

January 25, 2006

Mr. Christopher M. Crane
President and Chief Nuclear Officer
Exelon Nuclear
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2
NRC INTEGRATED INSPECTION REPORT 05000373/2005005;
05000374/2005005

Dear Mr. Crane:

On December 31, 2005, 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 January 5, 2006, with the Site Vice President, Ms. Susan Landahl, 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, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures 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). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Bruce L. Burgess, Chief
Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000373/2005005; 05000374/2005005
w/Attachment: Supplemental Information

cc w/encl: Site Vice President - LaSalle County Station
LaSalle County Station Plant Manager
Regulatory Assurance Manager - LaSalle County Station
Chief Operating Officer
Senior Vice President - Nuclear Services
Senior Vice President - Mid-West Regional
Operating Group
Vice President - Mid-West Operations Support
Vice President - Licensing and Regulatory Affairs
Director Licensing - Mid-West Regional
Operating Group
Manager Licensing - Clinton and LaSalle
Senior Counsel, Nuclear, Mid-West Regional
Operating Group
Document Control Desk - Licensing
Assistant Attorney General
Illinois Emergency Management Agency
State Liaison Officer
Chairman, Illinois Commerce Commission

C. Crane

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 05000373; 05000374

License Nos: NPF-11; NPF-18

Report No: 05000373/2005005; 05000374/2005005

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: Marseilles, IL 61341

Dates: October 1 through December 31, 2005

Inspectors: D. Kimble, Senior Resident Inspector
D. Eskins, Resident Inspector
D. McNeil, Senior Operator Licensing Examiner
M. Mitchell, Radiation Protection Inspector
T. Ploski, Senior Emergency Preparedness Inspector
N. Valos, Operator Licensing Examiner
J. Yesinowski, Illinois Dept. of Emergency Management

Observers: J. Tapp, Inspector-In-Training

Approved by: Bruce L. Burgess, Chief
Branch 2
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000373/2005005, 05000374/2005005; 10/01/2005 - 12/31/2005; LaSalle County Station, Units 1 and 2; Quarterly Integrated Inspection Report.

The inspection was conducted by resident inspectors and region based inspectors. The report covers a 3-month period of routine baseline inspection, as well as an announced biennial inspection of the licensed operator requalification program. No findings of significance were identified in any cornerstones. 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-Revealing 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 began the inspection period operating at full power. On October 21, 2005, power was reduced to approximately 12 percent to permit entry into the primary containment for oil addition to the 'A' and 'B' Reactor Recirculation (RR) pumps. The unit returned to operation at full power on October 23, 2005. On October 27, 2005, power was reduced to approximately 75 percent to permit a control rod sequence exchange and control rod surveillance testing. The unit returned to full power later that day. On December 10, 2005, power was again reduced to approximately 75 percent to permit a control rod sequence exchange and control rod surveillance testing. The unit returned to full power on December 11, 2005, and remained operating at or near full power for the remainder of the inspection period.

Unit 2 began the inspection period operating at full power. On December 18, 2005, power was reduced to approximately 75 percent to permit a control rod sequence exchange and control rod surveillance testing. Full power operation was resumed later that day, and the unit continued to operate at or near full power for the remainder of the inspection period.

1. REACTOR SAFETY

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

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors conducted a review of the licensee's preparations for winter conditions to verify that the plant's design features and implementation of procedures were sufficient to protect mitigating systems from the effects of adverse weather. Documentation for selected risk-significant systems was reviewed to ensure that these systems would remain functional when challenged by inclement weather. Cold weather protection, such as heat tracing and area heaters, was verified to be in operation where applicable. The following systems or plant areas were selected for detailed reviews by the inspectors due to their risk significance or susceptibility to cold weather issues:

- Lake screen house;
- Unit 1 Emergency Diesel Generator (EDG) ventilation system; and
- Unit 2 EDG ventilation system.

The inspectors' review of winter weather preparations constituted a single inspection sample.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

The inspectors performed a partial walkdown of the following equipment train to verify operability and proper equipment lineup. This system was selected based upon risk significance, plant configuration, and ongoing system work and testing:

- Unit 2 Division 2 Emergency Core Cooling Systems (ECCS) during work on Division 1 ECCS.

The inspectors verified the position of critical redundant equipment and looked for any discrepancies between the existing equipment lineup and the required lineup.

This review constituted one inspection sample.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors walked down the following risk significant areas looking for any fire protection issues. The inspectors selected the following areas containing systems, structures, or components that the licensee identified as important to reactor safety:

- Fire zone 2D, Unit 1 reactor building, elevation 786'6";
- Fire zone 2E, Unit 1 reactor building, elevation 761'0";
- Fire zone 2F, Unit 1 reactor building, elevation 740'0";
- Fire zone 2G, Unit 1 reactor building, elevation 710'6";
- Fire zone 2H4, Unit 1 Reactor Core Isolation Cooling cubicle (RCIC), elevation 694'6";
- Fire zone 2I2, Unit 1 High Pressure Core Spray (HPCS) cubicle elevation 673'4";
- Fire zone 2I4, Unit 1 Low Pressure Core Spray (LPCS)/RCIC cubicle, elevation 673'4";
- Fire zone 3D, Unit 2 reactor building, elevation 786'6";
- Fire zone 3E, Unit 2 reactor building, elevation 761'0";
- Fire zone 3H4, Unit 2 RCIC/LPCS cubicle, elevation 694'6";
- Fire zone 3I1, Unit 2 reactor building, elevation 673'4";
- Fire zone 3I4, Unit 2 LPCS/RCIC cubicle, elevation 673'4";
- Fire zone 4E2, Unit 2 auxiliary equipment room, elevation 731'0";
- Fire zone 4E4, Unit 2 Division 2 essential switchgear room, elevation 731'0"; and
- Fire zone 5E1, Unit 2 condensate pump aisle, elevation 663'0".

The inspectors reviewed the control of transient combustibles and ignition sources, fire detection equipment, manual suppression capabilities, passive suppression capabilities

and automatic suppression capabilities, barriers to fire propagation, and any contingency fire watches that were in effect.

These reviews constituted fifteen inspection samples.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

.1 Semiannual Internal Flooding Review

a. Inspection Scope

The inspectors reviewed the licensee's flooding mitigation plans and equipment to determine consistency with design requirements and the risk analysis assumptions related to internal flooding. The following specific plant areas particularly susceptible to internal flooding were inspected:

- Unit 1 cooling lake screenhouse; and
- Unit 2 cooling lake screenhouse.

Walkdowns and reviews performed considered design measures, seals, drain systems, contingency equipment condition and availability of temporary equipment and barriers, performance and surveillance tests, procedural adequacy, and compensatory measures.

This semiannual internal flooding review constituted a single inspection sample.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Facility Operating History

a. Inspection Scope

The inspectors reviewed the plant's operating history from October 2003 through October 2005, to assess whether the Licensed Operator Requalification Training (LORT) program had addressed operator performance deficiencies noted at the plant. Additionally, the inspectors also reviewed all inspection report findings for the subject period.

This item, along with the inspection elements documented in Sections 1R11.2 through 1R11.9 below, represented a single inspection sample.

b. Findings

No findings of significance were identified.

.2 Licensee Requalification Examinations

a. Inspection Scope

The inspectors performed a biennial inspection of the licensee's LORT test/examination program. The operating examination material reviewed consisted of five operating tests, each containing approximately four dynamic simulator scenarios and six job performance measures (JPMs). The written examinations reviewed consisted of 5 written examinations, each containing approximately 35 questions. The inspectors reviewed the annual requalification operating test and biennial written examination material to evaluate general quality, construction, and difficulty level. The inspectors assessed the level of examination material duplication from week-to-week during the current year operating test, and compared the operating test material from this year's operating tests (2005) with last year's operating tests (2004). The annual operating tests were conducted in August/September 2004 and August/September/October 2005. The examiners assessed the amount of written examination material duplication from week-to-week for the written examination administered in June/July 2005. The inspectors reviewed the methodology for developing the examinations, including the LORT program 2-year sample plan, probabilistic risk assessment insights, previously identified operator performance deficiencies, and plant modifications. The inspectors also interviewed members of the licensee's management, operations and training staff, and discussed various aspects of the examination development.

b. Findings

No findings of significance were identified.

