

October 12, 2005

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
FIRE PROTECTION TRIENNIAL BASELINE INSPECTION
INSPECTION REPORT 05000373/2005006(DRS); 05000374/2005006(DRS)

Dear Mr. Crane:

On September 2, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your LaSalle County Station, Units 1 and 2. The enclosed report documents the inspection findings which were discussed on September 2, 2005, at the LaSalle County Station, with Ms. Susan Landahl and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and to 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, which involved a violation of NRC requirements, was identified. However, because the violation was of very low safety significance and because the issue was entered into the licensee's corrective action program, the NRC is treating this finding 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 a Non-Cited Violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the LaSalle County Station facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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/

Julio F. Lara, Chief
Engineering Branch 3
Division of Reactor Safety

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

Enclosure: Inspection Report 05000373/2005006(DRS); 05000374/2005006(DRS)
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

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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/

Julio F. Lara, Chief
Engineering Branch 3
Division of Reactor Safety

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

Enclosure: Inspection Report 05000373/2005006(DRS); 05000374/2005006(DRS)
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

DOCUMENT NAME: E:\Filenet\ML052910482.wpd

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

| | | | | | |
|--------|-------------|---|----------|----------|------|
| OFFICE | RIII | E | RIII | RIII | RIII |
| NAME | GHausman:jb | | BBurgess | JLara | |
| DATE | 10/7/05 | | 10/7/05 | 10/12/05 | |

OFFICIAL RECORD COPY

ADAMS Distribution:

GYS

DMS6

RidsNrrDipmlipb

GEG

KGO

DEK

CAA1

C. Pederson, DRS (hard copy - IR's only)

DRPIII

DRSIII

PLB1

JRK1

ROPreports@nrc.gov (inspection reports, final SDP letters, any letter with an IR number)

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000373/2005006(DRS); 05000374/2005006(DRS)

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: 2601 N. 21st Road
Marseilles, IL 61341

Dates: August 15 through September 2, 2005

Inspectors: G. Hausman, Senior Reactor Inspector, Lead
A. Dahbur, Reactor Inspector
A. Klett, Reactor Inspector

Approved by: J. Lara, Chief
Engineering Branch 3
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000373/2005006(DRS); 05000374/2005006(DRS); 08/15/2005 - 09/02/2005; LaSalle County Station, Units 1 and 2; Fire Protection Triennial Baseline Inspection.

This report covers an announced triennial fire protection baseline inspection. The inspection was conducted by Region III inspectors. One Green finding associated with a Non-Cited Violation was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (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: Mitigating Systems

- Green. A finding of very low safety significance was identified by the inspectors for a violation of Technical Specification 5.4.1(c) requirements. The licensee failed to establish written procedures that contained direction for ensuring that fire doors (i.e., fire-rated barriers) were closed and latched. Specifically, the inspectors found an inoperable fire door in which the latching pins were not extended into the door frame. The licensee's daily fire door surveillance failed to include direction for ensuring that the latching pins in the inactive door leaf in a set of double doors were extended into the door frame. Once identified, the licensee entered the finding into their corrective action program as Issue Report 00363677 to revise the affected procedure.

The finding was more than minor because the potential existed for fire doors to have been inoperable without established compensatory measures. Also, two instances of inoperable fire doors were found as a result of the performance deficiency. An inoperable fire barrier could have allowed the propagation of fire from one fire area to another that contained redundant safe shutdown equipment. The finding was of very low safety significance because the two fire areas that were separated by the inoperable fire doors did not contain redundant equipment important for safe shutdown. (Section 1R05.9b)

B. Licensee-Identified Violations

No findings of significance were identified.

REPORT DETAILS

Summary of Plant Status

Units 1 and 2 operated at or near full power throughout the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events and Mitigating Systems

1R05 Fire Protection (71111.05)

The purpose of this inspection was to review the LaSalle County Station's (LSCSs) Fire Protection Program (FPP) for selected risk-significant fire areas. Emphasis was placed on determining that the post-fire safe shutdown (SSD) capability and the fire protection (FP) features were maintained free of fire damage to ensure that at least one post-fire SSD success path was available. The inspection was performed in accordance with the Nuclear Regulatory Commission's (NRCs) regulatory oversight process using a risk-informed approach for selecting the fire areas and attributes to be inspected. The inspectors used the LSCSs Individual Plant Examination of External Events (IPEEE) to choose several risk-significant areas for detailed inspection and review. The fire areas chosen for review during this inspection were:

Selected Fire Areas and Zones

| <u>Fire Area</u> | <u>Fire Zone</u> | <u>Description</u> |
|-------------------------|-------------------------|----------------------------------|
| 3 | various | Unit 2 Reactor Building |
| 4 | various | Auxiliary Building |
| 5 | various | Turbine Building |
| 8 | various | Unit 2 Diesel-Generator Building |

For each of these fire areas, the inspection focused on selected FP features, the systems and equipment necessary to achieve and maintain SSD conditions, determination of licensee commitments, and changes to the FPP.

.1 Systems Required to Achieve and Maintain Post-Fire SSD

Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix R, Section III.G.1, required the licensee to provide FP features that were capable of limiting fire damage to structures, systems, and components (SSCs) important to SSD. The SSCs that were necessary to achieve and maintain post-fire SSD were required to be protected by FP features that were capable of limiting fire damage to the SSCs so that:

- One train of systems necessary to achieve and maintain hot shutdown conditions from either the control room or emergency control station(s) was free of fire damage; and
- Systems necessary to achieve and maintain cold shutdown from either the control room or emergency control station(s) can be repaired within 72-hours.

Specific design features for ensuring this capability were specified by 10 CFR Part 50, Appendix R, Section III.G.2.

a. Inspection Scope

The inspectors reviewed the plant systems required to achieve and maintain post-fire SSD to determine if the licensee had properly identified the components and systems necessary to achieve and maintain SSD conditions for each fire area selected for review in accordance with the criteria discussed above. Specifically, the review was performed to determine the adequacy of the systems selected for reactivity control, reactor coolant makeup, reactor heat removal, process monitoring, and support system functions. This review included the FP Safe Shutdown Analysis (SSA).

