

December 31, 2008

Mr. Charles G. Pardee  
President and Chief Nuclear Officer (CNO), Exelon Nuclear  
Chief Nuclear Officer (CNO), AmerGen Energy Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2  
TRIENNIAL FIRE PROTECTION INSPECTION REPORT 05000373/2008007;  
05000374/2008007

Dear Mr. Pardee:

On November 21, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed a triennial fire protection inspection at your LaSalle County Station, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on November 21, 2008, with Mr. D. Rhoades 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, two NRC-identified findings of very low safety significance were identified. The findings involved a violation of NRC requirements. However, because of their very low safety significance, and because the issues were entered into your corrective action program, the NRC is treating the issues as Non-Cited Violations (NCVs) in accordance with Section VI.A.1 of the NRC Enforcement Policy.

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

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

Sincerely,

**/RA by D. E. Hills Acting For/**

Robert C. Daley, Chief  
Engineering Branch 3  
Division of Reactor Safety

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

Enclosure: Inspection Report 05000373/2008007 05000374/2008007  
w/Attachment: Supplemental Information

cc w/encl: Site Vice President - LaSalle County Station  
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  
J. Klinger, State Liaison Officer,  
Illinois Emergency Management Agency  
Chairman, Illinois Commerce Commission

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Letter to Mr. Charles Pardee from Mr. Robert Daley dated December 31, 2009.

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2  
TRIENNIAL FIRE PROTECTION INSPECTION REPORT 05000373/2008007;  
05000374/2008007

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 05000373/2008007; 05000374/2008007  
License Nos: NPF-11; NPF-18

Report No: 05000373/2008007; 05000374/2008007

Licensee: Exelon Generation Company, LLC

Facility: LaSalle County Station, Units 1 and 2

Location: Marseilles, IL

Dates: November 3 through November 21, 2008

Inspectors: R. Langstaff, Senior Reactor Inspector, Lead  
Z. Falevits, Senior Reactor Inspector  
R. Winter, Reactor Inspector

Approved by: R. Daley, Chief  
Engineering Branch 3  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000373/2008007, 05000374/2008007; 11/03/2008–11/21/2008; LaSalle County Station, Units 1 & 2.

This report covers an announced baseline inspection by regional inspectors. Two Green findings were identified by the inspectors. The findings were considered Non-Cited Violations (NCVs) of NRC regulations. 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 4, dated December 2006.

### A. NRC-Identified and Self-Revealed Findings

#### **Cornerstone: Initiating Events**

- Green. A finding of very low safety significance and associated NCV of Technical Specifications was identified by the inspectors for the failure to implement a fire protection program procedure for combustible controls. Specifically, the inspectors identified three examples where transient combustible materials were staged adjacent to cable risers contrary to the licensee's procedure for combustible controls. The licensee subsequently removed the transient combustible materials and entered the issue into their corrective action program.

The finding was determined to be more than minor because, the finding was similar to IMC 0612, Appendix E, Example 4.k, in that the transient combustibles presented credible fire scenarios, which could affect equipment important to safety. The issue was of very low safety significance because, the finding represented a low degradation of the licensee's combustible controls program. Additionally, this finding has a cross-cutting aspect in the area of Human Performance for the Work Practices component because, multiple examples were identified where transient combustibles were staged contrary to site procedures. [H.4(b)] (Section 1R05.2.b(1))

#### **Cornerstone: Mitigating Systems**

- Green. A finding of very low safety significance and associated NCV of the license condition was identified by the inspectors for the failure to install a sprinkler system. Specifically, the licensee had installed a pre-action spray system above the suspended ceiling in Fire Zone 4F3 instead of a pre-action sprinkler system as specified by the Fire Protection Report. The licensee subsequently entered the issue into its correction action program.

The finding was determined to be more than minor because, the installed spray system was less capable than a sprinkler system in that, a fire would be permitted to grow to a larger size and cause more damage as a result of delayed system actuation. The issue was of very low safety significance due to remaining mitigating system capability. (Section 1R05.4.b(1))

**B. Licensee-Identified Violations**

No violations of significance were identified.

## REPORT DETAILS

### 1. REACTOR SAFETY

#### **Cornerstone: Initiating Events and Mitigating Systems**

##### 1R05 Fire Protection (71111.05T)

The purpose of the Fire Protection Triennial Baseline Inspection was to conduct a design-based, plant specific, risk-informed, onsite inspection of the licensee's fire protection program's defense-in-depth elements used to mitigate the consequences of a fire. The fire protection program shall extend the concept of defense-in-depth to fire protection in plant areas important to safety by:

- preventing fires from starting;
- rapidly detecting, controlling and extinguishing fires that do occur; and
- providing protection for structures, systems, and components important to safety so that a fire that is not promptly extinguished by fire suppression activities will not prevent the safe shutdown of the reactor plant.

The inspectors' evaluation focused on the design, operational status, and material condition of the reactor plant's fire protection program and post-fire safe shutdown systems. The objectives of the inspection were to assess whether the licensee had implemented a fire protection program that: (1) provided adequate controls for combustibles and ignition sources inside the plant; (2) provided adequate fire detection and suppression capability; (3) maintained passive fire protection features in good material condition; (4) established adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems or features; (5) ensured that procedures, equipment, fire barriers and systems exist so that the post-fire capability to safely shutdown the plant was ensured; (6) included feasible and reliable operator manual actions when appropriate to achieve safe shutdown; and (7) identified fire protection issues at an appropriate threshold and ensured these issues were entered into the licensee's problem identification and resolution program.

In addition, the inspectors' review and assessment focused on the licensee's post-fire safe shutdown systems for selected risk-significant fire areas. Inspector emphasis was placed on determining that the post-fire safe shutdown capability and the fire protection features were maintained free of fire damage to ensure that at least one post-fire safe shutdown success path was available. The inspection was performed in accordance with U. S. Nuclear Regulatory Commission (NRC) Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," dated April 21, 2006. The NRC regulatory oversight process IP used a risk-informed approach for selecting the fire areas and/or fire zones and attributes to be inspected. The inspectors with assistance from a senior reactor analyst used the licensee's Individual Plant Examination for External Events to select several risk-significant areas for detailed inspection and review. Documents reviewed are listed in the Attachment to this report.