.3 Licensee Administration of Requalification Examinations

a. Inspection Scope

The inspectors observed the administration of a requalification program operating test to assess the licensee's effectiveness in conducting the test. The inspectors assessed the facility evaluators' ability to determine adequate crew and individual performance using objective, measurable standards. The inspectors evaluated the performance of one shift crew in parallel with the facility evaluators during four dynamic simulator scenarios and evaluated various licensed crew members concurrently with facility evaluators during the administration of several JPMs. The inspectors observed the training staff personnel administer the operating test, including conducting pre-examination briefings, evaluations of operator performance, and individual and crew evaluations upon completion of the operating test. The inspectors evaluated the ability of the simulator to support the examinations. A specific evaluation of simulator performance was conducted and documented under Section 1R11.9 of this report.

b. Findings

No findings of significance were identified.

.4 Examination Security

a. Inspection Scope

The inspectors observed and reviewed the licensee's overall licensed operator requalification examination security program related to examination physical security (e.g., access restrictions and simulator considerations) and integrity (e.g., predictability and bias). The inspectors also reviewed the facility licensee's examination security procedure, any corrective actions related to past or present examination security problems at the facility, and the implementation of security and integrity measures (e.g., security agreements, sampling criteria, bank use, and test item repetition) throughout the examination process.

b. Findings

No findings of significance were identified.

.5 Licensee Training Feedback System

a. Inspection Scope

The inspectors assessed the methods and effectiveness of the licensee's processes for revising and maintaining its LORT program up to date, including the use of feedback from plant events and industry experience information. The inspectors interviewed licensee personnel (operators, instructors, and management) and reviewed applicable procedures. In addition, the inspectors reviewed the licensee's quality assurance oversight activities, including the most recent licensee training department self-assessment report. The inspectors evaluated the licensee's ability to assess the effectiveness of its LORT program and their ability to implement appropriate corrective actions.

b. Findings

No findings of significance were identified.

.6 Licensee Remedial Training Program

a. Inspection Scope

The inspectors assessed the adequacy and effectiveness of remedial training conducted since the previous biennial requalification examinations and the training planned for the current examination cycle to ensure that they addressed weaknesses in licensed operator or crew performance identified during training and plant operations. The inspectors reviewed remedial training procedures and individual remedial training plans.

b. Findings

No findings of significance were identified.

.7 Conformance With Operator License Conditions

a. Inspection Scope

The inspectors reviewed the facility and individual operator licensees' conformance with the requirements of 10 CFR 55. The inspectors reviewed the facility licensee's program for maintaining active operator licenses and to assess compliance with 10 CFR 55.53(e) and (f). The inspectors reviewed the procedural guidance and the process for tracking on-shift hours for licensed operators and which control room positions were granted watch-standing credit for maintaining active operator licenses. The inspectors reviewed the facility licensee's LORT program to assess compliance with the requalification program requirements as described by 10 CFR 55.59(c). Additionally, medical records for 15 licensed operators were reviewed for compliance with 10 CFR 55.53(l).

b. Findings

No findings of significance were identified. Two Unresolved Items (URIs) were identified by the inspectors.

Credit for More Operators than Described by the Minimum Staffing Specified in 10 CFR 50.54(m) for Watch Standing Proficiency

In accordance with 10 CFR 55.53(e), to maintain active license status a licensed operator shall actively perform the functions of an operator or senior operator on a minimum of seven 8-hour or five 12-hour shifts per calendar quarter. Per the 10 CFR 55.4 definition, actively performing the functions of an operator or senior operator means that an individual has a position on the shift crew that requires the individual to be licensed as defined in the facility's Technical Specifications, and that the individual carries out and is responsible for the duties covered by that position.

LaSalle County Station's Technical Specifications state that they may go below the minimum control room staffing requirements of 10 CFR 50.54(m) for a period of no longer than 2 hours which indicated a commitment to the minimum staffing requirements. The minimum staffing requirements in 10 CFR 50.54(m) for a single control room for two units is two senior reactor operators (SROs) and three reactor operators (ROs). The licensee routinely staffs the control room with three SROs and four ROs. Technical Specification 5.1.2 further indicates that it is not necessary to have two unit supervisors in the control room. The ROs are rotated through the nuclear station operator position and the nuclear station operator assist watch stations, but the unit supervisors do not switch units for watch standing purposes on a routine basis.

There is no safety consequence that the licensee staffs the control room with greater than the minimum number of license operators allowed by Technical Specifications. However, there is a regulatory issue as to how many operators can get credit for standing concurrent watches in the control room. If the licensee staffs the control room with more

than the minimum number of operators without administrative controls to rotate the operators into the required Technical Specification control room watch stations, then inspectors cannot verify that all the operators stood the necessary shifts to meet the requirements to maintain an active license as defined by 10 CFR 55.4.

The question as to whether the licensee can take credit for more operators than described by the minimum staffing specified in 10 CFR 50.54(m) for watch standing proficiency is an unresolved item requiring additional review by the NRC. (URI 05000373/2005005-01; 05000374/2005005-01)

Two Partial Shifts Added Together to Meet the Requirement for a Shift Specified in 10 CFR 55.53(e) for License Re-activation

In accordance with 10 CFR 55.53(f), to re-activate an inactive limited senior reactor operator (LSRO) license, the licensed operator shall actively perform the functions of a LSRO for one shift. The station's procedures state that a LSRO must stand one 8-hour shift to reactivate their license. A LSRO was recently re-activated by standing two shifts, one shift of 6.25 hours and a second shift the following day of 1.75 hours. The two partial shifts were added together to obtain one 8-hour shift.

There is no safety consequence to adding two partial shifts together under these given conditions, and in fact, this method allowed more observed time under instruction for the LSRO on the fuel handling bridge than would be available had the LSRO stood a single 8-hour shift. However, there is a regulatory issue indicating the LSRO should have stood a complete shift without truncation.

The question as to whether the licensee can add two partial shifts together to meet the requirement for a shift specified in 10 CFR 55.53(e) for license re-activation is an unresolved item until further review by the NRC. (URI 05000373/2005005-02; 05000374/2005005-02)

.8 Annual Operating Test Results

a. Inspection Scope

The inspectors reviewed the overall pass/fail results of the annual operating examination which consisted of Job Performance Measure (JPM) and simulator operating tests (required per 10 CFR 55.59(a)(2)) administered by the licensee. The operating tests were conducted in October and November 2005. The inspectors reviewed the overall pass/fail results for the biennial written examination (required per 10 CFR 55.59(a)(2)) administered by the licensee. The written tests were administered in October and November 2005. The overall results were compared with the significance determination process in accordance with NRC Manual Chapter 0609I, "Operator Requalification Human Performance Significance Determination Process (SDP)."

b. Findings

No findings of significance were identified.

.9 Conformance With Simulator Requirements Specified in 10 CFR 55.46

a. Inspection Scope

The inspectors assessed the adequacy of the licensee's simulation facility (simulator) for use in operator licensing examinations and for satisfying experience requirements as prescribed in 10 CFR 55.46, "Simulation Facilities." The inspectors also reviewed a sample of simulator performance test records (i.e., transient tests, scenario test and discrepancy resolution validation test), simulator discrepancy and modification records, and the process for ensuring continued assurance of simulator fidelity in accordance with 10 CFR 55.46. The inspectors reviewed and evaluated the discrepancy process to ensure that simulator fidelity was maintained. Open simulator discrepancies were reviewed for importance relative to the impact on 10 CFR 55.45 and 55.59 operator actions as well as on nuclear and thermal hydraulic operating characteristics. The inspectors conducted interviews with members of the licensee's simulator staff about the configuration control process and completed the NRC Inspection Procedure 71111.11, Appendix C, checklist to evaluate whether or not the licensee's plant-referenced simulator was operating adequately as required by 10 CFR 55.46(c) and (d).

b. Findings

No findings of significance were identified.

