January 25, 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 05000373/2007005; 05000374/2007005

Dear Mr. Pardee:

On December 31, 2007, 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 10, 2008, with the Site Vice President, Mr. Daniel Enright, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Based on the results of this inspection, one NRC-identified finding of very low safety significance was identified. This finding also involved a violation of NRC requirements. However, because the finding associated with this violation was of very low safety significance and because the issue has been entered into the licensee's corrective action program, the NRC is treating the issue as a Non-Cited Violation in accordance with Section VI.A.1 of the NRC's Enforcement Policy.

If you contest the subject or severity of any Non-Cited Violation in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspectors' Office at the LaSalle County Station.

C. Pardee

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Sincerely,

/**RA**/

Kenneth Riemer, Chief Branch 2 Division of Reactor Projects

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

- Enclosure: Inspection Report 05000373/2007005; 05000374/2007005 w/Attachment: Supplemental Information
- Site Vice President LaSalle County Station cc w/encl: Plant Manager - LaSalle County Station Regulatory Assurance Manager - LaSalle County Station Chief Operating Officer and Senior Vice President Senior Vice President - Midwest Operations Senior Vice President - Operations Support Vice President - Licensing and Regulatory Affairs Director - Licensing and Regulatory Affairs Manager Licensing - Braidwood, Byron and LaSalle Associate General Counsel **Document Control Desk - Licensing** Assistant Attorney General Illinois Emergency Management Agency State Liaison Officer Chairman, Illinois Commerce Commission

C. Pardee

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Kenneth Riemer, Chief Branch 2 **Division of Reactor Projects**

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Letter to C. Pardee from K. Riemer dated January 25, 2008

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 NRC INTEGRATED INSPECTION REPORT 05000373/2007005; 05000374/2007005

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	05000373; 05000374
License Nos:	NPF-11; NPF-18
Report No:	05000373/2007005; 05000374/2007005
Licensee:	Exelon Generation Company, LLC
Facility:	LaSalle County Station, Units 1 and 2
Location:	Marseilles, Illinois
Dates:	October 1, 2007, through December 31, 2007
Inspectors:	 D. Kimble, Senior Resident Inspector F. Ramírez, Resident Inspector M. Bielby, Senior Operations Licensing Examiner R. Jickling, Senior Emergency Preparedness Inspector D. Reeser, Operations Licensing Examiner S. Sheldon, Senior Reactor Inspector C. Zoia, Operations Licensing Examiner J. Yesinowski, Illinois Dept. of Emergency Management
Approved by:	Kenneth Riemer, Chief Branch 2 Division of Reactor Projects

SUMMARY OF	FINDINGS	1
REPORT DET	AILS	2
Summary of	Plant Status	2
1. REAC 1R01 1R04 1R05 1R11 1R12 1R13 1R15 1R19 1R21 1R22 1EP4	CTOR SAFETY Adverse Weather Protection (71111.01) Equipment Alignment (71111.04) Fire Protection (71111.05) Licensed Operator Requalification Program (71111.11) Maintenance Effectiveness (71111.12) Maintenance Risk Assessments and Emergent Work Control (71111.13) Operability Evaluations (71111.15) Post-Maintenance Testing (71111.19) Component Design Basis Inspection (71111.21) Surveillance Testing (71111.22)	2 3 4 9 9 10 11 11 14
4. OTHE 40A1 40A2 40A3 40A5 40A6	ER ACTIVITIES Performance Indicator Verification (71151) Identification and Resolution of Problems (71152) Event Follow-up (71153) Other Meetings	16 16 18 20 21 21
SUPPLEMENT	AL INFORMATION	1
KEY POINTS	S OF CONTACT	1
LIST OF ITE	MS OPENED, CLOSED, AND DISCUSSED	2
LIST OF DO	CUMENTS REVIEWED	3
LIST OF AC	RONYMS USED	11

TABLE OF CONTENTS

SUMMARY OF FINDINGS

IR 05000373/2007005, 05000374/2007005; 10/01/2007 - 12/31/2007; LaSalle County Station, Units 1 & 2; 2007005 Report.

The inspection was conducted by resident inspectors and regional inspectors. The report covers a three-month period of resident inspection, and announced baseline inspections in emergency preparedness, engineering, and of the licensed operator requalification program. One Green finding and an associated non-cited violation (NCV) were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using NRC Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green, or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector-Identified and Self-Revealed Findings

Cornerstone: Initiating Events

• SL-IV. The inspectors identified an NCV of 10 CFR 50.59, "Changes, Tests, and Experiments," which had very low safety significance. Specifically, the licensee failed to include non-seismically designed piping outside of the turbine building watertight enclosures as a potential source of internal flooding in a 50.59 evaluation. The licensee entered the issue into their corrective action program, performed an operability evaluation, and initiated corrective actions.

Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. With the assistance of the NRC Regional Senior Reactor Analyst (SRA), the inspectors determined from the initiating events evaluation in the phase one and phase three screenings that the underlying technical issue was of very low safety significance (Green). In accordance with the Enforcement Policy, the violation was therefore classified as a Severity Level IV violation. The inspectors determined that there was no cross cutting aspect to this issue. (Section 1R21)

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 September 30, 2007, power was reduced to approximately 75 percent to permit a control rod sequence adjustment and fuel channel distortion testing. Full power operation was resumed on September 30, 2007. On October 18, 2007, power coast down operations commenced due to the reactor's fuel reaching the end of core life for the cycle. On October 27, 2007, power was reduced to about 88 percent to again permit fuel channel distortion testing. During this testing, control rod 50-51 demonstrated a performance trend that necessitated its removal from service. The control rod was fully inserted in the core and rendered inoperable as a result. Maximum achievable reactor power was resumed on October 27, 2007, consistent with the unit's coast down operations. On November 7, 2007, licensee nuclear engineers determined that control rod 10-51 also was demonstrating an unfavorable performance trend due to fuel channel distortion, and it was fully inserted into the core and rendered inoperable as a result. On November 18, 2007, unit power was reduced to approximately 80 percent for additional fuel channel distortion testing; no additional control rod anomalous performance issues were identified and maximum achievable reactor power consistent with the unit's coast down operations was resumed later that same day. On December 15, 2007, unit power was reduced to approximately 66 percent for additional fuel channel distortion testing, removal of some feedwater heating to optimize unit operation in coast down, and various main turbine surveillances. Maximum achievable reactor power was resumed on December 16, 2007, consistent with the unit's coast down operations, and the unit remained operating at maximum achievable reactor power through the end of the inspection period.