The inspectors also reviewed the operators' ability to perform the necessary manual actions for achieving SSD by reviewing procedures, the accessibility of SSD equipment, and the available time for performing the actions.

The inspectors reviewed the LSCSs Updated Safety Analysis Report and the licensee's engineering and/or licensing justifications (e.g., NRC guidance documents, license amendments, technical specifications, safety evaluation reports, exemptions, and deviations) to determine the licensing basis.

b. Findings

Introduction: The inspectors identified an unresolved item (URI) associated with the licensee not establishing the required physical protection or separation of cables to ensure that one redundant train of systems necessary to achieve and maintain hot shutdown condition was free of fire damage. The licensee instead relied on operator manual actions for post-fire SSD in the event of a fire in non-alternate shutdown areas.

Description: The inspectors noted that the SSA of the LSCSs Fire Protection Report (FPR), Sections H.4.2.11.1 and H.4.2.12.1, relied on operator manual actions to achieve and maintain SSD. In the event of a severe fire in Fire Zone 2F or in Fire Zone 3F, the licensee relied upon operator manual actions instead of meeting the physical protection or separation guidance contained in Appendix A to Branch Technical Position (BTP), ASB 9.5-1 and the requirements of 10 CFR Part 50, Appendix R, Section III.G.2. The operator manual actions were to be accomplished outside the main control room (MCR) and were relied upon for achieving and maintaining SSD from the MCR. The licensee did not receive NRC approval for a deviation from these requirements. The inspectors also noted that these operator manual actions were not specifically identified in procedures. Instead, the licensee depended on operator training to respond to component failures. Specifically, Procedure HU-LA-104-101, "Procedure Use and Adherence," Step 4.9.1, indicated that, "Actions required to manually duplicate an automatic action that has failed to automatically occur may be performed from memory," and Section 4.9.2, indicated that, "Manual initiation of automatic actions that failed to occur may be performed from memory without procedure."

The LSCSs SSA described two methods credited for SSD in the event of a fire, the “Basic” method used from the control room and the “Alternate” method used from the remote shutdown panel. The “Basic” method utilized the high pressure core spray (HPCS) system and the “Alternate” method utilized the reactor core isolation cooling (RCIC) system for reactor water makeup. The SSA, Section H.4.2.11.1 indicated that a fire in Fire Zone 2F-1 could affect the cabling for the Unit 1, HPCS injection valve 1E22-F004 and the Unit 1, RCIC isolation valve 1E51-F063. If the RCIC isolation valve was to spuriously close, the HPCS injection valve could be manually opened. The SSA, Section H.4.2.12.1 indicated a similar action for the Unit 2, HPCS injection valve 2E22-F004 and the RCIC isolation valve 2E51-F063 in the event of a fire in Fire Zone 3F-1.

Safety Evaluation Report (SER), NUREG-0519 supplement No. 7, Section 9.5.8, indicated that the licensee provided a commitment, in a letter dated November 28, 1983, to meet the requirements of Appendix R with the deviations identified and was accepted by the NRC staff. During this inspection, the inspectors found two deviations for lack of separation between redundant cables, located in the Unit 2 reactor building, listed in SSER supplement 5. However, the inspectors couldn’t find a deviation for the above manual operator actions. The SSER supplement 5 also indicated that based on the NRC evaluation, the staff concluded that the FPP for the LSCS, Units 1 and 2, with the accepted deviations for FP for SSD met the guidelines contained in Appendix A to Branch Technical Position ASB 9.5-1, the technical requirements of Appendix R to 10 CFR Part 50, and Criterion 3 of the General Design Criteria, and were therefore acceptable.

The FPP, SSA, Section H.4.1.3, stated “ Where local operator action was feasible, credit was taken for manual valve operation, local control of pump, and visual local monitoring of essential instrumentation.” The licensee indicated that based on the content of this section, the above operator manual actions were permitted and justified. The licensee planned no further actions in response to this issue.

The inspectors walked down the operator manual actions discussed above, reviewed them against the feasibility criteria identified in NRC Inspection Procedure (IP) 71111.05T, Enclosure 2, “Inspection Criteria for Fire Protection Manual Actions,” and concluded that although the operator manual actions were not specifically listed in the licensee’s procedure(s), which may have resulted in a delay in performing the required actions, they were feasible and could reasonably be accomplished. Per Nuclear Design Information Transmittal LAS-ENDIT-H035, “Appendix R Evaluation for Task #22,” and Procedure LOA-FX-101/201, “Unit 1 and Unit 2 Safe Shutdown with a Loss of Offsite Power and a Fire in the Control Room or AEER,” the HPCS or RCIC systems were required to provide reactor water makeup within 20-minutes.

Therefore, pending a review of the licensee’s commitment to 10 CFR Part 50, Appendix R, Section III.G, and a review to determine if the use of the above described operator manual actions instead of providing physical protection or separation to meet the LSCSs license condition, this issue is a URI (URI 05000373/2005006-01(DRS); 05000374/2005006-01(DRS)).

.2 Fire Protection of SSD Capability

Title 10 of the CFR, Part 50, Appendix R, Section III.G.2, required separation of cables and equipment and associated circuits of redundant trains by a fire barrier having a 3-hour rating. Title 10 CFR Part 50, Appendix R, Section III.G.3, required that, if the guidelines cannot be met, then alternative or dedicated shutdown capability and its associated circuits, independent of cables, systems or components in the area, room, or zone under consideration should be provided.

a. Inspection Scope

For each of the selected fire zones, the inspectors reviewed the licensee's SSA to ensure that at least one post-fire SSD success path was available in the event of a fire in accordance with the criteria discussed above. This included a review of manual actions required to achieve and maintain hot shutdown conditions and to make the necessary repairs to reach cold shutdown within 72-hours. The inspectors also reviewed procedures to determine whether or not adequate direction was provided to operators to perform these manual actions. Factors such as timing, access to the equipment, and the availability of procedures, were considered in the review.

The inspectors also evaluated the adequacy of fire suppression and detection systems, fire area barriers, penetration seals, and fire doors to ensure that at least one train of SSD equipment was free of fire damage. To accomplish this, the inspectors observed the material condition and configuration of the installed fire detection and suppression systems, fire barriers, construction details, and supporting fire tests for the installed fire barriers. In addition, the inspectors reviewed licensee documentation, such as deviations, detector placement drawings, fire hose station drawings, carbon dioxide pre-operational test reports, smoke removal plans, Fire Hazard Analysis (FHA) reports, SSA, and National Fire Protection Association (NFPA) codes to verify that the fire barrier installations met license commitments.

b. Findings

No findings of significance were identified.