The fire areas and/or fire zones selected for review during this inspection are listed below and constituted three inspection samples as defined in IP 71111.05T.



<u>Fire Zone</u>	<u>Description</u>
4D1	Unit 1 Cable Spreading Room
4E1	Unit 1 Auxiliary Electric Room
4F3	Auxiliary Building, Ground Floor (Unit 1 portion)

.2 Shutdown from Outside Main Control Room

a. Inspection Scope

The inspectors reviewed the functional requirements identified by the licensee as necessary for achieving and maintaining hot shutdown conditions to ensure that at least one post-fire safe shutdown success path was available in the event of fire in each of the selected fire areas and for alternative shutdown in the case of a fire in the Unit 1 auxiliary electric room requiring shutdown actions outside the control room. The inspectors reviewed the plant systems required to achieve and maintain post-fire safe shutdown to determine if the licensee had properly identified the components and systems necessary to achieve and maintain safe shutdown conditions for each fire area selected for review. Specifically, the review was performed to determine the adequacy of the systems selected for reactivity control, reactor coolant inventory makeup, reactor heat removal, process monitoring, and support system functions. The review also included the fire safe shutdown analysis to ensure that all required components in the selected systems were included in the licensee's safe shutdown analysis.

The inspectors reviewed the licensee's post-fire safe shutdown analysis, normal and abnormal operating procedures, piping and instrumentation drawings, electrical drawings, their updated final safety analysis report, and other supporting documents to verify that hot and cold shutdown could be achieved and maintained from outside the control room for a fire in the Unit 1 auxiliary electric room that relies on shutdown from outside the control room. This review included verification that shutdown from outside the control room could be performed both with and without the availability of offsite power.

The inspectors also examined the operators' ability to perform the necessary manual actions for achieving safe shutdown by reviewing post-fire shutdown procedures, the accessibility of safe shutdown equipment, and the available time for performing the actions.

The inspectors reviewed the updated final 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

No findings of significance were identified.

### .3 Protection of Safe Shutdown Capabilities

#### a. Inspection Scope

For each of the selected fire areas, the inspectors reviewed the fire hazards analysis, safe shutdown analysis, and supporting drawings and documentation to verify that safe shutdown capabilities were properly protected.

The inspectors reviewed the licensee procedures and programs for the control of ignition sources and transient combustibles to assess their effectiveness in preventing fires and in controlling combustible loading within limits established in the fire hazards analysis. The inspectors performed plant walkdowns to verify that protective features were being properly maintained and administrative controls were being implemented.

The inspectors also reviewed the licensee's design control procedures to ensure that the process included appropriate reviews and controls to assess plant changes for any potential adverse impact on the fire protection program and/or post-fire safe shutdown analysis and procedures.

#### b. Findings

##### (1) Unauthorized Transient Combustibles

Introduction: A finding of very low safety significance and associated Non-Cited Violation (NCV) of Technical Specifications was identified by the inspectors for the failure to implement a fire protection program procedure for combustible controls. Specifically, the inspectors identified three examples where transient combustible materials were staged adjacent to cable risers contrary to Procedure OP-AA-201-009, "Control of Combustible Material," Revision 7.

Description: On October 22, 2008, the inspectors identified a plastic chair staged adjacent to cable risers in the auxiliary building. Specifically, the plastic chair was located between two cable risers and was less than two feet from cable risers containing safety-related cables. The licensee placed the issue into their corrective action program (Action Request (AR) 00834512, "NRC Identified Combustibles During Walkdown with FP Engineer") and subsequently removed the chair. On November 4, 2008, the inspectors identified an unattended fiberglass cart with rags and tools in the upper tray adjacent to a cable riser containing emergency shutdown system cables (AR 00841326, "NRC ID: Transient Combustible Near Vertical Power Riser"). On November 6, 2008, the inspectors identified a black foam sheet of insulation material, approximately two feet square, left behind and adjacent to a cable riser containing reactor protection system cables (AR 00841490, "NRC Triennial FP Inspection Walkdown"). The licensee initiated corrective action by removing the transient combustible material. Additionally, the licensee performed an extent of condition review and documented their findings in their corrective action program (AR 00841673, "Transient Combustible Material Extent of Condition Walkdown").

Procedure OP-AA-201-009 was the site procedure for combustible controls which, in part, implemented the site fire protection program. Procedure OP-AA-201-009, Section 4.4.2, Paragraph 6, directed licensee personnel to avoid staging exposed

Class A combustible material immediately adjacent to (i.e., within approximately three feet) cable risers. The inspectors noted that National Fire Protection Association (NFPA) 10, "Standard for Portable Fire Extinguishers," defined Class A fires as fires in ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics. As such, the inspectors considered the identified materials to be Class A materials located in manner contrary to site implementing procedures for the fire protection program.

Analysis: The inspectors determined that staging combustible materials adjacent to cable risers was contrary to site implementing procedures for the fire protection program and was a performance deficiency. Specifically, the inspectors identified three examples where Class A combustible materials were staged near cable risers was contrary to Procedure OP-AA-201-009.

The finding was determined to be more than minor because the finding was similar to Inspection Manual Chapter (IMC) 0612, Appendix E, Example 4.k. The Class A transient combustible materials (i.e., the chair, the cart, and the foam insulation) were not in approved temporary storage locations approved by an engineering evaluation. Specifically, the transient combustibles were located within the zone of influence for a 70 kiloWatt fire for the thermoset cables located within the vertical cable risers (IMC 0609, Appendix F, "Fire Protection Significance Determination Process," dated February 28, 2005, Table 2.3.2). Consequently, the transient combustibles created credible fire scenarios that could affect equipment important to safety (such as the safety-related cables and/or cables required for safe shutdown, within the vertical cable risers). Therefore, this performance deficiency impacted the Initiating Events Cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during plant operations.

