December 9, 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
NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION
REPORT 050000373/2005013; 050000374/2005013

Dear Mr. Crane:

On October 28, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed a team inspection at the LaSalle County Station. The enclosed report documents the inspection findings which were discussed on October 28, 2005, with members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, compliance with the Commission's rules and regulations and with the conditions of your operating license. Within these areas, the inspection involved selected examination of procedures and representative records, observations of activities, and interviews with personnel. No findings were identified.

On the basis of the sample selected for review, the team concluded that, in general, problems were being properly identified, evaluated, and corrected. The team made several observations regarding the effectiveness of problem identification and resolution program implementation as detailed in the enclosed report.

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Sincerely,

/RA/

Bruce Burgess, Chief
Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report No. 050000373/2005013; 050000374/2005013

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
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REGION III

Docket No:	50-373; 50-374
License No:	NPF-11; NPF-18
Report No:	50000373/2005013; 050000374/2005013
Licensee:	Exelon Nuclear Generation Company
Facility:	LaSalle County Station, Units 1 and 2
Location:	2601 N. 21st Road Marseilles, IL 61341
Dates:	October 11 through October 28, 2005
Inspectors:	R. Lerch, Project Engineer - Team Lead D. Eskins, Resident Inspector B. Jose, Electrical Engineering Inspector
Approved by:	Bruce Burgess, Chief Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000373/2005013, 05000374/2005013; on 10/11/2005 - 10/28/2005; LaSalle County Station, Units 1 & 2; Identification and Resolution of Problems.

The inspection was conducted by two region-based inspectors and one resident inspector. No findings of significance were identified.

Identification and Resolution of Problems

In general, the plant identified issues and entered them into the corrective action process at an appropriate level. Nuclear Oversight (NOS) assessment reports identified issues with corrective action program performance. The majority of issues reviewed were properly categorized and evaluated although some evaluations were narrowly focused and ineffective. Most corrective actions reviewed were appropriately implemented and appeared to have been effective. While no findings were identified during the inspection, the inspectors observed instances where performance was not rigorous. The licensee had performance improvement initiatives in progress for the corrective action program.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

.1 Effectiveness of Problem Identification

a. Inspection Scope

The inspectors reviewed documentation from over the last 2 years including NRC inspection report findings (in the Plant Issues Matrix (PIM)), selected corrective action documents, Nuclear Oversight (NOS) assessments, operating experience reports, and trend assessments to determine if problems were being identified and entered into the corrective action program (CAP) at the proper threshold. CAP implementation, metrics, and status such as corrective action generation rates and departmental performance indicators were reviewed and discussed with the plant staff.

b. Assessment

In general, the plant identified issues and entered them into the corrective action process at an appropriate level. NOS assessment reports identified failures to generate condition reports, action requests and improper closures of CAP items. Plant staff also had identified problems in these areas and a performance improvement plan had been implemented to improve performance with implementation of the CAP. The licensee also appropriately used the CAP to document instances where previous corrective actions were ineffective or inappropriate. The inspectors' review of a sampling of industry operating experience (OPEX) reports concluded that the licensee was appropriately including the issues in the CAP. The inspectors concluded that NRC identification of several issues such as inadequacies in the licensee's response to a "frequently asked question" (FAQ) resulting in a White performance indicator and an outage hot work fire watch issue also indicated that performance could be improved in this area.

.2 Prioritization and Evaluation of Issues

a. Inspection Scope

The inspectors reviewed procedures, inspection reports, and corrective action documents to verify that identified issues were appropriately characterized and prioritized in the CAP. Evaluations documented in condition reports (CRs) were evaluated for appropriateness of depth and thoroughness relative to the significance or potential impact of each issue. Inspectors attended management meetings to observe the assignment of CR categories for current issues and to observe the review of root, apparent, and common cause analyses, and corrective actions for existing CRs. The inspectors also assessed licensee corrective actions stemming from Non-Cited Violations (NCVs) in the last 2 years.

b. Assessment

The inspectors concluded that issues were usually properly prioritized and generally evaluated well. Inspectors determined however, that the area of evaluation quality had more issues than the areas of Problem Identification or Effectiveness. Several examples of evaluation weakness were noted in licensee actions related to water intrusion into electrical conduit, hot work fire protection, and Reactor Core Isolation Cooling (RCIC) system check valve failures.