.3 Post-Fire SSD Circuit Analysis

Title 10 CFR Part 50, Appendix R, Section III.G.1, required that SSCs important to SSD be provided with FP features capable of limiting fire damage to ensure that one train of systems necessary to achieve and maintain hot shutdown conditions remained free of fire damage. Options for providing this level of FP were delineated in 10 CFR Part 50, Appendix R, Section III.G.2. Where the protection of systems whose function was required for hot shutdown did not satisfy 10 CFR Part 50, Appendix R, Section III.G.2, an alternative or dedicated shutdown capability and its associated circuits, were required to be provided that was independent of the cables, systems, and components in the area. For such areas, 10 CFR Part 50, Appendix R, Section III.L.3, specifically required the alternative or dedicated shutdown capability to be physically and electrically independent of the specific fire areas and capable of accommodating post-fire

conditions where offsite power was available and where offsite power was not available for 72-hours.

a. Inspection Scope

The inspectors performed a review of the licensee's SSA and Safe Shutdown Equipment List (SSEL) to determine whether the licensee had appropriately identified and analyzed the safety related and non-safety related cables associated with SSD equipment located in the selected plant fire zones in accordance with the criteria discussed above. The inspectors' review included the assessment of the licensee's electrical systems and electrical circuit analyses.

The inspectors evaluated a sample of safety and non-safety related cables for equipment in the selected fire zones to determine if the design requirements of Section III.G of Appendix R to 10 CFR Part 50 were being met. This included determining that hot shorts, open circuits, or shorts to ground would not prevent implementation of SSD.

b. Findings

Introduction: The inspectors identified that the licensee evaluated their post-fire SSD circuit analysis using a method that was not consistent with the methodology described in the NRC Regulatory Issue Summary (RIS) 2004-003, Revision 1, "Risk-Informed Approach for Post-Fire Safe-Shutdown Circuit Inspections," issued on December 29, 2004. The licensee's position was that the RIS guidance was outside LSCSs licensing basis.

Description: During the inspectors' review of the licensee's FPP, specifically the review of Issue Report (IR) IR00369313, "Multiple Spurious ADS Valve Actuations URI (Q70)," dated September 1, 2005, the licensee stated that the LSCSs licensing basis was in conflict with the recent NRC inspection guidance discussed in RIS 2004-003, Revision 1. The LSCS methodology assumed a "single spurious" operation (except for high/low pressure interfaces) and was limited to valves. The licensee stated that the RIS 2004-003, Revision 1, guidance and/or methodology was not within the LSCSs licensing basis.

Further discussions between the licensee and the NRC concluded that a thorough review of LSCSs licensing basis was necessary and additional inspection effort warranted to evaluate the licensee's FPP. Therefore, pending review and completion of additional inspection activities concerning the LSCSs FPP, this issue is an URI. (URI 05000373/2005006-02(DRS); 05000374/2005006-02(DRS))

.4 Alternative Shutdown Capability

Title 10 of the CFR, Part 50, Appendix R, Section III.G.1, required the licensee to provide FP features that were capable of limiting fire damage so that one train of systems necessary to achieve and maintain hot shutdown conditions remained free of fire damage. Specific design features for ensuring this capability were provided in

10 CFR Part 50, Appendix R, Section III.G.2. Where compliance with the separation criteria of 10 CFR Part 50, Appendix R, Section III.G.2, could not be met, an alternative or dedicated shutdown capability be provided that was independent of the specific fire area under consideration. Additionally, alternative or dedicated shutdown capability must be able to achieve and maintain hot standby conditions and achieve cold shutdown conditions within 72-hours and maintain cold shutdown conditions thereafter. During the post-fire SSD, the reactor coolant process variables must remain within those predicted for a loss of normal alternating current power, and the fission product boundary integrity must not be affected (i.e., no fuel clad damage, rupture of any primary coolant boundary, or rupture of the containment boundary).

a. Inspection Scope

The inspectors reviewed the licensee's systems required to achieve SSD to determine if the licensee had properly identified the components and systems necessary to achieve and maintain SSD conditions in accordance with the criteria discussed above. The inspectors also focused on the adequacy of the systems to perform reactor pressure control, reactivity control, reactor coolant makeup, decay heat removal, process monitoring, and support system functions.

b. Findings

No findings of significance were identified.

.5 Operational Implementation of Alternate Shutdown Capability

The LSCSs FPP described the means by which SSD could be achieved to meet the requirements of 10 CFR Part 50, Appendix R, Sections III.G.3 and III.L. The LSCSs SSA identified the minimum number of components and plant systems necessary for achieving Appendix R SSD performance goals.

a. Inspection Scope

The inspectors performed a review of the licensee's operating procedures, which augmented the post-fire SSD procedures to determine if the licensee complied with the criteria discussed above. The review focused on ensuring that all required functions for post-fire SSD and the corresponding equipment necessary to perform those functions were included in the procedures. The review also looked at operator training, as well as consistency between the operations shutdown procedures and any associated administrative controls.

b. Findings

No findings of significance were identified.

.6 Communications

Title 10 of the CFR, Part 50, Appendix R, Section III.H, required that a portable communications system be provided for use by the fire brigade and other operations personnel required to achieve safe plant shutdown. This system should not interfere with the communications capabilities of other plant personnel. Fixed repeaters installed to permit use of portable radio communication units should be protected from exposure to fire damage.

a. Inspection Scope

The inspectors reviewed the adequacy of the communication systems to support plant personnel in the performance of alternative SSD functions and fire brigade duties to determine compliance. The inspectors conducted a review to determine that adequate communications were available to support SSD implementation.

b. Findings

No findings of significance were identified.

.7 Emergency Lighting

Title 10 of the CFR, Part 50, Appendix R, Section III.J., required that fixed self-contained lighting consisting of fluorescent or sealed-beam units with individual 8-hour minimum battery power supplies should be provided in areas that must be manned for SSD and for access and egress routes to and from all fire zones.

a. Inspection Scope

The inspectors performed a walkdown of the fire zones and the access/egress routes to determine that adequate emergency lighting existed in accordance with the criteria discussed above.

b. Findings

No findings of significance were identified.

