La Salle 2
2Q/2008 Plant Inspection Findings

Initiating Events

Significance: SL-IV Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Analyze Potential Internal Flood Sources
• SL-IV. The inspectors identified an NCV of 10 CFR 50.59, "Changes, Tests, and Experiments," which had very low safety significance. Specifically, the licensee failed to include non-seismically designed piping outside of the turbine building watertight enclosures as a potential source of internal flooding in a 50.59 evaluation. The licensee entered the issue into their corrective action program, performed an operability evaluation, and initiated corrective actions.

Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. With the assistance of the NRC Regional Senior Reactor Analyst (SRA), the inspectors determined from the initiating events evaluation in the phase one and phase three screenings that the underlying technical issue was of very low safety significance (Green). In accordance with the Enforcement Policy, the violation was therefore classified as a Severity Level IV violation. The inspectors determined that there was no cross cutting aspect to this issue.
Inspection Report# : 2007005 *(pdf)*

Significance:  Dec 14, 2007
Identified By: NRC
Item Type: FIN Finding
Failure to perform root cause for significant condition adverse to quality
The NRC identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” for the failure to perform an adequate RCA to determine the corrective actions necessary to prevent recurrence for a SCAQ. Specifically, the licensee did not evaluate whether there were any aspects under their control that may have identified or prevented the incorrect machining of the Unit 1 jet pump riser brace clamps. The modification was initiated and processed in accordance with the licensee’s process, but the contractor had the primary responsibility for implementation. The licensee assigned the performance of the RCA to the contractor. The contractor identified that they had provided incorrect measurements. However, the licensee did not perform an evaluation of their involvement with the modification; specifically, they did not look at those aspects of the modification directly under their control. By not performing an independent evaluation, the licensee failed to identify the root cause of any weaknesses within their oversight of the work that may have identified the incorrect measurements. As such, they were not able to determine a corrective action to prevent recurrence of similar oversight of contractor activities. The performance deficiency has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because the licensee did not evaluate whether there were any aspects under their control that may have identified or prevented the incorrect machining of the clamps. [P.1(c)]

Inspection Report# : 2007006 *(pdf)*

Mitigating Systems

Significance:  Mar 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Unacceptable Preconditioning of MSIV prior to performing ASME Stroke Time Testing
The inspectors identified a finding of very low safety significance involving the unacceptable preconditioning of the Unit 1 Main Steam Isolation Valves (MSIVs). Specifically, the inspectors identified that the licensee performed

maintenance on the MSIVs prior to performing the American Society of Mechanical Engineers (ASME) required inservice testing (IST). The inspectors concluded that pre-stroking all the MSIVs during the limit switch calibration and replacing the ASCO test solenoid valve on the 'D' MSIV unacceptably preconditioned the valves and as a consequence masked the results of the as-found closing stroke of the MSIVs. A non-cited violation of the Code of Federal Regulations (CFR), 10 CFR 50, Appendix B, Criterion XI, "Test Control" was also identified for the failure to establish test procedures that appropriately demonstrated that a safety related component will perform satisfactorily in-service.
The inspectors determined that the finding was more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone, and it affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. However, since the MSIVs would have been able to perform their safety function, the finding was considered to be of very low safety significance. The finding is also related to the cross cutting area of Problem Identification and Resolution (PI&R). Specifically, the finding is related to the Operating Experience component (Aspect P.2(b)) because the licensee did not properly use and evaluate relevant operating experience information received from other Exelon plants, nor apply it to the station procedures. Corrective actions by the licensee included additional examination of the MSIV maintenance practices to further evaluate preconditioning cases.

Inspection Report# : 2008002 *(pdf)*

Significance: G Mar 31, 2008
Identified By: NRC
Item Type: FIN Finding
Failure to Restore Available Seismic Monitoring System Channels to an Operable and Available Status in a Timely Manner
The inspectors identified a finding of very low safety significance involving the licensee's seismic monitoring system. Specifically, the inspectors identified that the licensee had not appropriately prioritized restoration activities for three channels of the station's seismic monitoring system following a scheduled instrument calibration surveillance during which a fourth channel had failed calibration. During several ensuing weeks, the licensee missed several opportunities to identify the exact nature of the problem and restore the three potentially available and operable channels of the system to service.
Because the seismic monitoring system was not within the scope of 10 CFR 50, Appendix B, no violation of regulatory requirements was identified in conjunction with the finding. The licensee entered this issue into their corrective action program (CAP) as issue report (IR) 725240. Corrective actions planned and completed by the licensee included sending out an internal operating experience communication on the seismic monitoring system. In addition, the inspectors determined that the finding was related primarily to the cross cutting area of PI&R as defined in NRC IMC 0305, "Operating Reactor Assessment Program," since the licensee did not take appropriate corrective actions to address the partial restoration of potentially available channels of the seismic monitoring system in a timely manner (Aspect P.1(d)).