In the case of water intrusion into electrical conduit, water was discovered dripping into a safety related junction box and associated electrical panel. The licensee's engineering staff initially evaluated the issue as the result of condensation within the system. After NRC inspectors repeatedly questioned this evaluation and noted several further instances of water intrusion, the licensee investigated further and determined that corroded conduit in a roof penetration was indeed causing this water intrusion.

With respect to hot work fire protection, inspectors noted on several occasions during hot work inadequate equipment coverage and insufficient spark protection. An evaluation conducted by the licensee after a hot work induced fire, determined that insufficient enforcement and communication of fire protection standards were causal factors. However, during repairs to the Reactor Core Isolation Cooling (RCIC) system, inspectors again noted insufficient spark protection and pointed out sparks flying into a safety-related cable tray to managers present at the job site. A evaluation conducted after this event determined that an overall knowledge deficiency in hot work requirements existed among workers and managers due to procedural and training deficiencies.

In the case of the RCIC check valve, after a history of failures, the licensee's engineering staff evaluated the problem as corrosion product buildup and determined that occasional valve cleanup and replacement of internals was sufficient to preclude failures. However, after additional failures occurred, additional evaluation determined that several design issues including valve type and pipe configuration were contributing causes to these failures.

In all of the above cases, initial evaluations proved to be inadequate as demonstrated by repeat occurrences and each of these issues resulted in one or more Green findings with associated NCV's. Additionally, inspectors noted that a root cause evaluation of a circulation water pump trip occurring in January of 2005 may not have fully addressed the human performance and procedural issues with respect to maintenance risk assessment as evidenced by continuing problems in this area. This issue is discussed in further detail under "Effectiveness of Corrective Action." While generally successful, the weakness in evaluation performance is being addressed in the CAP performance improvement plan and via continuous management review.

The screening meeting and the management review committee, with the exception of the above examples, were in most cases adequate for attaining consistent, quality issue reviews.

.3 Effectiveness of Corrective Action

a. Inspection Scope

The inspectors reviewed past inspection results, selected CRs, root cause reports and common cause evaluations to verify that corrective actions, commensurate with the safety significance of the issues, were specified and implemented in a timely manner. The inspectors evaluated the effectiveness of corrective actions. The inspectors also reviewed the licensee's corrective actions for Non-Cited Violations (NCVs) documented in NRC inspection reports in the past 2 years.

b. Assessment

In general, the licensee's corrective action for the sample reviewed were appropriate and appeared to have been effective. The team noted that the licensee generated CRs when they identified a corrective action which was either inadequate or inappropriate.

However, the inspectors had several observations regarding corrective actions that were not fully implemented, not fully effective in correcting the identified issue, were narrowly focused, or did not review effectiveness in a timely manner. The ineffectiveness of corrective actions for water intrusion into electrical conduit, hot work fire protection, and RCIC system check valve failures were primarily attributed to inadequate evaluations as discussed in Section .2 above. Several additional repetitive issues were documented by the NRC during the assessment period including unauthorized entries into high radiation areas and emergency diesel generator reverse power trips.

During this inspection, the inspectors identified a minor issue for timeliness of an effectiveness review. In 2001, a Root Cause Evaluation (RCE) for a scram in September of that year, identified a Potential Transformer (PT) drawer design used by electrical bus undervoltage protective circuits as a root cause of the event. The corrective action to prevent reoccurrence for this issue involved the installation of a new PT drawer design on various buses over the next ten years. An effectiveness review to assess this corrective action was not scheduled until 2011, when this drawer modification was scheduled to be completed on all affected buses. The licensee agreed to the need to conduct interim effectiveness reviews for long term corrective actions to ensure they are assessed in a timely manner and has initiated the effectiveness review process for this modification.

A minor issue was also identified for inadequate corrective action to preclude repetition concerning weak maintenance risk assessments prior to the performance of work. In April 2001, a Unit 2 scram was caused by maintenance workers lifting and shorting energized leads. The root cause evaluation for this event determined that maintenance personnel did not adequately assess where power was originating from and what could happen if one of the leads being manipulated was inadvertently shorted. One of the corrective actions to prevent reoccurrence (CAPR) for this event was to more effectively engage work planners in initial risk assessments. This was accomplished in part by procedural changes and training. In May 2002, this CAPR was deemed ineffective during an effectiveness review (EFR) and was re-communicated to maintenance work planners. In December 2002, this issue was closed after another EFR assignment.