.8 Cold Shutdown Repairs

Title 10 of the CFR, Part 50, Appendix R, Section III.L.5, required that equipment and systems comprising the means to achieve and maintain cold shutdown conditions should not be damaged by fire; or the fire damage to such equipment and systems should be limited so that the systems can be made operable and cold shutdown achieved within 72-hours. Materials for such repairs shall be readily available onsite, and procedures shall be in effect to implement such repairs.

a. Inspection Scope

The inspectors reviewed the licensee's procedures to determine if any repairs were required to achieve cold shutdown. The inspectors determined that the licensee did require repair of some equipment to reach cold shutdown based on the SSD methods used. The inspectors reviewed the procedures for adequacy.

b. Findings

No findings of significance were identified.

.9 Fire Barriers and Fire Zone/Room Penetration Seals

Title 10 of the CFR, Part 50, Appendix R, Section III.M, required that penetration seal designs be qualified by tests that are comparable to tests used to rate fire barriers.

a. Inspection Scope

The inspectors reviewed test reports for 3-hour rated barriers installed in the plant, performed visual inspections of selected barriers to determine if the barrier installations were consistent with tested configuration, and reviewed drawings and penetration seal schedules.

b. Findings

Introduction: The inspectors identified a Non-Cited Violation (NCV) of Technical Specification 5.4.1(c) having very low safety significance (Green) for the licensee's failure to establish written procedures that contained direction for ensuring that fire doors (i.e., fire-rated barriers) were closed, latched, and operable.

Description: During a plant walkdown, the inspector traversed through Fire Door 393 which was a double door separating the Unit 1 and Unit 2 Reactor Buildings. When verifying that the fire door was latched closed, the inspector identified that both doors opened with negligible resistance. As a result, operations staff declared the fire door inoperable, and the issue was entered into the licensee's corrective action program as IR 00363677, "NRC 2005 FP Inspection-Door 393 Inactive Leaf Not Pinned," dated August 16, 2005. The licensee's staff found that the pins in the inactive door leaf (the stationary door without a handle) of the set of double doors were not extended into the door frame. Although the doors were latched to each other, both doors opened easily without the inactive leaf door pins extended into the door frame. The licensee's staff re-latched the pins and the door was declared operable. The licensee performed an extent of condition review on fire doors of similar construction and found that one of two pins on Fire Door 406, which also separated the Unit 1 and Unit 2 Reactor Buildings, was not extended into the door frame. The licensee declared this door inoperable until the pin was re-latched.

The licensee's Technical Requirements Manual (TRM), which contained the administrative controls for the fire protection program as specified by the UFSAR, stated

that fire barriers are used to prevent the spread of a fire and to limit the damage from a fire. The TRM also defined a fire resistant door as a fire rated assembly which shall be operable at all times and specified a daily surveillance requirement to verify the position of each closed fire door. The licensee's daily fire door surveillance procedure, LOS-FP-D1, instructed operators to verify the position of each closed fire door listed in an attachment of the procedure. However, the procedure did not instruct operators to verify that fire doors were closed and latched (i.e., the stationary pins were extended into the door frame) by challenging the door. As written, the procedure allowed a visual verification of a closed fire door position without challenging the door. The licensee representatives informed the inspectors that challenging the fire doors was a common practice during the implementation of this procedure.

Analysis: The inspectors determined that the failure to establish written procedures that contained direction for ensuring that fire doors were closed and latched was a performance deficiency warranting a significance evaluation. The inspectors concluded that the finding was greater than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," issued on May 19, 2005. The finding involved the attribute of protection against external factors (fire) and affected the mitigating systems objective of ensuring the availability of systems that respond to initiating events to prevent undesirable consequences. The lack of instructions within procedure LOS-FP-D1 for ensuring that the stationary pins were extended into the door frame fire doors resulted in inoperable fire doors without established compensatory measures. This performance deficiency affected 24 sets of double fire doors, 2 of which were identified as inoperable. The inoperable fire barriers could have allowed the propagation of a fire from one unit to the other, which was an unanalyzed condition, or from one fire area to another that contained redundant SSD equipment.

In accordance with IMC 0609, Appendix A, the inspectors performed an SDP Phase 1 screening and determined that the finding degraded the FP portion of the Mitigation Systems Cornerstone. Therefore, screening under IMC 0609, Appendix F, "Fire Protection Significance Determination Process," dated May 28, 2005, was required. Based on Table 1.1-1 in Appendix F, the finding was determined to affect the element of fire confinement. The finding was assigned a Moderate B degradation rating in accordance with Table A2.2 in Attachment 2 of Appendix F because the door latches (leaf pins) would not have functioned in their as-found condition. Since the finding was related to fire confinement and assigned a Moderate B degradation rating, Step 1.3, Task 1.3.2 of Appendix F was performed. The inspectors determined that the as-found condition of Fire Door 406 with one of two pins not latched would have provided at least a 2-hour fire endurance rating based on the door's ability to not open, buckle, or move out of the frame with one pin latched into the frame. The inspectors also determined that because Fire Door 393 did not separate fire zones containing redundant equipment important to SSD and because the immediate area on the Unit 1 side of Fire Door 393 was protected with a sprinkler system (the door swings open in the direction from Unit 2 to Unit 1), the exposed area (Unit 1 Rx Bldg) did not contain potential damage targets that were unique from those in the exposing fire area (Unit 2 Rx Bldg). Therefore, this finding was considered to be of very low safety significance (Green).

Enforcement: Technical Specification 5.4.1(c) required that written procedures for the station's FPP be established, implemented, and maintained. Contrary to this requirement, the licensee's daily fire door surveillance procedure failed to establish directions for ensuring that fire doors (i.e., fire rated assemblies) are latched, closed, and operable. The licensee entered this issue into their corrective action program as IR 00363677 and revised the daily fire door surveillance procedure by adding direction to challenge the fire doors to ensure that the door latches and pins are engaged. Because this violation was of very low safety significance and it was entered into the licensee's corrective action program, this violation is being treated as a NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 05000373/2005006-03(DRS); 05000374/2005006-03(DRS)).

