged)	A

MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	Control Room logs for 6/6/2008	06/06/08

4OA5 Other

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date</u>
775054	NRC Identified: 2 Drop/Minute Packing Leak on 2E51-F052	05/13/08
790257	Security – Early Warning Zone’s Failed Test	06/25/08

PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
SY-AA-101-122	Testing Security Equipment	14

LIST OF ACRONYMS USED

AC	Alternating Current
ALARA	As-Low-As-Reasonably-Achievable
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CEDE	Committed Effective Dose Equivalent
CFR	Code of Federal Regulations
CRD	Control Rod Drive
DG	Diesel Generator
DW	Drywell
EDG	Emergency Diesel Generator
FW	Feedwater
HPCS	High Pressure Core Spray
IP	Inspection Procedure
IR	Issue Report
KV	Kilo-volts
LER	Licensee Event Report
LPRM	Local Power Range Monitor
LVDT	Linear Variable Differential Transformer
MDRFP	Motor Driven Reactor Feed Pump
mrem	Millirem
MSIV	Main Steam Isolation Valve
MSL	Main Steam Line
NRC	U.S. Nuclear Regulatory Commission
PM	Post-Maintenance
PMP	Probable Maximum Precipitation
PPC	Plant Process Computer
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
SBGT	Standby Gas Treatment
SCBA	Self-Contained Breathing Apparatus
SSC	Structures, Systems, and Components
TIP	Traversing Incore Probe
TS	Technical Specification
TSC	Technical Support Center
UFSAR	Updated Final Safety Analysis Report
ULSD	Ultra Low Sulfur Diesel Fuel Oil
VC	Main Control Room Ventilation
VD	Diesel Generator Building Ventilation
VE	Auxiliary Electrical Equipment Room Ventilation
WO	Work Order