However, as evidenced by the following examples, the licensee continues to experience issues with assessing and controlling maintenance risk for planned work activities.

In January 2003, planned work to remove lagging on the Unit 2 Turbine Generator was not assessed for the potential to inadvertently trip the turbine due to the work's proximity to turbine bearing oil components. During the work, a chainfall used for a lift damaged the turbine generator seal oil gauge isolation valve resulting in a small unisolable oil leak which, had it been worse, could have resulted in a Unit 2 scram. In March 2004, planned work to install phone cable inside a process computer cabinet did not assess the risk to control room indications. Workers inadvertently shorted the power supply to the cabinet causing the loss of the Safety Parameter Display System (SPDS) and the core thermal limit monitoring program on both units.

In December 2004, planned work to perform a flow balance on the Unit 1 diesel generator cooling water system was not assessed for a known potential for stem-disk separation. A maintenance isolation valve was cycled per procedure resulting in a stem-disk separation and the inoperability of 'A' Residual Heat Removal (RHR), Low Pressure Core Spray (LPCS), and Reactor Core Isolation Cooling (RCIC).

In January 2005, planned work on the Unit 1 'C' Circulating Water (CW) pump was not assessed for potential risks to common CW pump circuitry if an electrical short was to occur. During replacement of the 'C' CW pump's run time meter, a maintenance induced short resulted in the trip of the 'A' CW pump due to a previously unevaluated electrical interconnection between the 'A' and 'C' CW pump circuitry.

In October 2005, the potential for planned maintenance activities on the 'B' gross gamma post Loss of Cooling Accident (LOCA) monitoring system to affect other systems was not fully assessed. The licensee's apparent cause evaluation indicated a failure to properly control a lifted lead was the cause of this event. Specifically, this lead was inadvertently shorted which resulted in the unanticipated loss of power to the 'A' train of control room ventilation radiation monitor channels 'C' & 'D' and the subsequent inoperability of the control room 'A' emergency makeup fan.

The licensee has evaluated or plans to evaluate these incidents via their Corrective Action Program (CAP) and has taken several actions to address the effectiveness of risk assessment. One of these actions was a monthly review of both maintenance risk and department work package walkdowns. The September 2005 review noted that there was no evidence of maintenance risk being evaluated by the department prior to work package briefings in the area of instrument maintenance packages and that maintenance risk evaluations were generic in nature and did not include task specific information for electrical maintenance packages. Inspectors noted that the continued occurrence of these issues challenges the ability of the licensee to take appropriate compensatory actions for planned work activities.

.4 Assessment of Safety-Conscious Work Environment

a. Inspection Scope

In the course of the inspection, the inspectors spoke with plant staff to assess whether there were impediments to the establishment of a safety conscious work environment. The inspectors also discussed the implementation of the Employee Concerns Program (ECP) with the ECP Coordinators. Licensee programs to publicize the CAP and ECP programs were reviewed.

b. Issues

Plant staff did not express any concerns regarding the safety conscious work environment. The staff was aware of and generally familiar with the CAP and other plant processes including the ECP through which concerns could be raised. Further, a review of the types of issues in the ECP indicated that site personnel were appropriately using the corrective action and employee concerns programs to address their concerns. Based on interviews, the ECP Coordinators were appropriately focused on ensuring all site individuals were aware of the program, reviewing individual concerns, and using the ECP and CAP programs appropriately to resolve concerns.

4OA6 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Ms. Susan Landahl and other members of licensee management in an exit meeting on October 28, 2005. Ms. Landahl acknowledged the findings presented and indicated that no proprietary information was provided to the inspectors.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

R. Bellettini	Corrective Action Program Manager
T. Conner	Maintenance Director
L. Coyle	Operations Director
D. Decker	Maintenance Backup CAPCo
L. Kofoid-Durdan	Chemistry CAPCo
R. Ebright	Training Director
D. Enright	Plant Manager
J. Fiesel	Maintenance Services
F. Gogliotti	Engineering Director
M. Hayworth	NO - Employee Concerns
P. Holland	Regulatory Assurance
B. Kapellas	Radiological Protection
S. Landahl	Plant Manager
M. Poland	Maintenance CAPCo
J. Rappeport	LaSalle Nuclear Oversight (NO) Manager
G. Randle	Maintenance Director
D. Rhoads	Work Control Director
S. Shields	Operating Experience Coordinator
T. Simpkin	Regulatory Assurance Manager
M Venaas	Operation CAPCo
B. Werder	Engineering CAPCo
M. Wolfe	RP/PM CAPCo

ITEMS OPENED, CLOSED, AND DISCUSSED

Items Opened: None

Items Closed: None

LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection. Inclusion of a document on this list does not imply that NRC inspectors reviewed the entire documents, but, rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. In addition, inclusion of a document on this list does not imply NRC acceptance of the document, unless specifically stated in the body of the inspection report.