The inspectors reviewed IMC 0609, Appendix A, and determined that since the finding affected administrative controls for fire protection, a significance determination evaluation under IMC 0609, Appendix F, was required. The inspectors completed a significance determination of this issue using IMC 0609, Appendix F, Attachment 2, "Degradation Rating Guidance Specific to Various Fire Protection Program Elements," dated February 28, 2005. The inspectors determined that the staging of Class A combustibles was a low degradation finding against the combustible controls program because the identified materials would not cause a fire from existing sources of heat or electrical energy. Question 1 of IMC 0609, Appendix F, Task 1.3.1, "Qualitative Screening for All Finding Categories," showed that the finding was of very low safety significance (Green) due to the low degradation rating.

This finding has a cross-cutting aspect in the area of Human Performance for the Work Practices component because the licensee did not define and effectively communicate expectations regarding procedural compliance and personnel failed to follow procedures. Specifically, multiple examples were identified where transient combustibles were staged contrary to site procedures. (Example H.4(b)).

Enforcement: Technical Specification, Section 5.4.1 required, in part, that written procedures shall be established, implemented, and maintained for fire protection program implementation. The licensee established Procedure OP-AA-201-009 as the implementing procedure for combustible controls for their fire protection program. Section 4.4.2, Paragraph 6, of Procedure OP-AA-201-009 directed licensee personnel to

avoid staging exposed Class A combustible material immediately adjacent to (i.e., within approximately three feet) cable risers.

Contrary to the above, On October 22, 2008; November 4, 2008; and November 6, 2008, the licensee failed to implement a procedure for fire protection program implementation in that Class A combustible materials were staged adjacent to cable risers contrary to OP-AA-201-009. Specifically, a plastic chair was located less than two feet from cable risers containing reactor protection system cables (October 22, 2008), an unattended fiberglass cart with rags and tools in the upper tray was adjacent to a cable riser containing emergency shutdown system cables (November 4, 2008), and a black foam sheet of insulation material was left behind and adjacent to a cable riser containing reactor protection system cables (November 6, 2008). Once identified, the licensee removed the transient combustible materials and entered the issue into their corrective action program (AR 00834512, AR 00841326, and AR 00841490). 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 an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 05000373/2008007-01(DRS); 05000374/2008007-01(DRS)).

#### .4 Passive Fire Protection

##### a. Inspection Scope

For the selected fire areas, the inspectors evaluated the adequacy of fire area barriers, penetration seals, fire doors, electrical raceway fire barriers, and fire rated electrical cables. The inspectors observed the material condition and configuration of the installed barriers, seals, doors, and cables. The inspectors reviewed approved construction details and supporting fire tests. In addition, the inspectors reviewed license documentation, such as NRC safety evaluation reports, and deviations from NRC regulations and the National Fire Protection Association codes to verify that fire protection features met license commitments.

The inspectors walked down accessible portions of the selected fire areas to observe material condition and the adequacy of design of fire area boundaries (including walls, fire doors, and fire dampers) to ensure they were appropriate for the fire hazards in the area.

The inspectors reviewed the installation, repair, and qualification records for a sample of penetration seals to ensure the fill material was of the appropriate fire rating and that the installation met the engineering design.

##### b. Findings

No findings of significance were identified.

#### .5 Active Fire Protection

##### a. Inspection Scope

For the selected fire areas, the inspectors evaluated the adequacy of fire suppression and detection systems. The inspectors observed the material condition and configuration of

the installed fire detection and suppression systems. The inspectors reviewed design documents and supporting calculations. In addition, the inspectors reviewed license basis documentation, such as, NRC safety evaluation reports, deviations from NRC regulations, and the National Fire Protection Association codes to verify that fire suppression and detection systems met license commitments.

b. Findings

(1) Failure to Provide a Sprinkler System for Fire Zone 4F3

Introduction: A finding of very low safety significance and associated NCV of license conditions 2.C(25) and 2.C(15) for Units 1 and 2, respectively, was identified by the inspectors for the failure to install a sprinkler system in Fire Zone 4F3. Specifically, the licensee had installed a pre-action spray system above the suspended ceiling in Fire Zone 4F3 instead of a pre-action sprinkler system as specified by the Fire Protection Report.

Description: Fire Zone 4F3 was centrally located on the ground floor of the auxiliary building. In addition to serving as a chemistry laboratory area, the zone served as a cable spreading area for Division I cables for both units. The cable spreading area was located above the suspended ceiling for the chemistry laboratory facilities.

As part of licensing amendment 49, dated May 1980, the license committed to provide an automatic sprinkler system for the cable concentration above the suspended ceiling in this area. Additionally, Section H.3.4.18, "Auxiliary Building Ground Floor – Fire Zone 4F3," of the LaSalle County Station Fire Protection Report stated "A pre-action sprinkler system is located above the suspended ceiling to protect the cabling located there." The inspectors noted that sprinkler systems generally have sprinklers located near the ceiling. The code of record for sprinklers used at LaSalle County Station was NFPA 13–1976, "Standard for the Installation of Sprinkler Systems." The suppression system installed above the suspended ceiling for Fire Zone 4F3 was not a sprinkler system and did not meet the requirements of NFPA 13–1976. Specifically, Section 3–15.2.1 of NFPA 13–1976 required that listed sprinklers be used. The licensee's installation used spray nozzles. Section 4–3.2.1 of NFPA 13–1976 specified that deflectors of sprinklers be located 1 to 16 inches below floor decks (i.e., ceilings) for beam and girder construction. During walkdowns of the Unit 1 portion of Fire Zone 4F3, the inspectors did not observe any sprinklers or spray nozzles within 16 inches of the ceiling. The inspectors noted that the suppression system installed was a spray system for the majority of cable trays located above the suspended ceiling. Spray nozzles, connected to a water piping system, were installed between or above cable trays to provide coverage for the majority of cable trays installed above the suspended ceiling. The spray nozzles had 250 degree Fahrenheit thermal elements with deflectors having a 65 degree conical spray pattern. The inspectors consulted with the Fire Protection Branch within the Office of Nuclear Reactor Regulation (NRR) on this issue and NRR concurred that the installed system did not meet the licensing basis for LaSalle County Station.