.10 Quarterly Resident Inspector Observation of Operator Training

a. Inspection Scope

The inspectors observed a training crew during an evaluated simulator scenario and reviewed licensed operator performance in mitigating the consequences of events. The scenario included multiple failures, and resulted in 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, emergency plan execution, and group dynamics.

The inspectors' observation of this simulator scenario constituted one inspection sample.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors reviewed the licensee's handling of performance issues and the associated implementation of the Maintenance Rule (10 CFR 50.65) to evaluate maintenance effectiveness for the selected systems. The following systems and components were selected based on being designated as risk significant under the

Maintenance Rule, being in the increased monitoring (Maintenance Rule category a(1)) group, or due to an issue or problem that potentially impacted system work practices, reliability, or common cause failures:

- Trip of 'A' Control Room Ventilation (VC) radiation monitors during work on the post Loss of Coolant Accident (LOCA) monitoring system 'B' gross gamma analyzer;
- Low flow and corrosion issues in the Core Standby Cooling System (CSCS) piping and heat exchangers; and
- Catastrophic failure of the Unit 2 Station Air Compressor (SAC) during post-maintenance testing (PMT) due to human performance procedure compliance error.

The inspectors review included verification of the licensee's categorization of specific issues including evaluation of the performance criteria, appropriate work practices, identification of common cause errors, extent of condition, and trending of key parameters. Additionally, the inspectors reviewed the licensee's implementation of the Maintenance Rule requirements, including a review of scoping, goal-setting, performance monitoring, short-term and long-term corrective actions, functional failure determinations associated with the condition reports reviewed, and current equipment performance status.

These reviews represented three inspection samples.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed and observed emergent work, preventive maintenance, and planning for risk significant maintenance activities. The following activities or risk significant systems undergoing scheduled or emergent maintenance were included:

- Unit 2 Reactor Coolant Cleanup (RT) System Repairs;
- 1A and 1B Reactor Recirculation (RR) pump motor oil addition at power;
- Emergent repairs to the Unit 2 SAC following catastrophic failure during post-modification testing; and
- Review of the 1B RR Flow Control Valve (FCV) hydraulic oil leak inside primary containment.

The inspectors also reviewed the licensee's evaluation of plant risk, risk management, scheduling, and configuration control for these activities in coordination with other scheduled risk significant work. The inspectors verified that the licensee's control of activities considered assessment of baseline and cumulative risk, management of plant configuration, control of maintenance, and external impacts on risk. In-plant activities were reviewed to ensure that the risk assessment of maintenance or emergent work was

complete and adequate, and that the assessment included an evaluation of external factors. Additionally, the inspectors verified that the licensee entered the appropriate risk category for the evolutions.

These reviews constituted four inspection samples.

b. Findings

No findings of significance were identified.

1R14 Operator Performance During Non-Routine Plant Evolutions and Events (71111.14)

.1 Unit 1 Power Reduction and Drywell Entry to Add Oil to RR Pumps

a. Inspection Scope

The inspectors performed several hours of control room observation to evaluate operator performance during a planned Unit 1 power reduction to approximately 12 percent, which was performed to facilitate drywell entry and oil addition to the Unit 1 RR pumps with the unit remaining at power. The inspectors reviewed operator logs and plant computer data to determine how the unit responded and to verify that operator actions were appropriate, and consistent with operator training and plant procedures. The licensee's troubleshooting, repair strategy, planned recovery actions, procedures, reactivity manipulation briefings, and contingency plans were also reviewed by the inspectors to identify any personnel performance issues. In addition, the inspectors verified that any problems encountered during the non-routine evolution were identified by the licensee, and appropriately entered into the corrective action program.

The observation of this non-routine evolution by the inspectors constituted a single inspection sample.

b. Findings

No findings of significance were identified.

.2 Annual Review of Licensee Event Reports (LERs) for Personnel Performance Issues

a. Inspection Scope

The inspectors screened all LERs submitted by the licensee during the past four calendar quarters to determine if any involved operator performance errors. Where applicable, the inspectors verified that licensee personnel responded in accordance with applicable procedures and training.

This review constituted a single inspection sample.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the technical adequacy of the following operability evaluations to determine the impact on Technical Specifications, the significance of the evaluations, and to ensure that adequate justifications were documented:

- EC 356939, "Reactor Core Isolation Cooling (RCIC) Safe Shutdown;"
- Residual Heat Removal (RHR) System Water Leg Pump Design Pressure;
- OE 05-04, Revision 1, "2IN043;"
- OE 05-07, Revision 0, "Unit 1 Control Rod Drive (CRD) 30-39;"
- Switchgear Heat Removal (VX) System Fan (2VX01C) Failure; and
- OE 05-08, Revision 0, "1B Reactor Recirculation (RR) Flow Control Valve (FCV) Hydraulic Leak in Containment."

Operability evaluations were selected based upon the relationship of the safety-related system, structure, or component to risk.

The inspectors' review of these operability evaluations and issues constituted six inspection samples.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (71111.16)

.1 Unit 1 Control Rod 38-43 Channel Distortion Issues/Increased Testing Requirements

a. Inspection Scope

The inspectors reviewed a potential operator workaround associated with Unit 1 control rod travel times. Specifically, the inspectors focused on the control rod channel distortion issues and increased surveillance requirements for Unit 1 control rod 38-43. The inspectors reviewed the potential workaround's impact on the ability of Unit 1 control room operators to adequately perform reactivity adjustments on the unit and any potential impact on the plant's safety analysis.

The inspectors' review of this issue as a potential operator workaround constituted a single inspection sample.

b. Findings

No findings of significance were identified.

.2 Semiannual Review of the Cumulative Effects of Operator Workarounds

a. Inspection Scope

The inspectors performed a semiannual review of the cumulative effects of operator workarounds. This inspection entailed a review of all known operator workarounds, operator challenges, control room deficiencies, and entries on the shift operations superintendent's (SOS's) concerns list for the aggregate impact of these issues on the reliability, availability, and potential for improper operation of systems important to safety. Additionally, the inspectors' reviews determined if the known issues and deficiencies could increase the possibility of an initiating event, affect multiple mitigating systems, or impact the operators' ability to respond to accidents or transients.

This semiannual review constituted a single inspection sample.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors selected the following post-maintenance activities for review. Activities were selected based upon the structure, system, or component's ability to impact risk:

- Unit 1 'A' Residual Heat Removal (RHR) pump post-maintenance testing after breaker inspections and pump maintenance; and
- Unit 2 Division 1 Core Standby Cooling System (CSCS) ventilation temperature controller testing after controller replacement.

The inspectors verified by witnessing the test or reviewing the test data that post-maintenance testing activities were adequate for the above maintenance activities. The inspectors reviews included, but were not limited to, integration of testing activities, applicability of acceptance criteria, test equipment calibration and control, procedural use and compliance, control of temporary modifications or jumpers required for test performance, documentation of test data, Technical Specification applicability, system restoration, and evaluation of test data. Also, the inspectors verified that maintenance and post-maintenance testing activities adequately ensured that the equipment met the licensing basis, Technical Specifications, and Updated Final Safety Analysis Report (UFSAR) design requirements.