Inspection Report# : 2008002 *(pdf)*

Significance: G Dec 14, 2007
Identified By: NRC
Item Type: FIN Finding
Failure to correct a signifcant condition adverse to quality
The NRC identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to correct a SCAQ in a timely manner. Specifically, the licensee had not repaired or replaced all of the affected CSCS valves that are susceptible to separation of the valve disc from the valve stem. The first failure was in September 1996. The cause was determined to be vibration accelerated corrosion and erosion of the valves internal carbon steel components. There were at least four additional failures between 2002 and 2006. Corrective actions included the refurbishment or replacement of the 88 susceptible valves, as appropriate. As of this inspection, ten valves have not been refurbished or replaced. The valves are associated with safety-related and important-to-safety systems. The performance deficiency has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because the licensee did not take the appropriate corrective actions to address a safety issue in a timely manner, commensurate with the safety significance. [P.1(d)]
Inspection Report# : 2007006 *(pdf)*

Significance: G Sep 30, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Instrument Maintenance Technicians Cause Pressure Spike when Valving in Flow Transmitter and Render RHR Train Inoperable
A self-revealing finding of very low safety significance was identified following the inadvertent actuation of the 2B RHR pump minimum flow valve (2E12-F064B) during a Unit 2 RHR pump 2B/2C flow indication calibration. Specifically, licensee instrument technicians returning the 2E12-N015B flow instrument to service created a pressure spike when valving in the instrument following calibration; the pressure spike was sufficient to cause the 2B RHR pump injection flow high alarm (2H13-P601-B307) setpoint to be reached, and the 2B RHR pump minimum flow valve automatically repositioned shut as a result. No violations of NRC requirements or regulations were identified by the inspectors.

The performance deficiency associated with this finding involved the failure of licensee instrument maintenance technicians to exercise due caution when restoring the 2E12-N015B transmitter (2B RHR pump flow indication) to service following calibration, such that a pressure spike was created that caused the 2B RHR pump minimum flow valve to automatically reposition shut. This error resulted in the unnecessary and unintentional actuation of a safety-related component, and rendered the 2B RHR train inoperable per Technical Specifications. The finding was determined to be of more than minor significance in that it had a direct impact on the objective for the Mitigating Systems Cornerstone for Reactor Safety. Because the finding did not represent the actual loss of a safety function for any single train or system, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event, the inspectors concluded that it was of very low safety significance and within the licensee's response band. In addition, the inspectors determined that the finding was related primarily to the cross-cutting area of Human Performance since the licensee's instrument maintenance technicians did not appropriately utilize applicable human error prevention techniques, such as self checking, etc., when restoring the 2E12-N015B flow transmitter to service (Aspect H.4(a)). Corrective actions planned and completed by the licensee included the performance of a quick human performance investigation and conducting a detailed apparent cause evaluation analysis for the event.
Inspection Report# : 2007004 *(pdf)*

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Periodically Test Keylock Switches
The inspectors identified a finding of very low safety significance and an associated NCV of the LaSalle County Station Facility Operating License associated with the Fire Protection Program for failure to ensure that all necessary testing was identified and performed. Specifically, the licensee failed to periodically test remote-local keylock control switches on the switchgear for the emergency buses which are required to implement a safe shutdown for a plant fire in accordance with the licensee's Safe Shutdown Analysis described in Appendix H, Section H.4 of the Fire Protection Report. This issue was entered into the licensee's corrective action program, and as a compensatory measure, the licensee implemented procedure changes to the safe shutdown procedures that gave direction to manually close a breaker if the breaker failed to close using the remote-local keylock switch. The licensee also successfully tested a portion of the remote-local switches and initiated efforts to determine a schedule for testing of the remaining keylock switches.