The inspectors noted that sprinkler systems activate through plumes from a fire hitting a ceiling with the resulting ceiling jets activating the nearest sprinkler head. As such, sprinkler systems provide general area fire suppression and activate relatively quickly in the event of a fire. In comparison, spray systems are generally designed with open (i.e., without thermal elements) spray nozzle heads and use a separate detection system for

activation. As such, spray systems are typically used to protect specific components from fire (through activation of a separate detection system). In comparison, the spray system installed in Fire Zone 4F3 was a pre-action system, which used closed heads for the spray nozzles. The detection system for the spray system would cause a valve to open admitting water to the spray piping. However, individual spray nozzle heads would also have to be activated through localized heat for any water suppression to be provided. To activate individual spray nozzles, either the overall hot gas layer temperatures for the area would have to exceed 250 degrees Fahrenheit or a fire would have to be located in a cable tray near a spray nozzle. The inspectors concluded that there typically would be considerable delay in activation of the pre-action spray system installed versus a properly designed sprinkler system for the area. As such, the inspectors determined that a closed-head spray system would not provide an equivalent level of protection as a sprinkler system. Specifically, the installed spray system was less capable than a sprinkler system because a fire would be permitted to grow to a larger size and cause more damage as a result of delayed actuation.

During a partial walkdown of the suppression system, the inspectors identified one section of safety-related cable tray, which did not have spray coverage (cable tray nodes 232C, 232E, and 234E). The inspectors confirmed that the cable tray sections contained cables, which supported safety-related emergency core cooling systems. The licensee presented the argument that localized lack of coverage was acceptable because the purpose was to only control a postulated fire and to prevent its spread to adjacent safety-related areas. The licensee noted that the NRC had based acceptance of the spray systems for the cable spreading rooms, in part on, this argument as documented in Section 9.5.1.2 of NUREG-0519, Supplement 3, "Safety Evaluation Report related to the operation of LaSalle County Station, Units 1 and 2." The inspectors noted that the cable spreading rooms had overhead sprinkler systems in addition to the spray systems installed for the cable trays. The argument concerning the purpose being only to control postulated fires to prevent spread to adjacent areas only applied to specific deviations from NFPA 15-1973, "Standard for Water Spray Fixed Systems for Fire Protection," for the cable spreading room spray systems and was not applicable to other deficiencies or Fire Zone 4F3. Additionally, Section 9.5.1.2 of NUREG-0519, Supplement 1, and Section H.3.4.18 of the Fire Protection Report indicated that the suppression system for Fire Zone 4F3 was for the cables above the ceiling (as opposed to controlling a postulated fire and preventing its spread to adjacent safety-related areas).

The licensee entered issues relating to spray coverage into their corrective action system as AR 00840401, "NRC Identified Inspection Findings in Aux Bldg Ceiling," and AR 00855527; "Rotate FP Water Spray Nozzle to Optimize Spray Pattern," dated December 12, 2008. The licensee entered the issue of the installed spray system not meeting the licensing basis description of a sprinkler system into their corrective action system as AR 00849044, "NRC Potential Finding; Chemistry Overlab FP System," dated November 21, 2008.

Analysis: The inspectors determined that the failure to install a sprinkler system in Fire Zone 4F3 was contrary to Section H.3.4.18 of the LaSalle County Station Fire Protection Report and was a performance deficiency.

The finding was determined to be more than minor because the failure to install a sprinkler system was associated with the Mitigating Systems cornerstone attribute of Protection Against External Factors (Fire) and affected the cornerstone objective of ensuring capability

of systems to respond to initiating events such as fire. Specifically, the installed spray system was less capable than a sprinkler system because a fire would be permitted to grow to a larger size and cause more damage as a result of delayed system actuation.

In accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 3b the inspectors determined the finding degraded the fire protection defense-in-depth strategies. Therefore, screening under IMC 0609, Appendix F, "Fire Protection Significance Determination Process," was required. The inspectors performed a Phase 2 analysis. The inspectors determined that the high transient combustibles and hot work frequencies ( $1.7 \times 10^{-3}$  per year and  $6.9 \times 10^{-4}$  per year, respectively) from IMC 0609, Appendix F, Attachment 4, "Fire Ignition Source Mapping Information: Fire Frequency, Counting Instructions, Applicable Fire Severity Characteristics, and Applicable Manual Fire Suppression Curves," were applicable due to the presence of the normally occupied chemistry laboratory and heat producing equipment in the area. The inspectors also determined that, though Division I equipment would be unavailable, at a minimum, the following equipment and capabilities would be available: high pressure core spray, depressurization capability, one train of low pressure injection, one train of containment heat removal capability, containment venting capability, survival of injection path following containment failure, and late depressurization with one train of injection. Based on review of the Transients worksheet from the "Risk-Informed Inspection Notebook for LaSalle County Station, Units 1 and 2," Revision 2.1a, the inspectors determined that a conditional core damage probability of  $1 \times 10^{-4}$  could be credited due to remaining mitigation capability. For ease of analysis, the inspectors did not credit any suppression capability. Based on the above information and Step 2.9 of IMC 0609, Appendix F, the inspectors determined that the finding was of very low safety significance (i.e., Green) due to remaining mitigating system capability.

The inspectors did not identify a cross-cutting aspect associated with this finding.