The inspectors' review of these post maintenance tests constituted two inspection samples.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors selected the following surveillance test activities for review. Activities were selected based upon risk significance and the potential risk impact from an unidentified deficiency or performance degradation that a system, structure, or component could impose on the unit if the condition were left unresolved:

- '0' Emergency Diesel Generator (EDG) fast start test;
- Unit 1 Reactor Core Isolation Cooling (RCIC) cold quick start and Inservice Test (IST); and
- Unit 1 Division 2 Residual Heat Removal (RHR) Motor Operated Valve (MOV) thermal overload testing.

The inspectors observed the performance of surveillance testing activities, including reviews for preconditioning, integration of testing activities, applicability of acceptance criteria, test equipment calibration and control, procedural use, control of temporary modifications or jumpers required for test performance, documentation of test data, Technical Specification applicability, impact of testing relative to performance indicator reporting, and evaluation of test data.

The review of these surveillance activities by the inspectors constituted three inspection samples.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed a temporary modification to change the Unit 2 containment oxygen monitor, 2PL78J, operational mode from running continuously to running once a week. The inspectors reviewed the safety screening, design documents, UFSAR, and applicable Technical Specifications to determine that the temporary modification was consistent with modification documents, drawings and procedures. The inspectors also reviewed the post-installation test results to confirm that tests were satisfactory and that the actual impact of the temporary modification on the permanent system and interfacing systems were adequately verified.

The inspectors' review of this temporary modification represented a single inspection sample.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspectors performed a screening review of Revisions 17, 18, and 19 of the LaSalle County Station Annex to the Exelon Standardized Emergency Plan to determine whether the changes made in any of these revisions decreased the effectiveness of the licensee's emergency planning. The screening review of this revision did not constitute an approval of the changes and, as such, the changes are subject to future NRC inspection to ensure that the emergency plan continues to meet NRC regulations.

These reviews collectively constituted a single inspection sample.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed an Emergency Preparedness (EP) team drill involving the licensee's Technical Support Center (TSC) and Operations Support Center (OSC) to evaluate drill conduct and the adequacy of the licensee's critique of performance to identify weaknesses and deficiencies. The selected drill scenario included an opportunity for the classification of a site area emergency condition, an opportunity for the classification of a subsequent general emergency condition, and the opportunity for a protective action recommendation change following a simulated wind direction shift. All three classification opportunities also included opportunities for transmission of the information to state and local emergency centers, and provided input into the NRC Drill/Exercise Performance Indicator. Observations were compared to the licensee's observations and corrective action program entries. The inspectors verified that there were no discrepancies between observed performance and performance indicator reported statistics.

The inspectors' observation of this EP drill scenario constituted a single inspection sample.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control To Radiologically-Significant Areas (71121.01)

.1 Review of Licensee Performance Indicators for the Occupational Exposure Cornerstone

a. Inspection Scope

The inspectors reviewed the licensee's occupational exposure control cornerstone Performance Indicators (PIs) to determine whether or not the conditions surrounding the PIs had been evaluated, and identified problems had been entered into the corrective action program for resolution.

This review represented one inspection sample.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the data submitted by the licensee for the 3rd Quarter 2005 performance indicators for any obvious inconsistencies prior to its public release in accordance with IMC 0608, "Performance Indicator Program."

This review was performed as a part of the inspectors normal Plant Status duties, and did not represent an individual inspection sample.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As part of the various baseline inspection procedures conducted during the period, the inspectors verified that the licensee entered the problems identified during the inspection into their corrective action program. Additionally, the inspectors verified that the licensee was identifying issues at an appropriate threshold and entering them in the corrective action program, and verified that problems included in the licensee's corrective action program 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 1 of this report.

b. Findings

No findings of significance were identified.

.2 Daily Corrective Action Program (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 did not constitute any additional inspection samples. Instead, by procedure they were considered part of the inspectors' daily plant status monitoring activities.

b. Findings

No findings of significance were identified.

.3 Semi-Annual Trend Review

a. Inspection 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 4OA2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the 6 month period of July 2005 through December 2005, 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, 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.

This semi-annual trend review did not constitute an additional inspection sample. Instead, by procedure it was considered part of the inspectors' daily plant status monitoring activities.

b. Findings and Issues

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

.4 Operator Licensing Branch Biennial Review

a. Inspection Scope

The inspectors reviewed the licensee's quality assurance oversight activities concerning the operations department, licensee training department self-assessment reports, and minutes of the station's curriculum review committee. The licensee's and training department's self-assessments and curriculum review committee minutes reviewed the licensed operator training program for approximately 24 months prior to this inspection activity. These documents were reviewed by the inspectors to ensure that any issues identified by the oversight activities and committee reviews were appropriately evaluated, prioritized, and controlled.

This review for the identification and resolution of problems did not constitute an additional inspection sample. Instead, by procedure it was considered an integral part of the inspections documented in Section 1R11 of this report.

b. Findings

No findings of significance were identified.

.5 Selected Issue Follow-up Inspection: Loss of Control Room Ventilation (VC) Radiation Monitors during RP-23 Power Supply Replacement

Introduction

On October 13, 2005, during a routine surveillance, licensee maintenance personnel identified voltage fluctuations in a power supply for a post Loss of Coolant Accident (LOCA) monitoring system. During repair activities, workers inadvertently shorted an energized lead, which resulted in the inoperability of the 'A' Control Room Area Filtration (CRAF) subsystem for approximately 8 hours. During this period, this train of CRAF remained available for use because operations personnel understood the cause of the inoperability and could manually initiate the system, by procedure, if required.

The inspectors selected the licensee's actions in response to this maintenance induced inoperability of the 'A' train of CRAF for a more in-depth review. The focus of this inspection was a review of the licensee's apparent cause evaluation, corrective actions, and extent-of-condition reviews.

The inspectors' review of this issue constituted a single inspection sample.

a. Effectiveness of Problem Identification

(1) Inspection Scope

The inspectors reviewed the licensee's CAP entries and actions associated with this issue to verify that the identification of the problems by the licensee were complete, accurate, and timely, and that the consideration of extent-of-condition review, generic implications, common cause, and previous occurrences were adequate.

(2) Issues

In general, the licensee's CAP efforts were adequate at identifying the apparent cause of the radiation monitor trips and the various underlying causal factors. The licensee's primary CAP product for this issue, apparent cause evaluation (ACE) 386222, discussed the apparent cause of the problem as a failure to properly control lifted leads. Further, the ACE discussed the fact that neither maintenance nor operations staff reviewed drawings for the specific circuit breaker that could be impacted by a short and that placing a clearance order to remove power from the affected power supplies could have prevented this event.

In reviewing the ACE and event in detail, however, the inspectors noted that the licensee's CAP process did not identify during the extent-of-condition review several similar occurrences involving maintenance risk assessment. In March 2004, planned work to install phone cable inside a process computer cabinet did not assess the risk to control room indications. Workers inadvertently shorted the power supply to the cabinet causing the loss of the Safety Parameter Display System (SPDS) and the core thermal limit monitoring program on both units. In January 2005, planned work on the Unit 1 'A' circulating water (CW) pump was not assessed for risks to common CW pump circuitry in the event of an electrical short. During replacement of the 'A' CW pump's run time meter,

a maintenance induced short resulted in the trip of the 'C' CW pump due to an unreviewed electrical connection between the 'A' and 'C' CW pump circuitry. Given this history of similar events, there was a missed opportunity for the licensee to identify a potential continuing weakness with maintenance risk assessment with respect to lifting energized leads.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

In reviewing the licensee's CAP entries and actions associated with this issue, the inspectors considered the licensee's evaluation and disposition of performance issues, evaluation and disposition of operability issues, and application of risk insights for prioritization of issues.

(2) Issues

In general, the licensee's CAP efforts were adequate in their assignment of priorities to and evaluation of this issue. However, because similar issues involving inadequate maintenance risk assessment were not identified, an opportunity was missed to evaluate larger issues of how maintenance personnel minimize risk prior to performing work. For example, while the ACE states that no actions taken as a result of related events would have prevented this event, it also states that consideration to entering the applicable limiting condition for operation (LCO) and placing a clearance order to remove power could have prevented this event. Inspectors noted that, had maintenance or operations staff considered past issues in which work performed outside the boundary of a clearance order resulted in transients or loss of equipment, they might well have considered the placement of a clearance order prior to performing this work.