Unit 2

The unit began the inspection period operating at full power. On December 8, 2007, unit power was reduced to approximately 68 percent for a rod sequence exchange and main turbine surveillance testing. Operation at full power was restored on December 9, 2007, and the unit remained operating 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)
 - .1 <u>Seasonal Weather Readiness Winter Weather Preparations</u>
 - 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:

- Condensate storage tank heating; and
- Miscellaneous heat tracing circuits.

These activities constituted one seasonal adverse weather sample as defined by Inspection Procedure (IP) 71111.01-05.

b. Findings

No findings of significance were identified.

- 1R04 Equipment Alignment (71111.04)
 - .1 Semiannual Complete System Alignment Verification
 - a. Inspection Scope

Due to the system's risk significance, the inspectors selected the Unit 1 and Unit 2 core standby cooling systems for a complete alignment verification. The inspectors conducted physical verifications of the mechanical and electrical equipment lineups, material condition, component labeling, component and equipment cooling, and verified supporting system operability to ensure that ancillary equipment or debris did not interfere with equipment operation. In addition, the inspectors reviewed outstanding maintenance work requests to ensure that any existing deficiencies did not affect the systems ability to perform its safety function.

This complete system alignment verification constituted one inspection sample as defined by IP 71111.04-05.

b. Findings

No findings of significance were identified.

.2 <u>Quarterly Partial System Alignment Verifications</u>

a. Inspection Scope

The inspectors performed a partial walkdown 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 and Unit 2 Division 3 emergency diesel generators (EDGs) following 24-hour test runs; and

• 0B diesel fire pump (DFP) with the 0A DFP out of service for a planned overhaul.

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

These partial equipment alignments constituted two inspection samples as defined by IP 71111.04.

b. Findings

No findings of significance were identified.

- 1R05 <u>Fire Protection</u> (71111.05)
 - .1 Quarterly Fire Protection Zone Inspections
 - a. Inspection Scope

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

- Fire Zone 2E, Unit 1 general area, 761' 6";
- Fire Zone 3G, Unit 2 general area, 710' 6"; and
- Fire Zone 4A, auxiliary building upper ventilation equipment floor, 815' 0".

The inspectors reviewed the control of transient combustibles and ignition sources, fire detection equipment, manual suppression capabilities, passive suppression capabilities, automatic suppression capabilities, and barriers to fire propagation.

These quarterly fire protection zone inspections constituted three inspection samples as defined by IP 71111.05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

- .1 Quarterly Resident Inspector Observation of Licensed Operator Training
 - 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 equipment and instrumentation failures, and the transient resulted in a complex loss of coolant accident. 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 both the simulator instructor staff evaluating the crew, and the training crew themselves.

This simulator training observation constituted one inspection sample as defined by IP 71111.11Q.

b. Findings

No findings of significance were identified.

.2 <u>Biennial Licensed Operator Regualification Training Program Inspection</u>

This biennial licensed operator requalification training program inspection constituted one inspection sample as defined by IP 71111.11B.

- a. Facility Operating History
- (1) Inspection Scope

The inspectors reviewed the plant's operating history from November 2005 through November 2007 to identify operating experience that was expected to be addressed by the licensed operator requalification training (LORT) program. The inspectors assessed whether the identified operating experience had been addressed by the facility licensee in accordance with the station's approved systems approach to training (SAT) program to satisfy the requirements of 10 CFR 55.59(c), "Requalification program requirements."

(2) Findings

No findings of significance were identified.

- b. Licensee Regualification Examinations
- (1) Inspection Scope

The inspectors performed a biennial inspection of the licensee's LORT test/examination program for compliance with the station's SAT program which would satisfy the requirements of 10 CFR 55.59(c)(4), "Evaluation." The reviewed operating examination material consisted of six operating tests, each containing two dynamic simulator scenarios and five to seven job performance measures (JPMs). The six written examinations reviewed each contained 30 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 written examination. The inspectors reviewed the methodology for developing the examinations, including the LORT program two-year sample plan, probabilistic risk assessment insights, previously identified operator performance deficiencies, and plant modifications.

(2) Findings

No findings of significance were identified.

c. Licensee Administration of Regualification Examinations

(1) Inspection Scope

The inspectors observed the administration of a requalification operating test to assess the licensee's effectiveness in conducting the test to ensure compliance with 10 CFR 55.59(c)(4), "Evaluation." The inspectors evaluated the performance of one crew in parallel with the facility evaluators during two dynamic simulator scenarios. The inspectors also evaluated various licensed crew members concurrently with facility evaluators during the administration of several JPMs. The inspectors assessed the facility evaluators' ability to determine adequate crew and individual performance using objective, measurable standards. 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 operating tests and written examinations. A specific evaluation of simulator performance was conducted and documented under Section 1R11.2.h, "Conformance with Simulator Requirements Specified in 10 CFR 55.46," of this report.

(2) Findings

No findings of significance were identified.

d. Examination Security

(1) 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, etc.) and integrity (e.g., predictability and bias, etc.) to verify compliance with 10 CFR 55.49, "Integrity of examinations and tests." 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, etc.) throughout the examination process.

(2) Findings

No findings of significance were identified.

e. Licensee Training Feedback System

(1) 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 reviewed the licensee's quality assurance oversight activities, including licensee training department self-assessment reports. The inspectors evaluated the licensee's ability to assess the effectiveness of its LORT program and their ability to implement appropriate corrective actions. This evaluation was performed to verify compliance with 10 CFR 55.59(c), "Requalification Program Requirements," and the licensee's SAT program.

(2) Findings

No findings of significance were identified.

f. Licensee Remedial Training Program

(1) Inspection Scope

The inspectors assessed the adequacy and effectiveness of the remedial training conducted since the previous biennial requalification examinations and the training from 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. This evaluation was performed in accordance with 10 CFR 55.59(c), "Requalification Program Requirements," and with respect to the licensee's SAT program.

(2) Findings

No findings of significance were identified.

g. Conformance With Operator License Conditions

(1) 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 assessment of compliance with 10 CFR 55.53(e) and (f). The inspectors reviewed the licensee's procedural guidance and 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). In addition, medical records for eight licensed operators were reviewed for compliance with 10 CFR 55.53(i).

(2) Findings

No findings of significance were identified.

h. Conformance with Simulator Requirements Specified in 10 CFR 55.46

(1) 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, malfunction tests, steady state tests, and core performance tests, etc.), simulator discrepancies, 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 IP 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).

(2) Findings

No findings of significance were identified.