Issue Reports:
- 049049; Perform Effectiveness Review on CAPRs; 1/15/2002
- 075014; L2001-05059 - Manual Scram of Unit 2 Reactor on Lowering; 9/12/2001
- 109759; Ineffective CAPR Identified in EFR (Maint. Risk); 5/29/2002
- 138301; Isolation Valve to Seal Oil Valve Oil Drip to Pressure Guage; 1/06/2003
- 138646; NOS ID'd Incorrect Production Risk Screening in Turbine WO; 1/08/2003
- 155441; 0 Diesel Generator partial CO2 actuation; 04/24/2003
- 175557; Inadvertent actuation of the Unit 1 UAT SPR cut off switch; 09/12/2003
- 183508; Thrust bearing found installed backwards; 10/29/2003
- 190091; B TDRFP min flow valve observations; 12/10/03
- 201411; Auto Start of 1a CD/CB pump due to 1A TDRFP Min Flow Opening; 2/13/04
- 204940; Motor Driven Deed Pump Min Flow Valve Failed to Close; 2/29/04
- 206183; Summary of issues re IN/ADS on Unit 1; 03/04/2004
- 210593; Loss of Power to Unit 0 Process Computer Cabinet 0C91-P633; 3/24/2004
- 218711; 1&2DG007 Valve PM Unable to be Performed Prior to Crit Date; 5/04/2004
- 225440; Wrong leads lifted during switch de-termination; 06/02/2004
- 246427; 2C71A - K010G Failed to de-energize as required; 08/23/2004
- 253839; Replace 2E51-FO28; 9/17/04
- 263535; GL 89-13 Commitment Changes are Requried; 10/06/2004
- 263938; Replace 2E51-FO28; 10/15/04
- 266684; Corrective action inappropriately closed; 10/25/2004
- 280218; 2A Diesel Generator Trip on Reverse Power; 12/07/04
- 285132; EACE Corrective Actions not Scoped into L2R10; 2/22/04
- 286665; Stem Disk Separation on 1DG032; 12/30/2004
- 287541; 1C Circ Water Pump Tripped; 1/04/2005
- 292281; Div. 1, 125 VDC transient during charger swap; 01/19/2005
- 293701; 1C CW PP Trip Prompt AR:287541 Closed Without Comments; 1/24/2005
- 298702; Radworker Human Performance Issue; 2/07/05
- 300255; Relay 2C71A-K16B Time Delay found OOT; 02/11/2005
- 304516; RHR Keep Fill Mod Fire Protection Awareness; 2/23/05
- 302209; Small Fire in Unit 2 Reactor Building-694 elevation; 2/16/05
- 302447; Near Miss-Fire Extinguisher Malfunction; 02/17/05
- 308949; NOS ID CAPR for CSCS Valve RCR Closed Inappropriately; 3/05/2005
- 313164; Problems Developing Flow and Speed During RCIC 150 psig Operability Test; 3/21/2005
- 314607; ACE 268939 Closed Without Actions Being Created
- 319064; CCA Needed for Various Fire Protection Issues; 3/30/05
- 322203; 2E51-FO28 Valve Failed Local Lead Rate Test; 4/07/05
- 323545; Found breaker set on 3, when passport shows 2; 04/11/2005
- 337126; Blown channel B1 RPS fuse during Hydraulic control unit work; 05/20/2005