.10 Fire Protection Systems, Features and Equipment

a. Inspection Scope

The inspectors reviewed the material condition, operations lineup, operational effectiveness, and design of fire detection systems, fire suppression systems, manual fire fighting equipment, fire brigade capability, and passive fire protection features. The inspectors reviewed deviations, detector placement drawings, fire hose station drawings, and fire hazard analysis reports to ensure that selected fire detection systems, sprinkler systems, portable fire extinguishers, and hose stations were installed in accordance with their design, and that their design was adequate given the current equipment layout and plant configuration.

b. Findings

Introduction: The inspectors identified a URI associated with the licensee's analysis for deviating from the LSCS's National Fire Protection Association (NFPA) code of record (72E-1974 "Automatic Fire Detectors") for the installation of automatic smoke detectors. Specifically, the inspectors were concerned that the analysis did not adequately justify the quantity and location of smoke detectors in several safety-related fire zones.

Description: During a walkdown of Unit 2 safety related Fire Zones 4E2 (i.e., Auxiliary Electrical Equipment Room), 4E4 (i.e., Division 2 Switchgear and 125Vdc Battery Room), 4F2 (i.e., Division 1 Switchgear and 250/125Vdc Battery Room), and 5D2 (i.e., Division 3 HPCS Switchgear and 125Vdc Battery Room), the inspectors noted several concerns regarding the spacing and installation of smoke detectors. Specifically, the smoke detectors were located below beams that were 18-inches and larger in depth and several smoke detectors were located below the cable trays in the fire zone. Also, the inspectors noted that an aisle located in Fire Zone 4E4 did not have smoke detectors installed in the beam pocket as required per NFPA code 72E-1974. The aisle lacking smoke detection was approximately 24-feet long by 5-feet wide; it had 24-inch construction beams, which ran across the west and south ends of the area, and contained several cable trays that ran in the overhead of the area. The nearest smoke detectors were located approximately 7-feet from the west beam and 6-feet from the south beam.

The inspectors noted that NRC inspection reports 50-373/83-44(DE); 50-374/83-48(DE) had also identified the same concerns during the facility licensing process. On December 12, 1983, the NRC issued a severity Level IV violation for inadequate design and installation of the fire detection system throughout all areas of the plant at LSCS. Specifically, the inspectors found that the detections system did not meet the provisions of the NFPA 72E, in that, the number of smoke detectors installed were inadequate and those detectors installed were improperly positioned on suspended conduit 4-feet beneath the ceiling and approximately 18-inches beneath the beams instead of being located at the ceiling as required by NFPA 72E. The above inspection reports also included open items 50-373/83-44-10 and 50-374/83-48-16 to resolve the NRC concern regarding the actuation of smoke detectors in the SSD areas where there was continuous high ventilation air flow.

In response to the previously identified NRC violation described above, the licensee performed an analysis which included justification for the smoke detectors installation and recommended modifications. The modifications included the addition of two detectors and the relocation of other six detectors for the safety related fire zones which were reviewed for both units, the above fire zones were among these fire zones. The analysis was submitted from the licensee to the NRC by a letter dated March 9, 1984, where the licensee requested that open items 50-373/83-44-10 and 50-374/83-48-16 to be closed based on the analysis. Moreover, the concern for Unit 2 over the design adequacy of the licensee's smoke detectors installation (open item 50-374/83-48-16) was incorporated as a condition in the Unit 2 license. This license condition was tracked by open item 374/81-00-56(DPRP) which was closed in NRC Region III Inspection Reports 50-373/84-05 (DPRP); 50-374/84-05 (DPRP), where the inspectors at that time verified that all items which were tracked by this open item were completed.

During this inspection, the inspectors reviewed the above analysis which justified the installation of the smoke detectors, and concluded that the analysis was inadequate. The analysis stated that ceiling heights in the rooms surveyed were a minimum of 16-feet and therefore, were considered "high" ceilings (i.e., subject to stratification) as described in NFPA 72E. The depths of beams in the rooms varied between 8- and 36-inches. However, because of the effects of stratification, ventilation, and the nature of the combustibles (e.g., cables qualified to IEEE 383), the beams in these rooms were not considered a factor in the location of detectors per the analysis. The inspectors did not find the height of the ceilings, the ventilation and the nature of combustibles at LSCS unique and different from other nuclear power plants. The analysis also included a stratification effect section which was based on section 4-3.1.2 of NFPA 72E-1982. This section of the licensee's analysis indicated that the installation of detectors at least 3-feet below the ceiling, alternating with ceiling mounted detectors, is suggested as a means of improving detector response time in high ceiling rooms where stratification is expected. The inspectors found that this is contrary to section 4-4.5.2 of the licensee's code of record, NFPA code 72E-1974, which stated that for proper protection of buildings with high ceilings, detectors shall be installed alternately at two levels; one half at ceiling level, and the other half at least 3-feet below the ceiling. The inspectors reviewed section 4-3.1.2 of NFPA 72E-1982 and concluded that the conditions described in this section, which are known to accentuate stratification did not apply to the types of ceiling in these safety-related rooms at LSCS. The inspectors also

concluded that the analysis inadequately interpreted the requirements of the NFPA 72E by not installing detectors at the ceiling in several beam pockets, specifically in the aisle located in fire zone 4E4. In addition, the inspectors' walkdown of Fire Zone 3F showed that all detectors were mounted on the ceiling, and the ceiling height was higher than the other safety related rooms which shows inconsistency in how the licensee installed detectors.

The licensee initiated IR 00368883, "Fire Detector Location in Fire Zone 4E4 U2 Div 2 SWGR Room (Q94)," dated August 31, 2005, to document the inspectors concerns and evaluate the lack of smoke detectors in the switchgear room aisle and the location of several detectors below the cable trays. The evaluation indicated that the smoke detectors located near both ends of the aisle were located approximately 34-feet apart and that the NFPA code 72E-1974 allowed spacing of up to 41-feet in corridors that are 10-feet wide or less. The evaluation also indicated that the cable trays located in the aisle, which have solid metal bottoms and sides, would have provided significant obstructions to smoke flow towards the ceiling and would tend to divert smoke towards the smoke detectors located on both ends of the aisle. However, the inspectors determined that the evaluation failed to properly evaluate the affect of the beam pockets and the mounting of the smoke detectors 3-feet below the ceiling.