Enforcement: License conditions 2.C(25) and 2.C(15) for Units 1 and 2, respectively, required the licensee to implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report (FSAR) and as approved through Safety Evaluation Reports. Appendix H, "Fire Hazards Analysis," of the Updated Final Safety Analysis Report, stated that the appendix had to be relocated to the LaSalle County Station Fire Protection Report. Section H.3.4.18, "Auxiliary Building Ground Floor – Fire Zone 4F3," of the LaSalle County Station Fire Protection Report stated that a pre-action sprinkler system was provided for the cables above the suspended ceiling. The LaSalle County Station Fire Protection Report listed NFPA 13–1976 as the code of record for sprinkler systems. Section 3–15.2.1 of NFPA 13–1976 required that listed sprinklers be used. Section 4–3.2.1 of NFPA 13–1976 specified that deflectors of sprinklers be located 1 to 16 inches below floor decks for beam and girder construction.

Contrary to the above, as of November 21, 2008, the licensee failed to provide a pre-action sprinkler system for Fire Zone 4F3. Specifically, the suppression system installed in Fire Zone 4F3 was a spray system and did not meet the requirements for a sprinkler system as described in NFPA 13–1976. The installed suppression system did not use listed sprinklers and no sprinklers were within 16 inches of below the floor deck. Because this violation was of very low safety significance and it was entered into the licensee's corrective action program as AR 00849044, this violation is being treated as an NCV, consistent with

Section VI.A.1 of the NRC Enforcement Policy (NCV 05000373/2008007-02; 05000374/2008007-02).

.6 Protection from Damage from Fire Suppression Activities

a. Inspection Scope

For the selected fire areas, the inspectors verified that redundant trains of systems required for hot shutdown would not be subject to damage from fire suppression activities or from the rupture or inadvertent operation of fire suppression systems including the effects of flooding. The inspectors conducted walkdowns of each of the selected fire areas to assess conditions, such as, the adequacy and condition of floor drains, equipment Elevations, and spray protection.

b. Findings

No findings of significance were identified.

.7 Alternative Shutdown Capability

a. Inspection Scope

The inspectors reviewed the licensee's systems required to achieve alternative safe shutdown to determine if the licensee had properly identified the components and systems necessary to achieve and maintain safe shutdown conditions. 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.

The team conducted selected area walkdowns to determine if operators could reasonably be expected to perform the alternate safe shutdown procedure actions and that equipment labeling was consistent with the alternate safe shutdown procedure. 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

.8 Circuit Analyses

a. Inspection Scope

The inspectors reviewed the licensee's post-fire safe shutdown analysis to verify that the licensee had identified both required and associated circuits that may impact safe shutdown. On a sample basis, the inspectors verified that the cables of equipment required achieving and maintaining hot shutdown conditions, in the event of fire in the selected fire zones, had been properly identified. In addition, the inspectors verified that these cables had either been adequately protected from the potentially adverse effects of fire damage, mitigated with approved manual operator actions, or analyzed to show that fire-induced faults



(e.g., hot shorts, open circuits, and shorts to ground) would not prevent safe shutdown. In order to accomplish this, the inspectors reviewed electrical schematics and cable routing data for power and control cables associated with each of the selected components.

In addition, on a sample basis, the adequacy of circuit protective coordination for the safe shutdown systems' electrical power and instrumentation circuit protection were evaluated. Also, on a sample basis, a cable tray that contains both safe shutdown and non-safe shutdown cables was evaluated for proper circuit protection to ensure that cables are protected by a proper protective device in order to preclude common enclosure concerns.

b. Findings

No findings of significance were identified.

.9 Communications

a. Inspection Scope

The inspectors reviewed, on a sample bases, the adequacy of the communication system to support plant personnel in the performance of alternative safe shutdown functions and fire brigade duties. The inspectors verified that plant telephones, page systems, sound powered phones, and radios were available for use and maintained in working order. The inspectors reviewed the electrical power supplies and cable routing for these systems to verify that either the telephones or the radios would remain functional following a fire.

b. Findings

No findings of significance were identified.

.10 Emergency Lighting

a. Inspection Scope

The inspectors performed a plant walkdown of selected areas in which a sample of operator actions would be performed in the performance of alternative safe shutdown functions. As part of the walkdowns, the inspectors focused on the existence of sufficient emergency lighting for access and egress to areas and for performing necessary equipment operations. The locations and positioning of the emergency lights were observed during the walkdown and during review of manual actions implemented for the selected fire areas.

b. Findings

No findings of significance were identified.

.11 Cold Shutdown Repairs

a. Inspection Scope

The inspectors reviewed the licensee's procedures to determine whether repairs were required to achieve cold shutdown and to verify that dedicated repair procedures, equipment, and material to accomplish those repairs were available onsite. The inspectors

also evaluated whether cold shutdown could be achieved within the required time using the licensee's procedures and repair methods. The inspectors also verified that equipment necessary to perform cold shutdown repairs was available onsite and properly staged.

b. Findings

No findings of significance were identified.

.12 Compensatory Measures

a. Inspection Scope

The inspectors conducted a review to verify that compensatory measures were in place for out-of-service, degraded or inoperable fire protection and post-fire safe shutdown equipment, systems, or features (e.g., detection and suppression systems, and equipment, passive fire barriers, pumps, valves or electrical devices providing safe shutdown functions or capabilities). The inspectors also conducted a review on 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**

4OA6 Management Meetings

.1 Exit Meeting Summary

On November 21, 2008, the inspectors presented the inspection results to Mr. D. Rhoades, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee

D. Rhoades, Plant Manager  
E. Ballou, Mechanical Design Engineer  
J. Bashor, Engineering Director  
R. Dudley, Operations  
W. Hilton, Design Engineering Manager  
J. Houston, Regulatory Assurance  
K. Ihnen, Nuclear Oversight Manager  
S. Marik, Operations Director  
J. Miller, Mechanical and Structural Supervisor  
T. Simkin, Regulatory Assurance Manager  
M. Taylor, Corporate Fire Protection Engineer  
J. Vergara, Regulatory Assurance  
E. Zacharias, Plant Electrical Systems Supervisor