- i. Annual Operating Test Results and Biennial Written Examination Results
- (1) Inspection Scope

The inspectors reviewed the pass/fail results of the 2007 individual biennial written examinations, and the annual operating tests (required to be given annually per 10 CFR 55.59(a)(2)) administered by the licensee during calendar year 2007. The overall written examination and operating test results were compared with the significance determination process in accordance with NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process."

(2) Findings

No findings of significance were identified.

1R12 <u>Maintenance Effectiveness</u> (71111.12)

.1 <u>Quarterly Maintenance Effectiveness Reviews</u>

a. Inspection Scope

The inspectors reviewed the licensee's handling of performance issues and the associated implementation of the Maintenance Rule of the Code of Federal Regulations (10 CFR 50.65) to evaluate maintenance effectiveness for the selected systems. The following systems 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 inspector identified issue or problem that potentially impacted system work practices, reliability, or common cause failures:

- Nuclear fuel performance issues; and
- Main steam line (MSL) radiation monitors/detectors.

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 maintenance effectiveness reviews constituted two inspection samples as defined by IP 71111.12.

b. Findings

No findings of significance were identified.

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

- .1 Quarterly Reviews of Maintenance Risk and Emergent Work
 - a. Inspection Scope

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

- Unit 1 and Unit 2 risk management during various YELLOW risk work windows;
- Unit 1 Division 3 battery cell replacement activities;
- Unit 2 drywell floor drain sump level recorder failure and emergent replacement activities;
- '0' Emergency Diesel Generator (EDG) YELLOW risk work window activities; and

Enclosure

• Emergent repairs associated with the 'B' VC/VE (control room ventilation/auxiliary equipment room ventilation) compressor unloader valves.

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.

The inspectors' reviews of maintenance risk and emergent work constituted five inspection samples as defined by IP 71111.13.

b. Findings

No findings of significance were identified.

- 1R15 Operability Evaluations (71111.15)
 - .1 Quarterly Review of Licensee Operability Issues and Evaluations
 - 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.

- Issue Report (IR) 692459: 2A EDG governor oil leak;
- OE 07-04, Revision 0: Evaluation of NRC-identified turbine building internal flooding issue from the service water return standpipe;
- Engineering Change (EC) 367964: Evaluation of NRC-identified vulnerability associated with handling irradiated fuel assemblies without installed fuel channels;
- IR 699172: Division 3 EDG Neutral Ground; and
- IR 708407: VC/VE unloader failures.

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 five inspection samples as defined by IP 71111.15.

b. Findings

No findings of significance were identified.

1R19 <u>Post-Maintenance Testing</u> (71111.19)

.1 Quarterly Review of Post-Maintenance Testing (PMT) Activities

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.

- 0A VC/VE PMT following a planned maintenance window; and
- Testing following replacement of the 0DG006 manual valve.

The inspectors verified by witnessing the test or reviewing the test data that PMT 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' reviews of these PMT activities constituted two inspection samples as defined by IP 71111.19.

b. Findings

No findings of significance were identified.

- 1R21 Component Design Basis Inspection (71111.21)
 - .1 Follow up on Unresolved Item (URI) 05000373/2007009-05; 05000374/2007009-05
 - a. Inspection Scope

The inspectors followed up on an unresolved item (URI 05000373/2007009-05; 05000374/2007009-05) that was opened during the component design basis inspection (CDBI). Specific documents reviewed are listed in the attachment.

The inspectors' follow-up activities were considered an integral part of the original CDBI inspection samples, as documented in NRC Inspection Report 05000373/2007009; 05000374/2007009 (ADAMS Accession No. ML073130611), as such the activities documented herein did not constitute any additional inspection samples.

b. Findings

Introduction

The inspectors identified an NCV of 10 CFR 50.59, "Changes, Tests, and Experiments," which had very low safety significance (SL-IV). Specifically, the licensee failed to include non-seismically designed piping outside of the turbine building watertight enclosures as a potential source of internal flooding in a 50.59 evaluation. The original licensing basis was that all gravity fed flood sources were installed within watertight barriers. In 1995, the licensee determined that several non-safety related piping sections in the turbine building had the potential of allowing a gravity fed internal flood from the lake. The licensee performed evaluations of these piping sections and determined that their failure was not credible. Based on these evaluations, the licensee revised the UFSAR without prior NRC approval under 10 CFR 50.59. However, these evaluations did not account for some non-seismically designed piping sections.

Description

An unresolved item was opened during the CDBI related to the licensee's exclusion of potential internal flood sources from a 10 CFR 50.59 evaluation. Specifically, the inspectors reviewed documentation associated with the "crack exclusion" of sections of moderate energy piping in the turbine building. An operability assessment process form (PIF 373-201-95-00260), dated March 21, 1995, addressed a non-conformance with UFSAR Section 3.4.1.4.a, which stated that gravity flooding due to pipe rupture in the turbine building would be confined to watertight enclosures. Walk downs had identified several sections of non-safety related, non-seismically designed piping that were not within watertight enclosures. A gravity fed flood from the lake could potentially result in flooding of the turbine building up to the maximum lake level of 701 feet and communicate with vital areas in the auxiliary building and reactor building, affecting multiple trains of safety related equipment required for safe shutdown.

The licensee performed an evaluation to justify continued operation of the units. This evaluation determined that pipe cracks need not be postulated for any piping for which the normal operating pressure is less than 10 psig, based on Appendix J of the UFSAR (Appendix J defined moderate energy piping as being greater than 10 psig). The evaluation also determined that pipe cracks need not be postulated for any moderate energy piping that meet the pipe stress criteria of Standard Review Plan (SRP) 3.6.2. An associated 10 CFR 50.59 evaluation, dated March 21, 1995, determined that no unreviewed safety question (USQ) existed.

Subsequently, a UFSAR change request (LU1999-032), dated May 26, 1999 was issued to revise the UFSAR to include both the 10 psig and SRP 3.6.2 "crack exclusion" criteria. This change also included a 10 CFR 50.59 evaluation (L99-126), dated May 20, 1999, which concluded that no USQ existed. The inspectors noted that both these 10 CFR 50.59 evaluations stated that if a pipe crack was to occur, sufficient time would be available to isolate the flood source.