The inspectors were concerned that the licensee's technical basis for the design and installation of the fire detection systems throughout all safety related areas of the plant was inadequate. Specifically, the smoke from a fire in those areas could accumulate in the ceiling areas in the beam pockets and delay detection of the fire. This delay in detection would also delay any subsequent manual fire suppression activities. Therefore, pending a review of the adequacy of the smoke detectors' installation and review of NRC's prior evaluation and acceptance of the licensee's analysis, this issue is an URI. (URI 05000373/2005006-04(DRS); 05000374/2005006-04(DRS))

.11 Compensatory Measures

a. Inspection Scope

The inspectors conducted a review to determine that adequate compensatory measures were put in place by the licensee for out-of-service, degraded or inoperable FP and post-fire SSD equipment, systems, or features. The inspectors also reviewed the adequacy of short term compensatory measures to compensate for a degraded function or feature until appropriate corrective actions were taken.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems (71152)

a. Inspection Scope

The inspectors reviewed the corrective action program procedures and samples of corrective action documents to assess whether or not the licensee was identifying issues related to FP at an appropriate threshold and entering them in the corrective action program. The inspectors reviewed selected samples of condition reports, work orders, design packages, and FP system non-conformance documents.

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Ms. Susan Landahl and other members of licensee management at the conclusion of the inspection on September 2, 2005. 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

No interim exits were conducted.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

E. Ballou, Mechanical Design Engineer
B. Collins, Fire Marshall
L. Coyle, Operations Director
D. Czufin, Engineering Director
B. Dudley, Senior Reactor Operator
D. Enright, Plant Manager
F. Gogliotti, Plant Engineering Manager
B. Hilton, Mechanical and Structural Supervisor
P. Holland, Regulatory Assurance
K. Ihnen, Nuclear Oversight
S. Landahl, Site Vice President
M. Murskyj, Plant Electrical System Supervisor
J. Rappeport, Nuclear Oversight Manager
J. Rommel, Design Engineering Manager
T. Simpkin, Regulatory Assurance Manager
R. Vickers, Fire Protection System Engineer
J. Washko, Operations

Nuclear Regulatory Commission

J. Lara, Engineering Branch 3 Chief
D. Kimble, Senior Resident Inspector
D. Eskins, Resident Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

| | | |
|---|-----|--|
| 05000373/2005006-01(DRS); 05000374/2005006-01(DRS) | URI | Licensee Relied on Operator Manual Actions for Post-fire SSD (Section 1R05.1b) |
| 05000373/2005006-02(DRS); 05000374/2005006-02(DRS) | URI | Post-Fire Safe-Shutdown Circuit Analysis Not Consistent with RIS 2004-003 (Section 1R05.3b) |
| 05000373/2005006-03(DRS); 05000374/2005006-03(DRS) | NCV | Procedures Fail to Ensure Fire Doors Are Operable (Section 1R05.9b) |
| 05000373/2005006-04(DRS); 05000374/2005006-04(DRS) | URI | Justification Inadequate for Detection System Not Meeting NFPA 72E Requirements (Section 1R05.10b) |

Closed

| | | |
|---|-----|---|
| 05000373/2005006-03(DRS); 05000374/2005006-03(DRS) | NCV | Procedures Fail to Ensure Fire Doors Are Operable (Section 1R05.9b) |
|---|-----|---|

Discussed

None.

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of 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.

CALCULATIONS

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|---------------|-----------------------------|-------------------------|
| LSCS-FPR | LaSalle County Station FPR | 1 |

CORRECTIVE ACTION PROGRAM DOCUMENTS ISSUED DURING INSPECTION

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|---------------|---|-------------------------|
| IR00360530 | Emerg Light Lid Not Closed & Latched | August 5, 2005 |
| IR00363677 | Door 393 Inactive Leaf Not Pinned (Q61) | August 16, 2005 |
| IR00363683 | Door 268 Closure Degraded (Q60) | August 16, 2005 |
| IR00363967 | Reference Errors in LOS-FX-A1 (Q58) | August 17, 2005 |
| IR00363998 | Outdated Procedure Revisions in Repair Locker (Q16) | August 17, 2005 |
| IR00364029 | Shift Manager's Key Locker Required Lighting (Q45) | August 17, 2005 |
| IR00364226 | Suppression Equip for Fire Zone 4E4 (Q53) | August 18, 2005 |
| IR00364228 | HPCS Injection Valve Manual Action (Q09) | August 18, 2005 |
| IR00364287 | Review LOA-FX-101/201 for Key Storage (Q55) | August 18, 2005 |
| IR00364803 | Enhance Procedure - Provide Added Guidance (Q63) | August 19, 2005 |
| IR00364937 | Potential Actions Not Found in SSD Procedure (Q70) | August 19, 2005 |
| IR00365588 | LOA-FX Procedure References Incorrect Key (Q95) | August 22, 2005 |
| IR00366234 | Incorrect Dwg X-Referenced for Continuation (Q77) | August 24, 2005 |
| IR00366864 | LOA-FX-101/201 RCIC Initiation Timeline (Q84) | August 25, 2005 |
| IR00367033 | UFSAR & P&ID Revisions Needed (Q92) | August 26, 2005 |
| IR00367969 | Cables Not Listed in Fire Zones (Q77-1) | August 29, 2005 |
| IR00368247 | NFPA Code Deviation Summary Att 1 Omitted | August 30, 2005 |
| IR00368711 | Results of IRs Generated on Fire Doors (Q60) | August 31, 2005 |
| IR00368883 | Fire Detector Locations in Fire Zone 4E4 (Q94) | August 31, 2005 |
| IR00369313 | Multiple Spurious ADS Valve Actuations URI (Q70) | September 1, 2005 |
| IR00369631 | Commitment to App R & Manual Actions URI (Q09) | September 2, 2005 |