#### Nuclear Regulatory Commission

R. Daley, Branch Chief, Division of Reactor Safety  
G. Roach, Senior Resident Inspection, LaSalle County Station

### LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

#### Opened

05000373/2008007-01 05000374/2008007-01	NCV	Unauthorized Transient Combustibles
05000373/2008007-02 05000374/2008007-02	NCV	Failure to Provide a Sprinkler System for Fire Zone 4F3

#### Closed

05000373/2008007-01 05000374/2008007-01	NCV	Unauthorized Transient Combustibles
05000373/2008007-02 05000374/2008007-02	NCV	Failure to Provide a Sprinkler System for Fire Zone 4F3

## 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 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.

### 1R05 Fire Protection Calculations and Analyses (71111.05T)

L-000776; LaSalle Combustible Load for Fire Zone 4F3; Revision 5

L-001726; Hydraulic Analysis to Determine the Adequacy of the Service Water Pumps to Function as Fire Pumps; Revision 2

L-001947; Safe Shutdown Control Circuit Breaker-Fuse Coordination; Revision 01

L-002771; GL 86-10 Operator Action Evaluation for Fuse Pulling in AEER and Valve Manipulation in Reactor Building for Post Fire Safe Shutdown; Revision 0

L-003289; LaSalle Fire Detector Smoke Stratification Justification; Revision 0

EC 0000331385; Safe Shutdown Control Circuit Breaker-Fuse Coordination Calculation Revision; dated December 20, 2001

GE-NE-A1300384-43-01; LaSalle County Station Power Uprate Project, Task 611: Appendix R Fire Protection [Proprietary]; dated September 1999

Schirmer Engineering Corporation: Automatic Sprinkler System Calculation, LaSalle County Station; dated January 26, 1984

### Corrective Action Documents

AR 00369313; Multiple Spurious Actuations of ADS Valves; dated September 1, 2005

AR 00578440; Replace Smoke Detector with New Style Detector; dated January 12, 2007

AR 00632819; Fireproofing Removed Requiring Compensatory Actions; dated May 23, 2007

AR 00637145; "0B" Diesel FP Activities; dated June 5, 2007

AR 00659506; Two Different Battery Models Installed in B Diesel Fire Pump; dated August 10, 2007

AR 00671437; Overlab FP System – Could not Test All Detectors; dated September 14, 2008

AR 00704946; NOS ID Fire Doors not Inspected Under Proper Surveillance; dated November 29, 2007

AR 00704957; NOS ID Fire Door Sealing Device does not Meet Hour Rating; dated November 29, 2007

AR 00711394; 1FP01C Still Short Cycling; dated December 13, 2007

AR 00716061; Fire Door 284 Door Latch not Operating Properly; dated December 28, 2007

AR 00747573; Fire Line Pipe Corrosion; dated March 10, 2008

AR 00750853; Fire Doors/Barrier Reclassification; dated March 17, 2008

AR 00761675; 0B Diesel Fire Pump Troubleshooting; dated April 10, 2008

AR 00783879; Local Alarm will not Sound – Building 33; dated June 6 2008

AR 00836266; Declining Trend in Transient Combustibles; dated October 27, 2008

AR 00841673; Transient Combustible Material Extent of Condition Walkdown; dated November 7, 2008

CR L2001-02263; Potential Spurious Operations During CR or AEER Fire; dated April 5, 2001

#### Corrective Action Documents Initiated as a Result of Inspection

AR 00834512; NRC Identified Combustibles During Walkdown with FP Engineer; dated October 22, 2008

AR 00835086; NRC Identified Chair Not Removed Until Following Morning; dated October 23, 2008

AR 00837934; NRC TRI: Passport D030 Discrepancy for DFP Pressure SW; dated October 30, 2008

AR 00839030; NRC Identified Issues – LaSalle Triennial Inspection; dated October 30, 2008

AR 00840401; NRC Identified Inspection Findings in Aux Bldg Ceiling; dated November 4, 2008

AR 00840264; FP Report Document Problem – LaSalle Triennial Inspection; dated November 4, 2008

AR 00840339; NRC Triennial Fire Protection Inspection; dated November 4, 2008

AR 00840381; NRC Identified SLICE (Cable Analysis) Discrepancies; dated November 4, 2008

AR 00840833; NRC Triennial Inspection-Equip. Number Error on 1E-1-4220AC; dated November 5, 2008

AR 00841245; NRC Triennial: ELBP 1LL142E North Side Fixed Lamp Aiming; dated November 6, 2008

AR 00841304; NRC Triennial Inspection – FPR H.4.6.2 Discrepancy; dated November 6, 2008

AR 00841326; NRC ID: Transient Combustible Near Vertical Power Riser; dated November 6, 2008

AR 00841364; NRC FP Triennial Inspection – Calc L-001947 Recommendation; dated November 6, 2008

AR 00841433; NRC Triennial: FP Related Drawing Deficiencies; dated November 6, 2008

AR 00841355; NRC Triennial: Smoke from AEER Fire Affecting Operator Actions; dated November 6, 2008

AR 00841458; NRC Triennial: LOA-FX-101 – Fuse Orientation Description; dated November 6, 2008

AR 00841490; NRC Triennial FP Inspection Walkdown; dated November 6, 2008

AR 00841494; NRC Triennial FP Inspection Walkdown; dated November 6, 2008

AR 00842109; NRC FP Triennial: DFP Start Sequencing Compliance with NFPA; dated November 7, 2008

AR 00843614; NRC FP Inspection – FZ 4F3 Hydraulic Calc Retrieval Difficult; dated November 11, 2008

AR 00846249; NRC Triennial Inspection – Discrepancy on Dwg 1E-2-4601BA; dated November 17, 2008

AR 00846419; NRC Fire Protection Triennial Inspection; dated November 18, 2008

AR 00846433; 2008 NRC FP Triennial – Drawing Discrepancy 1E-4220AQ; dated November 18, 2008