- 339049; NOS OD'd Ineffective Corrective Action; 5/27/05
- 343954; NOS ID'd an IE Was Not Written for an Equip Deficiency; 6/14/05
- 359160; Instrument OOT, 1E31-N008B, Trend Code B2; 08/02/2005
- 367349; Trend code B4, 1E31-N008C found out of tolerance; 08/26/2005
- 368384; NOS Identified Inadequate ACE Performed on Hot Work Area; 8/30/05
- 371398; Instrument OOT, 1TIC-VD015 failed upscale, 08/10/2005
- 374389; NOS IDs CA not Created to Address Apparent Cause; 9/16/05
- 375027; NER not issued as required by EACE; 9/19/05
- 375547; Ace - Investigate 1B Diesel Generator Above Nitrite Goal
- 377937; GE SC05-08 Update: GE14/GE12 Critical Power Determination; 9/26/2005
- 331529; 2VY03A Cooling Water Flow Lower than Expected; 5/03/2005
- 346319; Surveillance Rescheduled Due to No Contingency in Place; 6/21/2005
- 385752; 89-13 Program PI for 3rd Quarter is Yellow; 10/13/2005
- 386112; Unexpected LOA Entry/ Unexpected TS Entry; 10/14/2005
- 386222; VC Trip During Work on 1RIT-CM017; 10/14/2005
- 388955; 2A D/G Room Temp Lower Than Expected; 10/22/2005

Work Orders:
- 785751; Replace valve 2DV038B with new; 03/11/2005
- 820282; Replace transformer for 1E22-B7-L-BKR and check other components; 08/20/2005
- 810545; Inspect 1A Bus duct cooling fan and correct the rubbing; 05/26/2005
- 605500; Perform Unit 2, Reactor Protection System Relay logic test per LES-RP-205; 02/11/2005
- 829234; Replace the 1G33-F022A/023A valves; 10/06/2005
- 774384; Replace isolation valve 0SA001; 10/12/2005
- 785140; Perform in-service inspection of 0VC05CA per LES-GM-111; 05/25/2005
- 687347; Perform motor winding test per MA-AA-723-330 at SWGR 251, Cub. 3; 05/12/2005
- 593783; Perform Unit 1, Div. 2 alternate rod insertion logic test per LES-RD-103A; 1-29-2005
- 383266; Perform Turbine Building Fire Sump Magnetrol and alternator inspection and sump pump capacity check per LES-GM-116; 06/28/2002
- 820741; Perform PM inspection on PC Chiller per LES-GM-112; 09/27/2005
- 852201; Perform 2B VP chiller contingency repairs; 10/05/2005

Procedures:
- EI-AA-101; Employee Concerns Program
- ER-AA-520; Instrument Performance Trending; Revision 3
- LES-GM-109; Inspection of 480 V Klockner Moeller Motor Control Centers; Revision 30
- LOP-HP-01E; Unit 1 HPCS Electrical Checklist; Revision 10
- LS-AA-110; Commitment Management; Revision 2
- LS-AA-115; Operating Experience Procedure; Revision 6
- LS-AA-120; Issue Identification and Screening Process; Revision 3
- LS-AA-125; Corrective Action Program (CAP) Procedure; Revision 8
- LS-AA-125-1004; Effectiveness Review Manual; Revision 2
- MA-AA-716-010; Maintenance Planning; Revision 7
- MA-AA-723-325; Molded Case Circuit Breaker testing; Revision 3
- MA-MW-1001; Maintenance Risk Assessment; Revision 3
- NO-AA-1018; Nuclear Oversite quarterly Report; Revision 5
- WC-AA-106; Work Screening and Processing; Revision 3

Self-Assessments:
- 193939-05; OPEX Response Documentation; 9/23/04
- 193940-05; OPEX Response Documentation; 12/14/04
- 283582; Corporate OPEX Program; 11/30/2004
- NOSA-LAS-05-01; Corrective Action Program NOS audit; 05/04/2005

LIST OF ACRONYMS

AR	Action Request
CAP	Corrective Action Program
CAPR	Corrective Actions to Prevent Reoccurrence
CAQ	Condition Adverse to Quality
CR	Condition Report
CW	Circulating Water
ECP	Employee Concerns Program
EFR	Effectiveness Review
LER	Licensee Event Report
LOCA	Loss of Cooling Accident
LPCS	Low Pressure Core Spray
MRC	Management Review Committee
NCV	Non-cited Violation
NOS	Nuclear Oversight
NRC	Nuclear Regulatory Commission
OPEX	Operating Experience
PI&R	Problem Identification and Resolution
PIM	Plant Issues Matrix
PT	Potential Transformer
RCE	Root Cause Evaluation
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
SCAQ	Significant Condition Adverse to Quality
SPDS	Safety Parameter Display System