Inspectors also noted that the need to properly mitigate maintenance risk is especially important during emergent work or ongoing work during which the work scope has changed because these activities may be conducted outside of the normal work planning process. On October 13, 2005, the need to replace the post LOCA monitoring system 'B' gross gamma analyzer RP-23 power supply was identified during a routine surveillance. On October 14th, emergent work order 850852 was created to repair the power supply. During maintenance activities, it was determined that the initial work instructions could not be performed as written due to a different than planned wiring configuration. Work instructions were revised to lift energized leads at the rear of the RP-23 power supply. While performing the maintenance, workers inadvertently shorted an energized lead to the power supply case. This tripped circuit breaker 1CB2, which de-energized the 'C' and 'D' VC radiation monitors for the 'A' CRAF subsystem. The 'A' train of CRAF was rendered inoperable for approximately 8 hours by this event.

Operations and maintenance personnel discussed the potential to impact nearby power supplies prior to performing this maintenance, but determined the use of human performance tools would be sufficient to preclude errors. It is unclear whether the potential to enter a 7 day Technical Specification LCO was considered; neither maintenance nor operations personnel reviewed the drawing for the specific circuit breaker that would be affected by a short or a ground to a lifted lead as specified in the

work order's Attachment 1 of MA-MW-1001, "Maintenance Risk Assessment." The intent of this Attachment was to ensure that appropriate compensatory measures were implemented to mitigate the risk impact of performing this task. While the ACE did identify that the required drawing review did not occur, licensee personnel did not evaluate why this specific step in the work package was not performed or documented as required by MA-MW-1001. Inspectors further noted that this step had been added to the work planning process specifically to address past issues involving shorted leads and inadequate maintenance risk assessment.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The inspectors reviewed multiple related CAP documents associated with the maintenance induced trip of the VC radiation monitors. The intent of this review was to determine if the CAP actions effectively addressed the causal factors of this event.

(2) Issues

CAP actions to address this event consisted primarily of reinforcing the need to review prints and consider clearance orders prior to working on energized equipment. Inspectors noted that similar corrective actions have been taken in the past for related issues, including such actions as discussing with emphasis, clarifying expectations and exercising a heightened level of awareness with respect to maintenance risk assessment. Additionally, training, procedural and documentation changes have been made in an attempt to address this issue as the result of past occurrences. However, based on a history of related events, the inspectors determined that the effectiveness of these and past corrective actions remained indeterminate.

.6 Selected Issue Follow-up Inspection: Status of Human Performance Cross-Cutting Issue Corrective Actions and Comprehensive Improvement Program

Introduction

The licensee has had a long-standing issue in human performance. This issue was first identified during the 2004 mid-cycle assessment and continued to be of regulatory concern during both the 2004 end-of-cycle and the 2005 mid-cycle assessments.

While assessment results regarding the licensee's improvements in human performance during plant outage periods was indeterminate, the NRC staff did acknowledge that the assessment results showed an apparent trend towards a reduction in human performance issues and events during recent periods of normal plant operation at power.

The inspectors' review of this issue constituted a single inspection sample.

a. Prioritization and Evaluation of Issues

(1) Inspection Scope

In reviewing the licensee's comprehensive human performance improvement plan and related documents, the inspectors considered the evaluation and disposition of performance issues, evaluation and disposition of operability issues, and application of risk insights for prioritization of issues. The specific focus for the inspectors' review was the time period from December 31, 2004, through December 31, 2005.

(2) Issues

The inspectors found that the licensee has continued to give an appropriately high priority to the actions intended to address the substantive cross-cutting issue in human performance. The licensee's comprehensive improvement plan has continued to be provided with routine and regular updates as new CAP data becomes available.

In response to the continuance of the substantive cross-cutting issue in human performance in the 2005 LaSalle Mid-Cycle Assessment letter, the licensee acknowledged that sustained improvement in human performance during outage periods had yet to have been conclusively demonstrated. As a result, additional specific actions aimed at increasing human performance awareness during outages were developed and put into place for the upcoming Unit 1 refuel outage (L1R11) in February 2006.

b. Effectiveness of Corrective Actions

(1) Inspection Scope

The inspectors reviewed the licensee's comprehensive human performance improvement plan and related documents in detail, with the intent of determining whether or not the CAP actions addressed generic implications, and to verify that corrective actions were appropriately focused to correct the human performance problems. The specific focus for the inspectors' review was the time period from December 31, 2004, through December 31, 2005.

(2) Issues

For the focus period noted above, the inspectors identified four findings of very low safety significance (Green) where human performance was not adequate. The breakdown of these findings by cornerstone was as follows:

- Initiating Events: three items; and
- Occupational Radiation Safety: one item.

The inspectors next analyzed the data for the focus period with respect to event dates in an effort to identify whether or not the trend in human performance issues was declining, improving, or steady. For the above events identified during the focus period, all but one took place during the licensee's last refueling outage (L2R10) in February 2005. The single issue that did not occur during the L2R10 refueling outage took place prior to that

outage, and no findings of significance with human performance cross-cutting aspects were identified subsequent to the L2R10 refueling outage.

The inspectors concluded that the licensee still met the criteria for a substantive human performance cross-cutting issue at the end of the focus period, as discussed in NRC IMC 0305, Section 06.06i, "Substantive Cross-Cutting Issues." Each of the four items identified could be traced back to a human performance error involving a central common theme of procedure compliance or procedure adherence, use of procedures, or compliance with established standards, expectations, and training. As was the case with the 2005 mid-cycle assessment, with a significant number of the licensee's human performance issues for the focus period coinciding with the L2R10 refueling outage, the inspectors concluded that the licensee's corrective actions intended to specifically address those human performance problems associated with the high-tempo pace of refueling operations remained indeterminate. However, the inspectors also concluded that licensee non-refuel outage human performance continued to show improvement.

4OA3 Event Follow-up (71153)

Cornerstones: Mitigating Systems and Barrier Integrity

- .1 (Closed) Licensee Event Report (LER) 05000373/2005-003-00: Main Steam Line High Flow Main Steam Isolation Valve (MSIV) Isolation Differential Pressure Switches Failed Due to Manufacturing Error.

On May 5, 2005, during performance of Technical Specification surveillance LIS-MS-102, "Main Steam Line High Flow MSIV Isolation Calibration," the high flow differential pressure switch (1E31-N008B) for the 'A' main steam line could not be calibrated to within the required band. The switch is part of the primary leak detection (LD) system, and provides an isolation signal to the MSIVs and main steam line drain valves in the event of a main steam line break. After replacement, the switch tested satisfactorily and was declared operable.

On May 6, 2005, following resumption of the Technical Specification surveillance, the high flow differential pressure switch for the 'C' main steam line (1E31-N010B) also failed its calibration. The switch was replaced and tested satisfactorily.

Both differential pressure switches were sent to the manufacturer, Static O-Ring (SOR), for failure analysis. At the SOR facility, it was determined that the cause of both failures was silicone contamination on the switch contacts, rusted bearings, and rust sediment in the low side pressure port cavity. The failures were, therefore, determined to have a common cause, and the licensee concluded that it was highly likely that the switches were simultaneously failed for a period of time. The 1E31-N010B and 1E31-N008B switches are in the same one-out-of-two-taken-twice B1 logic channel for the isolation logic for the inboard MSIV and main steam line drains. Given that the switches in the other logic channel, B2, successfully passed the surveillance calibration and were, therefore, always operable and available, there was no loss of safety function as a result of this event.