The finding was more than minor because the licensee did not ensure the operability and functional performance of the remote-local keylock control switches to perform satisfactorily in service. The finding was of very low safety significance based on the results of a Phase 1 screening completed in accordance with IMC 0609, Appendix F, "Fire Protection Significant Determination Process."
Inspection Report# : 2007009 *(pdf)*

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Translate Backwash Valve Settings into Procedures
The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," in that, the design bases for the manual backwash valve position values for the Diesel Generator Cooling Water (DGCW) backwash

strainers were not

correctly translated into procedures and instructions. Specifically, the manual backwash valve positions derived from flow test surveillance procedures based on hydraulic calculation models were not translated into operations procedures for manual operation of the DGCW strainer backwash valves. This issue was entered into the licensee's corrective action program, and the licensee updated the applicable operating procedure to reflect the correct manual settings for the DGCW strainer backwash valves.

This issue was more than minor because the DGCW backwash valves could be manually opened more than required during a loss of power event, and thus divert some cooling flow from post accident required equipment. The finding was of very low safety significance based on a Phase 1 screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," because on re-evaluation, the design function was maintained.
Inspection Report# : 2007009 *(pdf)*

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Station Blackout Analysis for RCIC
A finding of very low safety significance was identified by the inspectors associated with a Non-Cited Violation of 10 CFR 50.63, "Loss of All Alternating Current Power." Specifically, the licensee did not have an appropriate analysis to determine the capability of coping with a station blackout, in that, it had no analysis that verified the proper operation of the reactor core isolation cooling (RCIC) turbine at the elevated suppression pool temperatures encountered during a station blackout event. This issue was entered into the licensee's corrective action program. The licensee obtained additional information and performed a preliminary analysis which showed that the RCIC turbine would operate as required.

This finding was more than minor because the licensee did not have an analysis that demonstrated the availability and reliability of the RCIC turbine at the elevated suppression pool temperatures encountered during a station blackout event. The issue was of very low safety significance based on a Phase 1 screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situation," because the licensee obtained additional data from the RCIC turbine manufacturer and performed a functionality analysis which demonstrated the pump turbine could operate at heightened suppression pool temperatures.
Inspection Report# : 2007009 *(pdf)*

Significance: SL-IV Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Lake Level Instrumentation Removed from Service without 10 CFR 50.59 Evaluation
The inspectors identified an NCV of 10 CFR Part 50.59, "Changes, Tests, and Experiments," which had very low safety significance. Specifically, the licensee failed to complete a 50.59 evaluation for removing main control room lake level instrumentation from service. Although the UFSAR stated that the lake level was continuously monitored in the main control room, the level instrument had not functioned reliably for several years and was removed from the plant maintenance schedule in December 2005. At the time of the inspection, control room monitoring of the lake level was not available. The licensee entered the issue into their corrective action program and initiated more frequent operator rounds as a compensatory measure.

The finding was more than minor because the inspectors could not reasonably determine that this change would not have ultimately required prior approval from the NRC. This finding was categorized as Severity Level IV because the underlying technical issue for the finding was determined to be of very low safety significance based on a Phase 1 screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situation."
Inspection Report# : 2007009 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance: G Sep 30, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
External Radiation Levels on Package Exceeds 200 mrem/hr on Contact
A self-revealing NCV of 10 CFR 71.5 was identified when a package of licensed material offered for shipment exceeded the external radiation limit contained in 49 CFR 173. The shipment was surveyed upon receipt at the final destination by individuals qualified in radioactive materials package receipt and the radiation levels at the package surface were in excess of 200 millirem (mrem)/hr. As a result of this event, the licensee changed the shipping procedure to require that all items placed in the package be surveyed prior to closure, survey and shipment.

The cause of the error was a failure to assure that all package contents were properly surveyed and secured so they could not shift and create a change in radiation field during transport. The finding, under the Public Radiation Safety Cornerstone, does not involve the application of traditional enforcement. The finding was more than minor as it involves an occurrence in the licensee's radioactive material transportation program that is contrary to NRC or Department of Transportation (DOT) regulations and is a key attribute under the objective of the radiation safety cornerstone to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain, as a result of routine civilian nuclear reactor operation. Although the limits for external radiation levels on a package were exceeded, the finding is of very low safety significance because the area of the package having the higher external radiation levels would note have been accessible to a member of the public. The inspectors determined that the finding had a cross-cutting aspect associated with problem identification and resolution, in that the licensee did not implement and institutionalize operating experience through changes to procedures (Aspect P.2(b)).
Inspection Report# : 2007004 *(pdf)*

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

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