CORRECTIVE ACTION PROGRAM DOCUMENTS ISSUED PRIOR TO INSPECTION

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|---------------|--|-------------------------|
| IR00046979 | Sill Found in Degraded Condition During Walkdown | March 8, 2001 |
| IR00189513 | FP Drawing Discrepancies | December 8, 2003 |
| IR00194752 | Failure to Challenge Door after Egress | January 12, 2004 |
| IR00214202 | Fire Door Found Unlatched | April 9, 2004 |
| IR00268176 | Trickle Charge Light Out On App R Battery Pack Light | October 28, 2004 |
| IR00269976 | Fire Door Found Ajar in U2 Div II SWGR Room | November 3, 2004 |

CORRECTIVE ACTION PROGRAM DOCUMENTS ISSUED PRIOR TO INSPECTION

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|---------------|---------------------------------------|-------------------------|
| IR00310187 | Fire Door D120 Found Held Open by d/p | March 13, 2005 |
| IR00357766 | HP Cables Not Identified in FP Plan | July 28, 2005 |
| IR00357898 | Revise FPR Table H.4-111 Sheet 4 | July 28, 2005 |

DRAWINGS

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|--------------------|--|-------------------------|
| 1E-0-3073 | Elect Installation Fire Stop & Fire-Barriers Details | F |
| 1E-0-3932 | FP System Floor EL 677'-0", 749'-0" & 843'-6" | H & J |
| 1E-0-3933B | Fire Detection System Floor EL 731'-0" | C |
| 1E-0-3933M | Fire Detection System Floor EL 731'-0" | C |
| 1E-0-3934M | FP System Floor EL 710'-6" | A & B |
| 1E-1-3518 | Elect Install Rx Bldg EL 740'-0" Cols 8.9-12 & A-E | AW |
| 1E-2-3124 | Cable Pans Aux Bldg EL 687'-0" Cols 18-21 & J-N | D |
| 1E-2-3124A | Parts/Covers-Aux Bldg EL 687'-0" Cols 18-21 & J-N | E |
| 1E-2-3516, Sheet 1 | Elect Installation Rx Bldg EL 740'-0" Cols 15-18 & E-J | BA |
| 1E-2-3518, Sheet 1 | Elect Installation Rx Bldg EL 740'-0" Cols 15-18 & A-E | AR |
| 1E-2-3645 | Fire-Barrier Seal Tabulation Aux Bldg | Y |
| 1E-2-3664 | Cable Pan Routing Aux Bldg EL 731'-0" Cols 18-24 | J |
| 1E-2-4000DB | Station K/D 125Vdc Distribution System | H |
| 1E-2-4000DC | Station K/D 250Vdc Distribution System | C |
| 1E-2-4000EC | K/D 250Vdc MCC 221Y | S |
| 1E-2-4000FB | K/D 125Vdc Distribution-ESS Div 1 | N |
| 1E-2-4000FC | K/D 125Vdc Distribution-ESS Div 2 | N |
| 1E-2-4226AX | S/D RCIC System RI (E51) Pt 22 | R |
| 1E-2-4392AC | Internal/External W/D Rx Bldg 480V MCC 236Y-2 Pt 3 | N |
| M-141 | P&ID High Pressure Core Spray | AP |
| M-142, Sheet 1 | P&ID Residual Heat Removal System | AP |
| M-142, Sheet 2 | P&ID Residual Heat Removal System | AT |
| M-142, Sheet 3 | P&ID Residual Heat Removal System | AX |
| M-142, Sheet 4 | P&ID Residual Heat Removal System | AA |
| M-142, Sheet 5 | P&ID Residual Heat Removal System | K |
| M-147, Sheet 1 | P&ID Reactor Core Isolation Coolant System | BF |
| M-147, Sheet 2 | P&ID Reactor Core Isolation Coolant System | AK |
| M-1389 | Aux Bay Ventilation & Air Conditioning EL 731'-0" | AD |
| S-1073 | Aux Bldg Floor Framing EL 749'-0" South Area | AJ |
| S-1074 | Aux Bldg Floor Framing EL 749'-0" North Area | AN |

FIRE PROTECTION IMPAIRMENT PERMITS

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|---------------|--|-------------------------|
| 1-05-128-TRM | Detection Zone 1-35 Inoperable - Detector Alarming | July 12, 2005 |
| 2-04-202-TRM | LES-FP-06 U2 DG Corridor Pre-Action System Att A.3 | March 13, 2005 |
| 2-05-036-TRM | 2A DG CO ₂ System Inoperable With Door 505 Opened | April 4, 2005 |

PRE-FIRE PLANS

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|----------------------|---|--------------------------------|
| Fire Zone 2F | Rx Bldg EL 740'-0" U1 | February 2005 |
| Fire Zone 2G | Rx Bldg EL 710'-6" U1 | February 2005 |
| Fire Zone 3F | Rx Bldg EL 740'-0" Drywell Entrance Floor U2 | February 2005 |
| Fire Zone 3G | Rx Bldg EL 710'-6" Suppression Pool Entrance U2 | February 2005 |
| Fire Zone 5D2 | Aux Bldg EL 687'-0" HPCS SWGR Area Div 3 U2 | February 2005 |

PROCEDURES

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|----------------------|---|--------------------------------|
| EP-AA-1005 | Radiological Emerg Plan Annex For LSCS | 18 |
| LMS-ZZ-03 | Inspect Fire Doors Separating SR Fire Areas | 8 |
| LOA-FP-201 | U2 FP System Abnormal | 6 |
| LOA-FX-201 | U2 SSD with a LOOP & a Fire in the CR or AEER | 7 |
| LOA-RX-201 | U2 CR Evacuation Abnormal | 4 |
| LOP-RX-08 | Startup of SD Cooling from the Remote SD Panel | 9 |
| LOS-DC-Q7 | SSD App R DC Emerg Light Inspection & Data Sheets | 2 |
| LOS-FP-D1 | FP Door Daily Surveillance | 3 & 4 |
| LOS-FX-A1 | SSD Support Equip Inventory Verification | 9 |
| LOS-FX-R1 | SSD Support Valve Handwheel Verification | 0 |
| LTS-1000-41 | Elect Fire Penetration Inspection | 9 |
| LTS-1000-42 | Fire Assembly Integrity Inspection | 9 |
| NSWP-S-04 | Fire Stop Installation & Inspection | 1 |
| OP-AA-201-009 | Control of Transient Combustible Material | 4 |
| OP-LA-101-111-1001 | On-Shift Staffing Requirements | 1 |
| OP-MW-201-007 | FP System Impairment Control | 3 |
| TRM B 3.7.n | Technical Requirements Manual Basis SSD Lighting | 1 |
| TRM 3.7.o | Fire Rated Assemblies | 1 |