Corrective actions taken by the licensee included replacement of the model 102 SOR switches that failed with SOR model 131/141 switches. The new switches were

considered by the manufacturer to be improved over the previous model, and were expected to provide more reliable service. This event was entered into the licensee's corrective action program as IR 332637.

Because there was no licensee performance deficiency associated with this event, there were no findings of significance identified by the inspectors. Similarly, the inspectors identified no violations of regulatory requirements during this event review.

The inspectors' review and closure of this LER constituted a single inspection sample.

.2 (Closed) Licensee Event Report (LER) 05000373/2005-004-00: Trip of the System Auxiliary Transformer (SAT) Feed Breaker to Bus 143 Due to Ground Fault in Potential Transformer.

At 6:54 p.m. on August 17, 2005, the 1B Emergency Diesel Generator (EDG) was started and loaded for a 24-hour scheduled Technical Specification surveillance run. At approximately 2:40 p.m. on August 18, 2005, the EDG's output decreased from 2600 kW to 2260 kW, and approximately 40 seconds later, the SAT feed breaker (ACB 1432) to Bus 143 tripped resulting in multiple control room alarms. Immediately following the trip of the SAT feeder breaker, the 1B EDG continued to run and supply power to Bus 143. Control room operators performing follow-up panel inspections in response to the alarms noted that the 1B EDG cooling water pump was not running, and manually secured the EDG. Locally, operators discovered smoke coming from the EDG lubrication oil circulating pump disconnect box at the diesel skid.

The licensee conducted an investigation to determine the root cause of the event and any contributing causes for the trip of the SAT feeder breaker and other potential equipment failures that occurred during the 1B EDG surveillance run. The cause of the event was determined to have been a phase to ground short that occurred in the primary winding of the T1 potential transformer (PT) supplying the 1B EDG voltage regulator. A definite root cause for the failed PT winding was not determined, but the most likely cause was determined to have been a manufacturing defect based on failure analysis testing of the removed component.

The failure resulted in the loss of all Division 3 electrical power to Unit 1, and the inoperability of the Unit 1 High Pressure Core Spray (HPCS) system and Division 3 AC power system. However, because redundant Emergency Core Cooling Systems (ECCS) from Division 1 and 2 were available and able to perform their safety functions, an assessment by the licensee determined the increase in risk to the plant from the event to have been minimal. This minimal increase in risk was independently calculated and confirmed by the inspectors, with assistance from the NRC regional senior reactor analyst (SRA). As a result, NRC Region III management determined that no Special Inspection in response to the event was warranted.

Corrective actions taken by the licensee included replacement of failed components and resistance checks of all involved electrical circuits. Additionally, the licensee has scheduled the replacement of all similar PTs in the station's other EDGs for the applicable EDG work windows in 2006. Following the replacement of failed components and post-maintenance testing, the 24-hour loaded surveillance run of the 1B EDG was

successfully completed on August 22, 2005. This event was entered into the licensee's corrective action program as IR 364534.

Because there was no licensee performance deficiency associated with this event, there were no findings of significance identified. Additionally, no violations of regulatory requirements were identified during the inspectors' event review.

The inspectors' review and closure of this LER constituted a single inspection sample.

.3 (Closed) Licensee Event Report (LER) 05000374/2005-003-00: Multiple Containment Isolations Following Loss of 480 Vac Safety Related Buses Due to Failed Neutral Over Current Relay.

On June 21, 2005, with Unit 2 operating at full power and no plant manipulations in progress, multiple panel alarms were received in the Unit 2 control room indicating a loss of Division 1 480 Vac safety and non-safety switchgears 235X and 235Y. The loss of Division 1 480 Vac power resulted in multiple plant transients, including the isolation of instrument nitrogen, the isolation of the Reactor Water Clean Up (RWCU) system, the loss of power to the Unit 2 Reactor Building Ventilation (VR) system, the loss of power to the 2A Standby Liquid Control (SBLC) pump, a reactor scram on the loss of power to the Reactor Protection System (RPS), and the loss of power to Reactor Recirculation (RR) system flow control. Due to loss of Division 1 power, control room operators also declared the 2A Residual Heat Removal (RHR) train and the unit's single Low Pressure Core Spray (LPCS) system train inoperable.

After being notified by plant operators of the off hours event, the senior resident inspector responded to the station to monitor the licensee's event response and recovery activities. Because the event involved only Division 1 AC power and Division 2 and 3 power and components were all operable and available, inspectors and the Regional SRA determined that the increase in plant risk associated with the event was minimal. As a result, NRC Region III management determined that no Special Inspection in response to the event was warranted.

An initial field investigation by the licensee identified that a neutral over current ground shield relay (GR-5) for switchgear 235X had tripped. The licensee conducted troubleshooting to determine if a true ground condition existed, but all resistance measurements were normal. The licensee then focused their investigation on the tripped protective relay. The suspect relay was removed and subjected to diagnostic testing both on site and at an off site laboratory. Although there was no date code on the relay board that was removed, most components on this board were manufactured in 1974, likely indicating that the subject relay was between 30 and 31 years old.

The licensee's diagnostic tests revealed that the relay was tripping erroneously when the device was heated up. Further laboratory testing more specifically identified the failure mechanism as an age related degradation of the relay's semi-conductor sub components. Corrective actions taken or planned by the licensee included the replacement of the defective GR-5 relay with a new component, and the planned replacement of the remaining 109 type GR-5 relays at LaSalle Station identified by the licensee's

extent-of-condition review. The population and priority of the GR-5 relays was broken into four different categories:

- Non-safety related, on-line replacement;
- Safety related, on-line replacement;
- Non-safety related, off-line replacement; and
- Safety related, off-line replacement.

In addition, the licensee initiated a review to determine the applicability of a 10 CFR 21 report. This event was entered into the licensee's corrective action program as IR 346214 and IR 346255.

The inspectors' review of this event did not identify any associated licensee performance deficiencies. As a result, no findings of significance were identified. Additionally, the inspectors' review also did not identify any violations of regulatory requirements associated with the event.

The inspectors' review and closure of this LER constituted a single inspection sample.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to the Site Vice President, Ms. Susan Landahl, and other members of licensee management on January 5, 2006. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

.2 Interim Exit Meetings

Interim exit meetings were conducted for the following inspections:

- A Biennial Operator Requalification Program Inspection with the Site Vice President, Ms. Susan Landahl, and other members of licensee management on October 28, 2005.
- The Biennial Operator Requalification Program Inspection was discussed again with Mr. L. Blunk, Operations Support Manager, and other members of the licensee's staff via telephone on December 9, 2005.
- The review of Emergency Preparedness plan changes was discussed via telephone with Mr. S. McCain, the Exelon Corporate Emergency preparedness Manager, on December 29, 2005.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

S. Landahl, Site Vice President
D. Enright, Plant Manager
R. Bassett, Emergency Preparedness Manager
L. Blunk, Operations Support Manager
T. Connor, Maintenance Director
L. Coyle, Operations Director
D. Czufin, Site Engineering Director
R. Dus, Operations Training Manager
R. Ebright, Site Training Director
F. Gogliotti, System Engineering Manager
B. Kapellas, Radiation Protection Manager
S. Marik, Shift Operations Superintendent
S. McCain, Corporate Emergency Preparedness Manager
J. Rapoport, Nuclear Oversight Manager (Acting)
D. Rhodes, Work Management Director
T. Simpkin, Regulatory Assurance Manager
C. Wilson, Station Security Manager

Nuclear Regulatory Commission personnel

J. Lara, Chief, Electrical Engineering Branch, NRC Region III Division of Reactor Safety

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

- | | | |
|---|-----|---|
| 05000373/2005005-01;
05000374/2005005-01 | URI | Credit for More Operators than Described by the Minimum Staffing Specified in 10 CFR 50.54(m) for Watch Standing Proficiency (Section 1R11.7) |
| 05000373/2005005-02;
05000374/2005005-02 | URI | Two Partial Shifts Added Together to Meet the Requirement for a Shift Specified in 10 CFR 55.53(e) for License Re-activation (Section 1R11.7) |

Closed

- | | | |
|----------------------|-----|---|
| 05000373/2005-003-00 | LER | Main Steam Line High Flow Main Steam Isolation Valve (MSIV) Isolation Differential Pressure Switches Failed Due to Manufacturing Error (Section 4OA3.1) |
| 05000373/2005-004-00 | LER | Trip of the System Auxiliary Transformer (SAT) Feed Breaker to Bus 143 Due to Ground Fault in Potential Transformer (Section 4OA3.2) |
| 05000374/2005-003-00 | LER | Multiple Containment Isolations Following Loss of 480 Vac Safety Related Buses Due to Failed Neutral Over Current Relay (Section 4OA3.3) |

Discussed

None.