AR 00846729; NRC Triennial Inspection-Description of Codes Not Available; dated November 18, 2008

AR 00846731; NRC Identified SRV Issue During FP Triennial Inspection; dated November 18, 2008

AR 00846760; NRC Fire Protection Triennial; dated November 18, 2008

AR 00846783; NRC Triennial: Smoke Detectors Affect Any Other Functions; dated November 18, 2008

AR 00847185; FPR Table H.4-59 and Table H.4-60 Incorrectly List Cable 1NB335 As Supporting Control Room Recorder 1B21-R884A; dated November 19, 2008

AR 00847328; NRC Triennial Inspection-Discrepancy on S/D 1E-2-4220CH; dated November 19, 2008

AR 00847337; NRC Triennial: FP Related Drawing Deficiencies; dated November 19, 2008

AR 00847578; NRC FP Triennial - The Safe Shutdown Cable Routing Drawings Incorrectly Show that Cable 1RH360 is Routed in Fire Zone 4E1-1; dated November 20, 2008

AR 00847709; NRC FP Inspection: AEER Roll-Up Door Evaluation Canceled; dated November 20, 2008

AR 00848042; NRC FP Triennial – SLICE Fire Zone Data “Reference Only”; dated November 21, 2008

AR 00848063; NRC FP Triennial Inspection: FP Spray Nozzle Orifice Size; dated November 20, 2008

AR 00847728; NRC Identified Sprinkler Heat NFPA Code Deviation; dated November 20, 2008

AR 00847809; NRC Triennial: LOA-FX-101(201) AEER Validation Order; dated November 20, 2008

AR 00846788; NRC FP Triennial: DFP Start Sequencing, Timing; dated November 18, 2008

AR 00849044; NRC Potential Finding, Chemistry Overlap FP System; dated November 21, 2008

AR 00855527; Rotate FP Water Spray Nozzle to Optimize Spray Pattern; dated December 12, 2008

### Drawings

15; Cable Spreading Rooms Supervised Pre-action Systems; Revision 10

16A; Auxiliary Building Elevation 749'0" Cable Spreading Room Details & Section

1E-1-3445; Electrical Installation Auxiliary Building Auxiliary Equipment Room Plan EL. 731'-0" Col. 12-15 & J-N; Revision AU

1E-1-3465; Electrical Installation Control Room Plan EL. 768'-0" Col. 12-15 & J-N; Revision Z

1E-1-3663; Cable Pan Routing Aux. Bldg. Plan EL. 710'6" Cols 12-15; Revision S

1E-1-3694M, Sheet 1; Safe Shutdown Cable Routing Aux. Bldg. Plan El. 731'-0" Cols. 12-15; Revision; A

1E-1-3694M, Sheet 2; Safe Shutdown Cable Routing Schedules for Aux. Bldg. Plan EL. 731'-0" Cols. 12-15; Revision; A

1E-1-3694P, Sheet 1; Safe Shutdown Cable Routing Schedules for Aux. Bldg. Plan EL. 749'-0" Cols. 12-15; Revision; A

1E-1-3694P, Sheet 2; Safe Shutdown Cable Routing Schedules for Aux. Bldg. Plan EL. 749'-0" Cols. 12-15; Revision; A

1E-1-4018ZE; Loop Schematic Diagram – Containment Monitoring System CM, Part 5; Revision Q

1E-1-4201AA; Schematic Diagram – Auto Depressurization System “NB” (B21C) Part 1

1E-1-4201AC; Schematic Diagram – Auto Depressurization System “NB” (B21C) Part 3; Revision AA

1E-1-4201AD; Schematic Diagram – Auto Depressurization System “NB” (B21C) Part 4; Revision AC

1E-1-4201AE; Schematic Diagram – Auto Depressurization System “NB” (B21C) Part 5; Revision V

1E-1-4201AF; Schematic Diagram – Auto Depressurization System “NB” (B21C) Part 6; Revision AA

1E-1-4201AG; Schematic Diagram – Auto Depressurization System “NB” (B21C) Part 7; Revision

1E-1-4201AJ; Schematic Diagram – Auto Depressurization System “NB” (B21C) Part 9; Revision G

1E-1-4201AK; Schematic Diagram – Auto Depressurization System “NB” (B21C) Part 10; Revision F

1E-1-4203AK; Schematic Diagram – Main Steam/Nuclear Boiler System NB (B21), Part 10; Revision Y

1E-1-4214AA; Schematic Diagram – Remote Shutdown System “RS” Part 1; Revision K

1E-1-4220BD; Schematic Diagram – Residual Heat Removal System RH (E12) Part 28; Revision N

1E-1-4220BX; Schematic Diagram – Residual Heat Removal System RH (E12) Part 46; Revision R

1E-1-4220BY; Schematic Diagram – Residual Heat Removal System RH (E12) Part 47; Revision K

1E-1-4220CH; Schematic Diagram – Residual Heat Removal System RH (E12) Part 56; Revision M

1E-1-4379AC; Internal Wiring Diagram – 480V MCC Detail; Revision K



1E-1-4391AB; Internal/External Wiring Diagram – Reactor Building 480V MCC 136Y-1, Part 2; Revision W

1E-1-4442AA; Internal/External Wiring Diagram – Automatic Depressurization Channel “A” Relay Vertical Board 1H13-P628, Part 1; Revision R

1E-1-4622AB; Internal/External Wiring Diagram – 125VDC Distr. Bus 1B and 125VDC Dist. Panel 112Y; Revision T

1E-1-4622AC; Internal/External Wiring Diagram – Automatic Depressurization Channel “A” Relay Vertical Board 1H13-P628, Part 2; Revision AA

1E-1-4622AD; Internal/External Wiring Diagram – Automatic Depressurization Channel “A” Relay Vertical Board 1H13-P628; Revision J