REFERENCES

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|----------------------|--|--------------------------------|
| | LSCS Archival Ops Narrative Logs | August 5, 2005 |
| LSCS-UFSAR | Updated Final Safety Analysis Report | 14 |
| LSCS-UFSAR | UFSAR Amendment 45 | April 1979 |
| LSCS-UFSAR | UFSAR Amendment 63 | July 1983 |
| LOA-FX-101 | Procedure Based Instruction Guide Ops Training LOA-FX-101 Review | April 29, 2003 |
| Module/LP ID 451 | Ops Training Program - Initial & Continuing Training LGA Support Procedure Overview | June 3, 2003 |
| | LORT Open Items Report 2004/2005 LRTPID 23 | August 10, 2005 |
| NUREG 0519 | SER Related to Operation of LSCS U1 & 2, Sect 9.5 | March 1981 |
| NUREG 0519, Sup 2 | SER Related to Operation of LSCS U1 & 2, Sect 9.5 | February 1982 |

REFERENCES

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|-------------------|---|-------------------------|
| NUREG 0519, Sup 3 | SER Related to Operation of LSCS U1 & 2, Sect 9.5 | April 1982 |
| NUREG 0519, Sup 5 | SER Related to Operation of LSCS U1 & 2, Sect 9.5 | August 1983 |
| NUREG 0519, Sup 7 | SER Related to Operation of LSCS U1 & 2, Sect 9.5 | December 1983 |

VENDOR DOCUMENTS

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|---------------|--|-------------------------|
| N/A | Emerg Light & Battery Description for Big Beams | N/A |
| TR-149 | TRANSCO TR-149 Fire & Hose Stream Tests of TCO-001 Cement Used in an Elect Penetration | May 21, 1984 |

WORK REQUESTS

| <u>Number</u> | <u>Description or Title</u> | <u>Date or Revision</u> |
|---------------|--|-------------------------|
| 00133074 | Door Latch Is Degraded Needs Fix ASAP | February 21, 2004 |
| 00579398 | Fire Rated Assembly Inspection | January 7, 2005 |
| 00585741 | LOS-FX-R1 SSD Support Vlv Hndwhl Verification U2 | February 23, 2005 |
| 00666900 | LOS-FX-A1 SSD Support Equip Inventory Att U0/1/2 | March 17, 2005 |
| 00764310 | Inspect Fire Doors Separating SR Fire Areas | May 19, 2005 |
| 00808220 | SSD App R DC Emerg Light Inspection | August 2, 2005 |
| 00839561 | OP LOS-FP-D1 Att 1A FP Door Daily Surveillance | August 16, 2005 |
| 98089736 | Hydro All Fire Hoses Per TS 4.7.5.4.D or Replace | November 8, 2000 |

LIST OF ACRONYMS USED

| | |
|-----------------|---|
| AC or ac | Alternating Current |
| ADAMS | Agency-Wide Document Access and Management System |
| ADS | Automatic Depressurization System |
| AEER | Auxiliary Electrical Equipment Room |
| App | Appendix |
| ASAP | As Soon as Possible |
| Att | Attachment |
| ATTN | Attention |
| Aux | Auxiliary |
| Bldg | Building |
| CFR | Code of Federal Regulations |
| CO ₂ | Carbon Dioxide |
| CR | Control Room |
| DC or dc | Direct Current |
| d/p | Differential Pressure |
| Div | Division |
| DG | Diesel Generator |
| Dwg | Drawing |
| DRS | Division of Reactor Safety |
| ECCS | Emergency Core Cooling System |
| EL | Elevation |
| Elect | Electrical |
| Emerg | Emergency |
| FHA | Fire Hazard Analysis |
| FP | Fire Protection |
| FPI | Fire Protection Inspection |
| FPP | Fire Protection Program |
| FPR | Fire Protection Report |
| gov | Government |
| HP | High Pressure |
| HPCS | High Pressure Core Spray |
| html | Hypertext Markup Language |
| http | Hypertext Transfer Protocol |
| IMC | Inspection Manual Chapter |
| IP | Inspection Procedure |
| IPEEE | Individual Plant Examination of External Events |
| IR | Inspection Report or Issue Report |
| k | kilo |
| K/D | Key Diagram |
| LLC | Limited Liability Company |
| LSCS | LaSalle County Station |
| LOA | LaSalle Operating Abnormal |
| LOOP | Loss-of-Offsite-Power |
| MCC | Motor Control Center |

LIST OF ACRONYMS USED

| | |
|--------|--------------------------------------|
| MCR | Main Control Room |
| NCV | Non-Cited Violation |
| NFPA | National Fire Protection Association |
| NPF | Nuclear Power Facility |
| NRC | U. S. Nuclear Regulatory Commission |
| NRR | Office of Nuclear Reactor Regulation |
| NUREG | NRC Technical Report Designation |
| OA | Other Activities |
| OPS | Operations |
| PARS | Publically Available Records System |
| P&ID | Piping and Instrumentation Diagram |
| Pt | Part |
| RCIC | Reactor Core Isolation Cooling |
| RIS | Regulatory Issue Summary |
| Rx | Reactor |
| S/D | Schematic Diagram |
| SD | Shutdown |
| SDP | Significance Determination Process |
| SER | Safety Evaluation Report |
| SR | Safety Related |
| SSA | Safe Shutdown Analysis |
| SSCs | Structures, Systems, and Components |
| SSD | Safe Shutdown |
| SSEL | Safe Shutdown Equipment List |
| Sup | Supplement |
| SWGR | Switchgear |
| TR | Test Report |
| TRM | Technical Requirements Manual |
| TS | Technical Specifications |
| U | Unit |
| UFSAR | Updated Final Safety Analysis Report |
| URI | Unresolved Item |
| V or v | Volt |
| W/D | Wiring Diagram |
| wpd | WordPerfect Document |
| www | World Wide Web |