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

LOS-ZZ-A2; Preparation for Winter/Summer Operation; Revision 31

Section 1R04: Equipment Alignment

Procedures

- LOP-HP-01E; Unit 2 HPCS Electrical Checklist; Revision 5
- LOP-HP-01E; Unit 2 HPCS Mechanical Checklist; Revision 15
- LOP-RH-03E; Unit 2 RHR Service Water System Electrical Checklist; Revision 6
- LOP-RH-04E; Unit 2 RHR System Electrical Checklist; Revision 14
- LOP-RH-11; Preparation for Standby Operation of the LPCI System; Revision 23
- LOP-RH-2AM; Unit 2 'A' RHR System Mechanical Checklist; Revision 0
- LOP-RH-2BM; Unit 2 'B' RHR System Mechanical Checklist; Revision 0
- LOP-RH-2CM; Unit 2 'C' RHR System Mechanical Checklist; Revision 0
- LOP-RHWS-2AM; Unit 2 'A' RHRSW System Mechanical Checklist; Revision 1
- LOP-RHWS-2BM; Unit 2 'B' RHRSW System Mechanical Checklist; Revision 3

Section 1R05: Fire Protection

Issue Reports

- 399663; NRC Concerns on U1 761' with IN Mod Work; 11/16/2005

LaSalle County Station - Fire Protection Report (FPR)

Procedures

- LOS-DC-Q7; Quarterly Appendix R Emergency Lighting Battery Pack Inspection & Test Data Sheet; Revision 3

Section 1R06: Flood Protection Measures

Drawings

- 1E-1-4022AB; Schematic Diagram Circulating Water Pump 1B System "CW" Part 2; Revision S

LaSalle County Generating Station Probabilistic Risk Analysis; Revision 4

Procedures

- LOA-FLD-001; Flooding; Revision 6
- LOA-DIKE-001; Lake Dike Damage/Failure; Revision 5

Updated Final Safety Analysis Report; Revision 15:

- Section 2.0; Site Characteristics
- Section 3.4; Water Level (Flood) Design
- Section 3.9; Mechanical Systems and Components
- Section 3.11.1.4; Evaluation for Flooding and Submergence

Section 1R11: Licensed Operator Requalification Program

Procedures and Related Documents

- LS-AA-126-1001; LORT NRC Pre 71111.11 Inspection Focused Area Self-Assessment Report; August 28, 2005
- TQ-AA-106-0304, Attachment 1; LaSalle County Station 2004 -2005 LORT Program Classroom Summary; Revision 2
- TQ-AA-106-0304, Attachment 2; LaSalle County Station 2004 - 2005 LORT Program Simulator Summary; Revision 2
- TQ-AA-106-0304, Attachment 3; LaSalle County Station 2004 - 2005 LORT Category Subject Hours Distribution; Revision 2
- TQ-AA-106-0304, Attachment 4; LaSalle County Station 2004-2005 LORT Category Distribution; Revision 2
- TQ-AA-106-0304, Attachment 5; LaSalle County Station LORT Examination Question Distribution; Revision 2
- TQ-AA-210-4102; Performance Review Committee Data Sheet; Various

LaSalle County Station Simulator Feedback Form; Various

Requalification Examinations (Operating) - Various; 2004 - 2005

Requalification Examinations (Written) - Various; 2003 - 2005

LaSalle County Station Simulator Test Procedure and Results - Various; 2003 - 2005

ESG 74; Licensed Operator Requalification Scenario Guide; Revision 0

Section 1R12: Maintenance Effectiveness

GL 89-13 Program Basis Document; Revision 0

Issue Reports

- 218711; 1&2DG007 Valve PM Unable to be Performed Prior to Crit Date; 5/4/2004
- 263535; GL 89-13 Commitment Changes are Required; 10/14/2004
- 331529; 2VY03A Cooling Water Flow Lower than Expected; 5/03/2005
- 346319; Surveillance Rescheduled due to No Contingency in Place; 6/21/2005
- 385733; 1RIT-CM017 Powersupply Issues/RIT Issues Also w/ Trip Knob; 10/13/2005
- 385752; 89-13 Program PI for 3rd Quarter is Yellow; 10/13/2005
- 386112; Unexpected LOA Entry/ Unexpected TS Entry; 10/14/2005
- 386222; VC Trip During Work on 1RIT-CM017; 10/14/2005
- 393909; 2D RHR WS PP Disch Pressure Gauge Slow to Respond; 11/02/2005
- 426990; U2 SAC Tripped on High Vibrations; 11/22/2005
- 427351; PMT Task Not Initiated for U-2 SAC Modification; 11/21/2005

Procedures

- CY-AA-120-410; Circulating/Service Water Chemistry; Revision 1
- CY-LA-120-4100; LaSalle Station Lake Chemistry Control; Revision 2

- MA-AA-716-010; Maintenance Planning; Revision 7
- MA-MW-1001; Maintenance Risk Assessment; Revision 3

Exelon Reports

- LAS-33309 Rev1; Evaluation of Degraded Valve Discs for LaSalle Station; 9/16/2002
- LAS-37426; Evaluation of the 2DG008 Valve from the CSCS System at LaSalle Station; 11/1/2002
- LAS-01429; Evaluation of Stem to Disc Connections on Gate Valves Removed from the CSCS System on LaSalle Unit 1; 5/5/2004

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Issue Reports

- 389005; Oil Addition to 1B RR Motor Lower Bearing; 10/22/2005
- 389006; Added Oil to 1A RR Motor Upper Tank; 10/22/2005
- 426990; U2 SAC Tripped on High Vibrations; 11/22/2005
- 427351; PMT Task Not Initiated for U-2 SAC Modification; 11/21/2005

Procedures

- LAP-900-45; Drywell Entry; Revision 10
- LOP-RR-10; Adding Oil to Reactor Recirculation Pumps; Revision 4

Section 1R14: Personnel Performance During Non-Routine Plant Evolutions and Events

Issue Reports

- 388542; FIN Post Job Brief for U-1 MDRFP X-mitter Replacement; 10/21/2005
- 388904; 1FW008 Indicated 55% when Started for Downpower on 10-21-05; 10/21/2005
- 388936; U-1 MDRFP Suction Relief Appears to be Leaking; 10/21/2005
- 388945; 11A Heater Level during R Downshift; 10/22/2005
- 388963; 1A RR Pump Motor Upper RSVR Level Low Alarm; 10/22/2005
- 388964; A Single HTR (14B) Tripped High During RR Downshift 10-21-05; 10/22/2005
- 388967; Received MSL Hi Rad Alarms on U1 During Downpower; 10/22/2005
- 388969; MDRFP Low Lube Oil Pressure Alarm During MDRFP Start; 10/22/2005
- 388971; OPRM Hi Alarm Received During U1 Downpower 10-21-05; 10/22/2005
- 388981; NOS Identified LGP-2-1 Placekeeping Not Being Performed; 10/22/2005
- 389005; Oil Addition to 1B R Motor Lower Bearing; 10/22/2005
- 389006; Added Oil to 1A RR Motor Upper Tk; 10/22/2005
- 389157; 1B FW Pump External Trip; 10/22/2005
- 389218; Feedwater System Capability Without One TDRFP; 10/23/2005
- 426647; Oct Downpower Lesson Learned for RR Oil Add; 11/22/2005