The inspectors questioned whether these 10 CFR 50.59 evaluations had appropriately concluded that the licensing basis changes did not require prior NRC approval. SRP 3.6.2 stated that through-wall cracks need to be postulated for piping designed to non-seismic standards. Additionally, there is no lower limit on internal pressure defined in the SRP. The facility's original license was based on a determination that potential gravity flooding due to failure of non-safety related, non-seismically designed piping in the turbine building would be confined to watertight enclosures, and that safety related equipment was located above the maximum water level. The inspectors were concerned that the identification of non-seismically designed piping outside of the watertight enclosures created the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report. Flooding from a potential rupture of this piping could affect safety-related equipment that is located below normal lake level. Therefore, the inspectors determined that the licensee inappropriately concluded that the UFSAR did not require prior NRC approval.

In response to NRC questions, the licensee initiated IR 693116 and corresponding Operability Evaluation 07-004.

<u>Analysis</u>

The inspectors determined that failure to include non-seismically designed piping outside of the watertight enclosures as a potential source of internal flooding in a 50.59 evaluation was a performance deficiency.

Because violations of 10 CFR 50.59 are considered to be violations that potentially impede or impact the regulatory process, they are dispositioned under the traditional enforcement process instead of the SDP. However, if possible, the underlying technical issue is evaluated under the SDP to determine the severity of the violation. In this case, the licensee failed to perform adequate evaluations in accordance with 10 CFR 50.59.

The finding was determined to be more than minor because it directly impacted the objective of the initiating events cornerstone of reactor safety to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. With the assistance of the NRC Regional SRA, the inspectors determined from the initiating events evaluation in the phase one and phase three screenings that the underlying technical issue was of very low safety significance (Green). In accordance with the Enforcement Policy, the violation was therefore classified as a Severity Level IV violation. The inspectors determined that there was no cross cutting aspect to this issue.

Enforcement

Title 10 CFR 50.59(a)(2) states, in part, that a proposed change, test, or experiment shall be deemed to involve a USQ if a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report may be created. Contrary to the above, on March 21, 1995, the licensee approved a 10 CFR 50.59 evaluation that concluded no USQ existed due to potential gravity fed flood sources in the turbine building. This evaluation was inadequate in that it did not include some non-safety related, non-seismically designed piping outside of the watertight enclosures as a

potential source of internal flooding in a 50.59 evaluation. In accordance with the Enforcement Policy, the violation was classified as a Severity Level IV violation because the underlying technical issue was of very low risk significance. Because this violation was captured in the licensee's corrective action program in IR 693116, this violation is being treated as an NCV consistent with Section VI.A of the NRC Enforcement Policy. (NCV 05000373/2007005-01; 05000374/2007005-01)

1R22 <u>Surveillance Testing</u> (71111.22)

.1 General Surveillance Tests

a. Inspection Scope

The inspectors selected the following general 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:

- LOS-DG-R1B: 1B EDG 24-hour loaded run test; and
- LOS-RD-SR7: Fuel channel distortion testing/monitoring.

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.

These general surveillance testing activities by the inspectors constituted two inspection samples as defined by IP 71111.22.

b. Findings

No findings of significance were identified.

.2 Inservice Testing (IST) Required by the American Society of Mechanical Engineers Operations and Maintenance Code

a. Inspection Scope

Based on the relatively high risk significance of the system, the inspectors selected the following Code valve IST activity for review:

• IST of the 2E51-F019 reactor core isolation cooling (RCIC) system minimum flow line containment isolation valve.

The inspectors observed the performance of the test, including reviews for preconditioning, applicability of acceptance criteria, test equipment calibration and control, procedural use, documentation of test data, Technical Specification applicability,

Enclosure

compliance with 10 CFR 50.55a, "Codes and Standards," impact of testing relative to performance indicator reporting, and evaluation of the test data.

The review of this IST quarterly surveillance constituted one inspection sample as defined by IP 71111.22.

b. Findings

No findings of significance were identified.

.3 Reactor Coolant System (RCS) Leak Detection System Surveillance Testing

a. Inspection Scope

The following RCS leak detection system testing activity was selected by the inspectors for review:

• Unit 1 and Unit 2 drywell floor drain sump RCS leak detection system shiftly surveillance tests.

The inspectors observed the performance of the testing activity, including reviews for preconditioning, integration of the testing activities with other plant work, applicability of acceptance criteria, test equipment calibration and control, procedural use, documentation of test data, Technical Specification applicability, and evaluation of test data.

The review of these RCS leak detection system shiftly tests constituted one inspection sample as defined by IP 71111.22.

b. Findings

No findings of significance were identified.

1EP4 <u>Emergency Action Level and Emergency Plan Changes</u> (71114.04)

- .1 <u>Routine/Annual Inspector Review of Emergency Action Level and Emergency Plan</u> <u>Changes</u>
 - a. Inspection Scope

The inspectors performed a screening review of Revisions 21, 22, 23, 24, and 25 of the LaSalle County Station Annex to the Standardized Emergency Plan to determine whether changes identified in Revisions 21, 22, 23, 24, and 25 decreased the effectiveness of the licensee's emergency planning for the LaSalle County Station. This review 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.

This review of Emergency Action Level and Emergency Plan Changes constituted one inspection sample as defined by IP 71114.04.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

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

- .1 Initiating Events
- a. Inspection Scope

The inspectors reviewed Licensee Event Reports (LERs), licensee data reported to the NRC, plant logs, and NRC inspection reports to verify the following performance indicators submitted by the licensee during the Fourth Quarter of 2007:

- Unplanned Scrams per 7000 Critical Hours, Units 1 and 2;
- Scrams with Complications, Units 1 and 2; and
- Unplanned Power Changes per 7000 Critical Hours, Units 1 and 2.

The inspectors verified that the licensee accurately reported performance as defined by the applicable revision of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline."

These performance indicator reviews constituted six inspection samples as defined by IP 71151.

b. Findings

No findings of significance were identified.

- .2 <u>Mitigating Systems</u>
- a. Inspection Scope

The inspectors reviewed LERs, licensee data reported to the NRC, plant logs, and NRC inspection reports to verify the following performance indicators submitted by the licensee during the Fourth Quarter of 2007:

- Mitigation Systems Performance Indicator (MSPI) Alternating Current (AC) Power System, Units 1 and 2;
- MSPI HPCS, Units 1 and 2;

- MSPI RCIC System, Units 1 and 2;
- MSPI Residual Heat Removal (RHR) System, Units 1 and 2;
- MSPI Support Cooling Water System, Units 1 and 2; and
- Safety System Functional Failures, Units 1 and 2.

The inspectors verified that the licensee accurately reported performance as defined by the applicable revision of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline."

These performance indicator reviews constituted twelve inspection samples as defined by IP 71151.

b. Findings

No findings of significance were identified.