1E-1-4622AF; Internal/External Wiring Diagram – Automatic Depressurization Channel “A” Relay Vertical Board 1H13-P628, Part 3; Revision G

1E-1-4624AB; Internal/External Wiring Diagram – Automatic Depressurization Channel “B” Relay Vertical Board 1H13-P631; Revision AB

1E-1-4658AH; Internal/External Wiring Diagram – Remote Shutdown Panel 1C61-P001, Part 6; Revision Z

1E-1-4696AB; Internal/External Wiring Diagram – ADS/SRV Valves Aux Relay Vertical Board Div. 1, Panel 1H13-P644; Revision K

1E-1-4696AC; Internal/External Wiring Diagram – ADS/SRV Valves Aux Relay Vertical Board Div. 1, Panel 1H13-P644; Revision F

1E-1-4697AB; Internal/External Wiring Diagram – ADS/SRV Valves Aux Relay Vertical Board Div. 2, Panel 1H13-P645; Revision P

1E-1-4697AC; Internal/External Wiring Diagram – ADS/SRV Valves Aux Relay Vertical Board Div. 2, Panel 1H13-P645; Revision G

81-78483; Cable Trays over Lab ceiling Unit 1 & 2, EL. 710’6” Supervised Pre-action System; Revision 1, Figure 9.5-1, Sheet 15 of 41; Fire Protection System EL 749’0”; Revision 17

Figure 9.5-1; Sheet 17 of 41; Fire Protection System EL 740’0”; Revision 17

Figure 9.5-1; Sheet 22 of 41; Fire Protection System EL 710’6”; Revision 17

Supervised Pre-action Systems; Revision 10

## Miscellaneous

LSCS-FPR; LaSalle Station Fire Protection Report- Appendix H.4, "Safe Shutdown Analysis"; Revision 3

DBD-LS-E09; LaSalle Units 1 and 2, Electrical Separation, Table 4.4.1-1 "Redundant and Non-Redundant Divisions"; Revision 0

DBD-LS-E09; LaSalle Units 1 and 2, Electrical Separation, Table 4.4.1-2 "Electrical Raceway Separation Design Requirements and Design Basis"; Revision 0

SLICE Version 7.6; LaSalle Unit 1 Cable Transaction Report (S102); 1986-1999

SLICE Version 7.6; LaSalle Unit 1 Fire Shutdown Cables/Fire Zone Report (S115); 1986-1999

SLICE Version 7.6; LaSalle Unit 1 Fire Zones/Fire Shutdown Cable Report (S116); 1986-1999

SLICE Version 7.6; LaSalle Unit 1 Fire Protection Safe Shutdown Discrepancy List Report (S143); 1986-1999

SLICE Version 7.6; LaSalle Unit 1 Fire Protection Safe Shutdown Discrepancies – Unresolved Report (S143); 1986-1999

AR 707263; LaSalle Station Triennial Fire Protection Inspection Preparatory Self Assessment; July/August 2008

AR 576593; LaSalle Station Fire Protection Program Audit Report Audit NOSA-LAS-07-09; dated December 5, 2007

AR 219447-05; LaSalle Station Focus Area Self-Assessment Report; dated June 2005

1C-7-0784-002; Actions Necessary to Address Valve Failures or Spurious Operations; dated April 2, 1985

CT.5ENG.4, Appendix R Spurious Operation Analysis, Phase 1 Report (AT-144623-01); Revision 0

## Procedures

CC-AA-206; Exelon Nuclear-Fuse Control; Revision 5

LOA-FP-101; Unit 0 Fire Protection System Abnormal; Revision 2

LOA-FP-101; Unit 1 Fire Protection Abnormal; Revision 9

LOA-FX-101; Unit 1 Safe Shutdown with a Loss of Offsite Power and a Fire in the Control Room or AEER; Revision 13

LOA-FX-101- Attachment C; Repair of 1E12-F009, RHR Inboard Shutdown Cooling Valve; Revision 13

LOP-RH-17; Alternate Shutdown Cooling; Revision 25

LOA-SRV-101; Unit 1 Stuck Open Safety Relief Valve; Revision 5

LOS-FP-M4 U1; FP Deluge Valve Lineup 1112018-01

OP-AA-201-009; Control of Combustible Material; Revision 7

OP-MW-201-007; Fire Protection System Impairment Control; Revision 6

### Work Orders

980089736 01; Hydro Test all Fire Hoses per TS 4.7.5.4.D or Replace Fire Hose; dated August 29, 2000

00639790 01; Hydro Test all Fire Hoses per TS 4.7.5.4.D or Replace Fire Hose; dated November 14, 2005

01044223 01; Annual Inspection of FP Strainer for Cleanliness; dated June 25, 2008

00465471 01; Electrical Fire Penetration Inspection; dated January 28, 2004

960119253 01; Electrical Fire Penetration Inspection; dated August 20, 1997

980074104 01; Electrical Fire Penetration Inspection; dated October 30, 1997

99236634 01; Electrical Fire Penetration Inspection; dated January 31, 2003

112018 01; LOS-FP-M4 U1 Deluge Valve Lineup; dated June 6, 2008

849192 01; LOS-FP-R6 U-0 Cable Trays Over Labs Sprinkler Sys; dated July 13, 2007

952500 01; Overlab Cable Tray Sprinkler Sys Channel Function Test; dated November 27, 2007

859933 01; U-1 Cable Spreading Room Sprinkler Sys Channel Function Test; dated January 12, 2007

992888 01; U-1 Cable Spreading Room Sprinkler Sys Chan. Function Test, LES-FP-06; dated January 11, 2008

## LIST OF ACRONYMS USED

ADAMS	Agency Documents Access Management System
AR	Action Request
FSAR	Final Safety Analysis Report
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IPEEE	Individual Plant Examination of External Events
IR	Inspection Report
LLC	Limited Liability Corporation
NCV	Non-Cited Violation
NFPA	National Fire Protection Association
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records System
SDP	Significance Determination Process