Procedures

- LOA-RR-101; Unit 1 Reactor Recirculation System Abnormal; Revision 18
- LOP-CD-04; Shutdown of the Condensate and Condensate Booster System; Revision 14
- LOP-CM-02; Standby, Operation, and Shutdown of the Post LOCA Primary Containment Atmosphere Hydrogen and Oxygen Monitoring System; Revision 24
- LOP-FW-03; Startup of the Motor Driven Reactor Feed Pump (MDRFP); Revision 34
- LOP-FW-04; Startup of the Turbine Driven Reactor Feed Pump (TDRFP); Revision 46

- LOP-RR-10; Adding Oil to the Reactor Recirculation Pumps; Revision 4
- LOP-VQ-04; Special Operations/Modes of the Primary Containment Vent and Purge System; Revision 22

Section 1R15: Operability Evaluations

Issue Reports

- 389953; RHR Water Leg Pump Design Pressure Concern; 10/25/2005
- 392023; Motor Contactor in VX Supply Fan Breaker Burned Up; 10/29/2005

Formal Operability Evaluations

- OE 05-004; 2IN043 Check Valve Degraded; Revision 1
- OE 05-007; Unit 1 Control Rod 30-39 Fast Withdrawal Time; Revision 0
- OE 05-008; 1B Reactor Recirculation Flow Control Valve Hydraulic Leak in Containment; Revisions 0, 1, and 2

Engineering Changes/Evaluations

- EC 356939; Evaluation of RCIC Initiation from Remote Shutdown Panel for Safe Shutdown Analysis; 10/3/2005

Section 1R16: Operator Workarounds

Issue Reports

- 432717; Unit 1 Control Rod 18-07 Scram Speed Slow; 12/11/2005
- 432715; Unit 1 Control Rod 50-47 Scram Speed Slow; 12/11/2005

Operations Department Aggregate Review – 4th Quarter 2005; 12/15/2005

Unit 1 Control Rod 38-43 Enhanced Testing Schedule for Channel Distortion Issues

Section 1R19: Post-Maintenance Testing

Procedures

- LOP-VY-01; Start-Up and Shutdown of VY Ventilation Systems; Revision 1
- LOS-RH-Q1; Unit 1A RHR System Operability and Inservice Test; Revision 60
- MA-AA-IM-2-00203; Calibration of Love Controls Instrumentation; Revision 1

Work Orders

- 750114-01; Replace Love Controller 2TIC-VY023 w/ Moore 535 EC 335543; 11/8/2005
- 833148-01; OP LOS-RH-Q1 1A RHR and RHR SW System Att 1A; 10/25/2005

Section 1R22: Surveillance Testing

Issue Reports

- 427301; Procedure References Equipment Inoperability in Error; 11/22/2005
- 431064; NRC Issues with LOS-RI-Q5 Documentation; 12/05/2005

Procedures

- EN-MW-501; Chemical Management Program; Revision 3
- LOS-DG-M1; '0' Diesel Generator Operability Test; Revision 54
- LES-RH-103B; Unit 1 Division 2 RHR MOV Thermal Overload Bypass Channel Functional Test; Revision 7
- LOS-RI-Q5; Unit 1 Reactor Core Isolation Cooling System Pump Operability and Inservice Test in Mode 1,2,and 3; Revision 23

Work Orders

- 845329-01; OP LOS-RI-Q5 U1 RCIC Cold-Quick Start Att 1A; 12/5/2005

General Motors – Electro-Motive Division Stationary Power Operating Manual; 4th Edition

Section 1R23: Temporary Plant Modifications

Engineering Changes

- EC 353021; Work Planning Instructions for Modification to the Suppression Chamber and Drywell Monitoring Systems; Revision 0
- EC 354441; Design Consideration Summary for Containment Monitoring System; Revision 0

Issue Reports

- 171157; O2 Monitor 2AI-CM063 Reading Erratic Causing CR Alarms; 8/12/2003
- 231506; Erratic Indication of Continuous O2 Monitor Following LIP; 6/25/2004
- 243487; 1(2) PL78J Operation; 8/05/2004

Section 1EP4: Emergency Action Level and Emergency Plan Changes

LaSalle Nuclear Power Station Annex to the Exelon Standardized Emergency Plan; Revisions 17, 18, and 19

Section 1EP6: Drill Evaluation

Simulated Nuclear Accident Reporting System (NARS) Forms for Utility Messages 1 through 4 Generated on 11/29/2005.

Section 4OA2: Identification and Resolution of Problems

Issue Reports

- 049049; Perform Effectiveness Review on CAPRs; 1/15/2002
- 140613; Loss of Power Plex due to Blown Fuse on External Interrupt; 1/11/2003
- 210593; Loss of Power to Unit 0 Process Computer Cabinet 0C91-P633; 3/24/2004
- 287541; 1C Circ Water Pump Tripped; 1/04/2005
- 385733; 1RIT-CM017 Powersupply Issues/RIT Issues Also w/ Trip Knob; 10/13/2005
- 386112; Unexpected LOA Entry/ Unexpected TS Entry; 10/14/2005
- 386222; VC Trip During Work on 1RIT-CM017; 10/14/2005

Procedures

- MA-AA-716-010; Maintenance Planning; Revision 7
- MA-MW-1001; Maintenance Risk Assessment; Revision 3

Work Orders

- 850852-01; IM Contingency for Troubleshooting Package for Unit 0,1,2; 10/14/2005

Section 4OA3: Event Follow-up

Issue Reports

- 332637; 1E31-N010B Failed Calibration Check; 5/6/2005
- 364534; Trip of SAT Feeder Breaker to Bus 143; 8/18/2005
- 346214; 241Y Feed to 235X and 235Y Trip; 6/22/2005
- 346255; Trip of 241Y CUB 4 Feed to 235X/Y; 6/22/2005

LIST OF ACRONYMS USED

AC	Alternating Current
ACE	Apparent Cause Evaluation
CAP	Corrective Action Program
CAR	Corrective Action Request
CFR	Code of Federal Regulations
CR	Condition Report
CRAF	Control Room Area Filtration
CRD	Control Rod Drive
CSCS	Core Standby Cooling System
CW	Circulating Water
CY	Calendar Year
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
FCV	Flow Control Valve
HPCS	High Pressure Core Spray
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report or Issue Resolution
ISI	Inservice Inspection
JPM	Job Performance Measure
LCO	Limiting Condition for Operation
LD	Leak Detection
LER	Licensee Event Report
LOCA	Loss of Coolant Accident
LORT	Licensed Operator Requalification Training
LPCS	Low Pressure Core Spray
LSRO	Limited Senior Reactor Operator
MOV	Motor-Operated Valve
MSIV	Main Steam Isolation Valve
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
OSC	Operations Support Center
OWA	Operator Workaround
PI	Performance Indicator
PI&R	Problem Identification and Resolution
PMT	Post-Maintenance Testing
PT	Potential Transformer
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RO	Reactor Operator
RP	Radiation Protection
RPS	Radiation Protection Specialist
RPS	Reactor Protection System
RR	Reactor Recirculation
RT	Reactor Coolant Cleanup

RWCU	Reactor Water Cleanup
SAC	Station Air Compressor
SBLC	Standby Liquid Control
SDP	Significance Determination Process
SOR	Static O-Ring
SOS	Shift Operations Superintendent
SPDS	Safety Parameter Display System
SRA	Senior Reactor Analyst
SRO	Senior Reactor Operator
TS	Technical Specification
TSC	Technical Support Center
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
VC	Control Room Ventilation
VR	Reactor Building Ventilation
VX	Switchgear Heat Removal