- .3 Barrier Integrity
- a. Inspection Scope

The inspectors reviewed LERs, licensee data reported to the NRC, plant logs, and NRC inspection reports to verify the following performance indicators submitted by the licensee during the Fourth Quarter of 2007:

• Reactor Coolant System Leakage, Units 1 and 2.

The inspectors verified that the licensee accurately reported performance as defined by the applicable revision of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline."

These performance indicator reviews constituted two inspection samples as defined by IP 71151.

b. Findings

No findings of significance were identified.

- .4 Data Submission Issue
- a. Inspection Scope

The inspectors performed a review of the performance indicator data submitted by the licensee during the Fourth Quarter 2007 for any obvious inconsistencies prior to its public release in accordance with IMC 0608, "Performance Indicator Program."

This review was performed as part of the inspectors' normal plant status activities and, as such, did not constitute a separate inspection sample.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

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

.1 <u>Routine Review of Identification and Resolution of Problems</u>

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 corrective action program (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 1 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 <u>Semi-Annual Trend Review</u>

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 six month period of July 2007 through December 2007, 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 by the inspectors constituted one inspection sample as defined by IP 71152.

b. Findings and Issues.

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

.4 <u>Selected Issue Follow-up Inspection: Annual Review of Operator Workarounds</u>

Introduction

The inspectors selected operator workarounds for a more in-depth review in accordance with IP requirements.

This annual review of operator workarounds constituted one inspection sample as defined by IP 71152.

- a. Effectiveness of Problem Identification
- (1) Inspection Scope

The inspectors reviewed plant logs, issue reports, and work requests to verify that the licensee's identification of operator workarounds 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.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The inspectors reviewed plant logs, issue reports, and work requests associated with existing operator workarounds, operator challenges, and control room deficiencies. The nature and significance of both individual issues and groups of issues in aggregate with respect to safety, risk, and licensee corrective action procedural requirements were considered. Additionally, the inspectors assessed 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) Findings and Issues

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

- c. Effectiveness of Corrective Actions
- (1) Inspection Scope

The inspectors reviewed issue reports and work requests associated with existing operator workarounds, operator challenges, and control room deficiencies to determine if the licensee's CAP addressed generic implications. Additionally, the inspectors verified that established corrective actions by the licensee were appropriately focused to correct the problem.

(2) Findings and Issues

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

4OA3 Event Follow-up (71153)

Cornerstone: Emergency Preparedness

.1 <u>Licensee Compensatory Actions for Unit 1 Emergency Response Data System (ERDS)</u> <u>Failures</u>

a. Inspection Scope

On November 21, 2007, inspectors followed up on the licensee's compensatory actions for the loss of the Unit 1 ERDS. The inspectors evaluated the licensee actions, and confirmed that the licensee properly addressed event reportability as required by 10 CFR 50.72 and 50.73.

Enclosure

The inspectors' response to and review of this event constituted a single inspection sample as defined by IP 71153.

b. Findings

No findings of significance were identified.

4OA5 Other

Cornerstone: Initiating Events

.1 (Closed) URI 05000373/2007009-05; 05000374/2007009-05: Exclusion of Potential Internal Flood Sources Under 10 CFR 50.59

An unresolved item was opened during the 2007 CDBI (NRC Inspection Report 05000373/2007009; 05000374/2007009 - ADAMS Accession No. ML073130611) regarding the licensee's failure to perform an adequate evaluation in accordance with 10 CFR 50.59. Based on the information discussed in section 1R21 of this report, an NCV of the requirements promulgated in 10 CFR 50.59 was identified. This URI, therefore, is closed.

The inspectors' follow-up activities were considered an integral part of the original CDBI inspection samples, and as such the closure of this URI did not constitute any additional inspection samples.

40A6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to the Site Vice President, Mr. D. Enright, and other members of licensee management on January 10, 2008. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. Several documents associated with the licensee's ongoing fuel channel distortion monitoring program were identified. The inspectors stated that these documents were being controlled accordingly.

.2 Interim Exit Meetings

Interim exits were conducted for:

- The results of the licensed operator requalification training program inspection with the Site Vice President, Mr. D. Enright, on November 30, 2007;
- The licensed operator requalification training biennial written examination and annual operating test results with the Licensed Operator Requalification Lead Instructor, Mr. G. Beale, via telephone on December 7, 2007;
- The annual review of emergency action level and emergency plan changes with the licensee's Emergency Preparedness Manager, Ms. K. Rusley, via telephone on December 18, 2007; and

• The closure of CDBI URI 05000373/2007009-05; 05000374/2007009-05 as an NCV with the Plant Manager, Mr. D. Rhoades, and other members of the licensee's staff via telephone on December 19, 2007.

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
- R. Chrzanowski, Chemistry Manager
- T. Connor, Maintenance Director
- R. Ebright, Site Training Director
- B. Ginter, Engineering Programs Manager
- F. Gogliotti, System Engineering Manager
- C. Howard, Radiation Protection Manager
- K. Ihnen, Nuclear Oversight Manager
- S. Marik, Operations Director
- J. Rommel, Design Engineering Manager
- K. Rusley, Emergency Preparedness Manager
- T. Simpkin, Regulatory Assurance Manager
- H. Vinyard, Shift Operations Superintendent
- C. Wilson, Station Security Manager

Nuclear Regulatory Commission

K. Riemer, Chief, Reactor Projects Branch 2

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>

05000373/2007005-01; 05000374/2007005-01	NCV	Failure to Analyze Potential Internal Flood Sources. (Section 1R21)
Closed		
05000373/2007005-01; 05000374/2007005-01	NCV	Failure to Analyze Potential Internal Flood Sources. (Section 1R21)
05000373/2007009-05; 05000374/2007009-05	URI	Exclusion of Potential Internal Flood Sources Under 10 CFR 50.59. (Section 4OA5)

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

Issue Reports:

- 687291; LOS-ZZ-A2 and Equipment Abandoned in Place; 10/20/2007

Procedures:

- LOS-ZZ-A2; Preparation for Winter/Summer Operation; Revision 33
- WC-AA-107; Seasonal Readiness; Revision 4
- LES-GM-134; Annual Pre-Winter Cleaning and Functional Test of Electric Room Heaters; Revision 7
- LaSalle Winter Readiness Functional Area Self-Assessment; 10/19/2007

1R04 Equipment Alignment

Issue Reports:

- 699921; Packing Gland Bolt Pin Not Fully Engaged; 11/15/2007
- 699299; NRC Id'd Wrong Location for New 2DG117 Valve in LOP-DG-09M; 11/12/2007
- 582433; Minimal Leakage on 1 DG Cooler at Flange; 1/23/2007
- 427612; 1E12-C003 Seal Leak and Corroded Bedplate; 11/25/2005

Procedures:

- LOP-FP-01M; Unit 0 Fire Protection System Mechanical Checklist; Revision 17
- LOP-FP-02M; Unit 1 Fire Protection System Mechanical Checklist; Revision 16
- LOP-FP-03M; Unit 2 Fire Protection System Mechanical Checklist; Revision 14
- LOP-DG-02M; Unit 1 HPCS Diesel Generator Mechanical Checklist; Revision 9
- LOP-DG-02E; Unit 1 1B Diesel Generator Electrical Checklist; Revision 9
- LOP-DG-05M; Unit 2 B Diesel Generator Mechanical Checklist; Revision 7
- LOP-DG-05E; Unit 2 B Diesel Generator Electrical Checklist; Revision 12
- LOP-RHWS-1BM; Unit 1 B RHR Service Water System Mechanical Checklist; Revision 4
- LOP-DG-08M; Unit 0 Diesel Generator Cooling System Mechanical Checklist; Revision 20
- LOP-RHWS-2AM; Unit 2 A RHR Service Water System Mechanical Checklist; Revision 1
- LOP-DG-10M; Unit 2 B Diesel Generator Cooling System Mechanical Checklist; Revision 11
- LOP-DG-07M; Unit 1 B Diesel Generator Cooling System Mechanical Checklist; Revision 12
- LOP-DG-06M; Unit 1 A Diesel Generator Cooling System Mechanical Checklist; Revision 13
- LOP-DG-09M; Unit 2 A Diesel Generator Cooling System Mechanical Checklist; Revision 10
- LOP-RHWS-1AM; Unit 1 A RHR Service Water System Mechanical Checklist; Revision 1
- LOP-RHWS-2BM; Init 2 B RHR Service Water system Mechanical Checklist; Revision

1R05 Fire Protection

Miscellaneous Fire Protection Documents: - LaSalle County Station – Fire Protection Report

Issue Reports:

- 689099; NRC Identified 7th Dry Chem in FHZ 4A Figure not in plant; 10/24/2007

1R11 Licensed Operator Regualification Program

Issue Reports:

- Condition Reports Related to LORT - Various; 2006 - 2007

Miscellaneous Documents:

- LaSalle County Generating Station Assessment of Margin of Operator Actions Based on Time Available; 2007
- LaSalle County Generating Station Licensed Operator Accelerated Requal Plan Various; 2007
- LaSalle County Generating Station Licensed Operator (3 RO; 4 SRO; 1 SRO-L) Medical Records
- LaSalle County Generating Station LORT Annual JPM Tests Various; 2006 2007
- LaSalle County Generating Station LORT Annual Dynamic Scenario Tests Various; 2006 2007
- LaSalle County Generating Station LORT Annual Exam Sample Plant; 2007
- LaSalle County Generating Station LORT Annual Written Examinations Various; 2006 2007
- LaSalle County Generating Station LORT Attendance Records; 2006 2007
- LaSalle County Generating Station LORT Long Range (24-Month) Training Plan; 2006 -2007
- LaSalle County Generating Station LORT Individual Exam Scores Various; 2006 2007
- LaSalle County Generating Station LORT Remediation Records; 2006 2007
- LaSalle County Generating Station LORT Simulator Test Procedure and Results Various; 2005-2007
- LaSalle County Generating Station Nuclear Oversight Monthly Issues Various; 2006
- LaSalle County Generating Station Open/Closed Simulator Work Requests Report; November 2006 – November 2007
- LaSalle County Generating Station Operations Reports (Quarterly); 2006 2007
- LaSalle Unit Differences Book (Unit 1/Unit 2; Simulator/Unit 1 and Unit 2 Control Room); December 1, 2006
- Living Accreditation Self-Evaluation Reports Various; 2006 2007
- LORT Curriculum Review Committee Meeting Minutes (Quarterly) Various; 2006 2007
- NOSPA-Corp; Corporate Nuclear Oversight Performance Assessment Report; 2006
- NOSPA-LS; LaSalle Station Nuclear Oversight (Quarterly) Reports Various; 2006 2007
- Simulator Review Board Minutes Various; 2006 2007
- Ten LaSalle County Generating Station Licensed Operator Reactivations (RO; SRO; SRO-L) 2006 2007

Procedures:

- LS-AA-126-1001; LORT NRC Pre 71111.11 Inspection Focused Area Self-Assessment Report; July 26, 2007

- OP-AA-105-101; Administrative Process for NRC License and Medical Requirements; Revision 11
- OP-AA-105-102; Exelon Nuclear; NRC Active License Maintenance; Revision 8
- OP-AA-105-102, Attachment 1; Active License Tracking Log; Revision 8
- OP-AA-105-102, Attachment 2; Reactivation of License Log; Revision 8
- OP-LA-101-111-1002; LaSalle Operations Philosophy Handbook; Revision 15
- TQ-AA-106-0113; Simulator Demonstration Examination Individual Competency Evaluation Form; Revision 4
- TQ-AA-106-0114; Simulator Demonstration Examination Crew Competency Evaluation Form; Revision 3
- TQ-AA-106-0115; Simulator Demonstration Examination Shift Manager Competency Evaluation Form; Revision 4
- TQ-AA-106-0304; Exelon Nuclear, Licensed Operator Requal Training Exam Development Job Aid, Revision 7
- TQ-AA-106-0304, Attachment 1; Exelon Nuclear 2006 -2007 LORT Program Classroom Summary; Revision 7
- TQ-AA-106-0304, Attachment 2; Exelon Nuclear 2006 2007 LORT Program Simulator Summary; Revision 7
- TQ-AA-106-0304, Attachment 3; Exelon Nuclear 2006 2007 LORT Category Subject Hours Distribution; Revision 7
- TQ-AA-106-0304, Attachment 4; Exelon Nuclear 2006 2007 LORT Category Distribution; Revision 7
- TQ-AA-106-0304, Attachment 5; Exelon Nuclear LORT Examination Question Distribution; Revision 7
- TQ-AA-106-0304, Attachment 12; Exelon Nuclear Scenario Attributes; Revision 7
- TQ-AA-201-0113; LaSalle Station Training Department Simulator Security Isolation and Restoration; Revision 8
- TQ-AA-210-4101; Remedial Training Notification and Action on Failure; Revision 1
- TQ-AA-210-4102; Performance Review Committee Data Sheet; Revision 2
- TQ-AA-210-5305; Training Effectiveness Evaluation Worksheet; Revision 2
- TQ-AA-301-0105; Simulator Review Board Cover Sheet Various 2007 SRBs; Revision 2
- TQ-AA-303; Controlling Simulator Core Updates and Thermal-Hydraulic Model Updates; Revision 5
- TQ-AA-304; Simulator Modifications and Projects Planning; Revision 0
- TQ-AA-1013; Simulator Coordinator/Simulator Review Board/Simulator Testing Review Board Member Orientation Guideline; Revision 1

Dynamic Simulator Scenario Guide:

- ESG 12; Revision 2; 9/18/2007

1R12 Maintenance Effectiveness

Issue Reports:

- 712213; Results of Channel Distortion Testing Unit 1; 12/16/2007
- 704257; L2 11/27/2007 LOS-RD-SR7 Channel Distortion Testing Results; 11/27/2007
- 701077; Channel Distortion Testing Results for Unit 1; 11/18/2007
- 695829; Rod 10-51 Declared Inoperable; 11/7/2007
- 690247; Control Rod Fails Scram Speed; 10/27/2007
- 690330; Unit 1 October 27, 2007, Channel Distortion Testing Results; 10/27/2007

- 667185; Unit 1 Control Rod 58-31 Failed Friction Settle Testing; 9/2/2007
- 682273; Unit 2 LOS-RD-SR7 Channel Distortion Testing Results; 10/9/2007
- 676813; Unit 1 September 27, 2007, Channel Distortion Testing Results; 9/28/2007
- 669313; Unit 2 Control Rod 58-27 Signs of Channel Distortion; 9/9/2007
- 667195; LOS-RD-SR7 Results for Unit 1; 9/2/2007
- 667335; Control Rod 10-51 Anomalous Performance; 9/3/2007
- 667344; Control Rod 10-51 Slow to Withdraw Following Scram Time Test; 9/3/2007
- 667433; Control Rod 10-51; 9/3/2007
- 637358; New Fuel Leaker in Unit 1; 6/5/2007
- 689758; Main Steam Line Radiation High Alarms in MCR; 10/26/2007
- 690186; Unit 1 Main Steam Line High Radiation Alarm; 10/26/2007
- 690552; received Spurious MSL Rad Alarm on U1; 10/28/2007
- 690828; U1 Main Steam Line high Rad Alarm; 10/29/2007
- 691893; Unexpected U-1 A MSL Radiation High Alarm; 10/20/2007

Procedures:

- LOS-RD-SR7; Channel Interference Monitoring; Revision 12
- LOR-1H13-P601-F402; MSL A/B Radiation Monitor Downscale/INOP/HI ; Revision 2
- LOR-1H13-P601-F401; Leak Detection Pipe Tunnel Main Steam Line Area ; Revision 2

Issue Resolution Documents:

- 681731-02; Determination of Fuel Management Strategy; 10/16/2007

Engineering Analyses:

- EC 368143; Evaluation of Scram Timing As Part of LaSalle Channel Distortion Monitoring; Revision 0

Miscellaneous Documents:

- FAB07-2451; Transmittal of Control Rod Friction Surveillance Recommendations Interim Supplemental Surveillance for AREVA Fuel Channels in Core Peripheral Locations; 9/14/2007; [PROPRIETARY]
- NF0700097; LaSalle Unit 1 Fuel Channel Bow Assessment and Monitoring Plan; Revision 1; [PROPRIETARY]
- NF0700098; LaSalle Unit 2 Fuel Channel Bow Assessment and Monitoring Plan; Revision 1; [PROPRIETARY]
- Unavailability and Reliability Report for Main Steam Line Radiation Monitors; November 2007

1R13 Maintenance Risk Assessments and Emergent Work Control

Issue Reports:

- 709086; 0B VE Compressor Failed to Restart Following Pumpdown; 12/8/2007
- 708617; FME in the System "B" VE 0VE04CB; 12/7/2007
- 695614; 2UR-RF002 Display Went Blank; 11/7/2007
- 709276;)VE09YB Damper Failure; 12/9/2007

Work Orders:

- 01053553; Replace Unit 1 Division 3 Battery Cell 53; 10/18/2007

Miscellaneous Documents:

- LaSalle County Station, Updated Final Safety Analysis Report Section 5,4: Component and Subsystem Design; Revision 14
- LaSalle System Description Residual Heat Removal; Revision 7

1R15 Operability Evaluations

Issue Reports:

- 686534; NRC-IDENTIFIED Analysis May Not Consider Impact of Unchanneled Fuel; 10/18/2007
- 692459; Oil Leak From 2A EDG Governor Booster Servomotor; 10/31/2007
- 693116; CDBI Unresolved Issue Determined to Be 10 CFR 50.59 Violation; 11/1/2007
- 699172; Div. 3 DG Neutral Ground Resistor Location Not Per Design; 11/14/2007
- 697048; CDBI- Div 3 DG Grounding Resistor Housing is not Ventilated; 11/09/2007
- 708407; B VC/VE Observations; 12/6/2007

Engineering Analyses:

- EC 367964; LaSalle Fuel Handling Accident in Spent Fuel Pool Question to Support Fuel Moves; Revision 0
- OE 07-004; Turbine Building Internal Flooding From Service Water; Revision 0

1R19 Post-Maintenance Testing

Procedures:

- LOP-VC-01; Control Room HVAC Operation; Revision 30
- LOP-VE-01; Auxiliary Electric Equipment Room HVAC Operation; Revision 40
- ER-AA-335-015; VT-2 Visual Examination ; Revision 6
- ER-AA-335-018; Detailed, General, VT-1, VT-1C, VT-3 and VT-3C, Visual Examination of ASME Class MC and CC Containment Surfaces and Components ; Revision 4

Work Orders:

- 01002370-01; Form NIS-2 Owner's Report for Repair/Replacement Activity for Valve 0DG006; 10/26/2007
- 01002370-01; Nondestructive Examination (NDE) Reports Associated with 0DG006 Valve Replacement; 10/17/2007
- 00930417-08 ; VT-2 Pressure Test Report Associated with 0DG006 Valve Replacement ; 10/23/2007

1R21 Component Design Basis Inspection

Issue Reports:

- 676923; CDBI NRC Identified Flooding Methodology as URI; 9/28/2007
- 693116; CDBI Unresolved Issue Determined to be 50.59 Violation; 11/1/2007

Engineering Analyses:

- CHRON 307384; Evaluation of Turbine Building Flood; 3/21/1995
- OE 07-004; Turbine Building Internal Flooding From Service Water; Revision 0
- LU1999-032; UFSAR Change Request; 3/30/2000

Licensee Event Report:

- 95-009; Flood Protection Features Not as Described in the UFSAR Due to Construction Deficiencies; 3/15/1995

NUREG:

- 0519; Safety Evaluation Report Related to the Operation of LaSalle County Station Units 1 and 2; March 1981

1R22 Surveillance Testing

Issue Reports:

- 712213; Results of Channel Distortion Testing Unit 1; 12/16/2007
- 704257; L2 11/27/2007 LOS-RD-SR7 Channel Distortion Testing Results; 11/27/2007
- 701077; Channel Distortion Testing Results for Unit 1; 11/18/2007
- 695829; Rod 10-51 Declared Inoperable; 11/7/2007
- 690247; Control Rod Fails Scram Speed; 10/27/2007
- 690330; Unit 1 October 27, 2007, Channel Distortion Testing Results; 10/27/2007
- 667185; Unit 1 Control Rod 58-31 Failed Friction Settle Testing; 9/2/2007
- 682273; Unit 2 LOS-RD-SR7 Channel Distortion Testing Results; 10/9/2007
- 676813; Unit 1 September 27, 2007, Channel Distortion Testing Results; 9/28/2007
- 669313; Unit 2 Control Rod 58-27 Signs of Channel Distortion; 9/9/2007
- 667195; LOS-RD-SR7 Results for Unit 1; 9/2/2007
- 667335; Control Rod 10-51 Anomalous Performance; 9/3/2007
- 667344; Control Rod 10-51 Slow to Withdraw Following Scram Time Test; 9/3/2007
- 667433; Control Rod 10-51; 9/3/2007
- 244483; Received 1B DG Engine Trouble Alarm in MCR; 8/15/2004
- 696832; NRC Preconditioning Question on 1-16-07 2E51-F019 Cycling; 11/9/2007

Procedures:

- LOS-RD-SR7; Channel Interference Monitoring; Revision 12
- LOS-AA-S101; Unit 1 Shiftly Surveillance; Revision 46
- LOS-AA-S201; Unit 2 Shiftly Surveillance; Revision 51
- LOS-DG-R1B; 1B Diesel Generator Twenty-Four Hour Run Surveillance; Revision 9
- LOS-RI-Q1; RCIC Valve Inservice Test; Revision 42
- ER-AA-302-1006; Generic Letter 96-05 Program Motor-Operated Valve Maintenance and Testing Guidelines; Revision 4

Miscellaneous Documents:

- LaSalle – Inservice Testing Bases Document; RCIC Turbine Lube Oil Cooler Inlet Valve; 11/2007

1EP4 Emergency Action Level and Emergency Plan Changes

Miscellaneous Documents:

- LaSalle County Station Annex of the Exelon Standardized Emergency Plan; Revisions 21, 22, 23, 24, and 25

4OA1 Performance Indicator Verification

Issue Reports:

- 637358; New Fuel Leaker in Unit 1; 6/5/2007
- 582401; 1B RHR Low Pressure Following LOS-RH-Q1 on 1A RHR; 1/23/2007
- 579445; Review of MSPI Data, IAW NER NC-06-017; 1/16/2007
- 526166; NOS Id LaSalle MSPI Basis Document RCIC Data Discrepancies; 8/31/2006
- 579521; MSPI Data Issues/Extent of Condition Results; 1/16/2007
- 598883; U-2 Division 1 ECCS Unplanned Initiation; 3/3/2007
- 600048; Required Recorded Data not Obtained During LOS-DG-211; 3/6/2007
- 578868; MSPI Data Issues/Extent of Condition Results; 1/13/2007

Procedures:

- LS-AA-2030; Monthly Data Elements for NRC Unplanned Power Changes Per 7000 Critical Hours; Revision 5; [Data submitted from October 2005 through October 2007]
- LS-AA-2100; Monthly Data Elements for NRC Reactor Coolant System Leakage; Revision 5; [Data submitted from October 2005 through October 2007]

Station Logs:

- Shift Manager; October 2005 through October 2007
- Unit 1; October 2005 through October 2007
- Unit 2; October 2005 through October 2007

Miscellaneous Documents:

- Mitigating System Performance Index Basis Document; LaSalle County Nuclear Generating Station; Revision 5
- LSCS MSPI and WANO Data Report Core Standby Cooling Systems; October 2006 through September 2007
- LSCS MSPI and WANO Data Report Emergency AC Power; October 2006 through September 2007
- LSCS MSPI and WANO Data Report Residual Heat Removal System; October 2006 through September 2007
- LSCS MSPI and WANO Data Report High Pressure Core Spray; October 2006 through September 2007
- LSCS MSPI and WANO Data Report Reactor Core Isolation Cooling; October 2006 through September 2007
- System Health Overview Report; High Pressure Core Spray; September 2007
- MSPI Derivation Report; Unit 2 High Pressure Injection System; May 2007
- MSPI Derivation Report; Unit 1 High Pressure Injection System; December 2006
- MSPI Derivation Report; Unit 1 Residual Heat Removal System; September 2007
- MSPI Derivation Report; Unit 2 Heat Removal System; January 2007
- MSPI Derivation Report; Unit 1 Heat Removal System; October 2006
- MSPI Derivation Report; Unit 2 Cooling Water System; September 2007
- MSPI Derivation Report; Unit 1 Cooling Water System; November 2006

4OA2 Identification and Resolution of Problems

Miscellaneous Documents:

- LaSalle County Station Shift Operations Superintendent's Concerns List/Adverse Condition Monitoring Issues; December 2007

4OA3 Event Follow-up

Issue Reports:

- 702418; Quarterly Emergency Response Data System Failed on Unit 1; 11/21/2007

LIST OF ACRONYMS USED

AC	Alternating Current
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CDBI	Component Design Basis Inspection
CFR	Code of Federal Regulations
DG	Diesel Generator
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
ERDS	Emergency Response Data System
HPCS	High Pressure Core Spray
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Issue Report
JPM	Job Performance Measure
LER	Licensee Event Report
LORT	Licensed Operator Requalification Training
MSL	Main Steam Line
MSPI	Mitigation Systems Performance Indicator
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
PMT	Post-Maintenance Testing
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
SAT	Systems Approach to Training
SDP	Significance Determination Process
SRA	Senior Reactor Analyst
SRP	Standard Review Plan
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
USQ	Unreviewed Safety Question