La Salle 2
3Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: FIN Finding
Weaknesses in Corrective Action Program and NRC Performance Indicator Procedure Implementation and Use
The inspectors identified a finding of very low safety significance. Specifically, the inspectors identified several examples where the licensee did not adequately implement applicable corrective action and performance indicator procedural requirements associated with the White PI issue. Because the submission of PI program data is voluntary and not required by code or regulation, no associated violations of regulatory requirements were identified by the inspectors.

Because this finding was related to a PI that exceeded a threshold, the inspectors determined that it was of more than minor significance. The inspectors determined that the finding was not suitable for SDP evaluation because non-compliance with CAP and PI procedures did not directly result in degraded or inoperable equipment. Therefore, this finding was reviewed by NRC Regional Management, in accordance with IMC 0612, Section 05.04c, and determined to be of very low safety significance. Corrective actions by the licensee include the planned completion of an overall root cause evaluation (RCE) to identify problems, evaluate root causes, and determine corrective actions relative to this White PI.

Inspection Report# : 2005012*(pdf)*

Significance: W Jun 30, 2005
Identified By: Licensee
Item Type: VIO Violation
Failure to Maintain Required Design Redundancy Against a Single Failure Involving Safety-Related 4160 Vac Division 1 and Division 2 Bus Metering Circuitry.
An apparent violation having a preliminary low to moderate safety significance was identified during the licensee's review of a similar issue identified at Crystal River Nuclear Plant Unit 3 on January 27, 2005. A design deficiency in a metering circuit for the site's normal 4160 volts-alternating current (Vac) offsite power supply induced a vulnerability whereby a single fault in the metering circuitry, for a given unit, could have resulted in the loss of all Division 1 and Division 2 safety-related 4160 Vac power on a given unit.

The finding was determined to be greater than minor because it impacted both the Initiating Events and Mitigating Systems Cornerstones. The finding was preliminarily determined to be of low to moderate safety significance following the performance of a case-specific Phase 3 SDP. Corrective actions taken by the licensee included installing temporary modifications on each unit to remove the metering circuitry in question.

On 9/7/2005, a final significance determination (WHITE) letter and NOV were transmitted to the licensee for this issue (ADAMS ML052500698). The finding was determined to constitute an Old Design Issue, as discussed in the NRC Enforcement Policy, and enforcement discretion was exercised.
Inspection Report# : 2005010*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Properly Implement Procedure Requirements for Hot Work and Ignition Control Results in a Fire in the 2B RHR Corner Room
A finding of very low safety significance was self-revealed when sparks from hot work associated with the cutting of a 20-inch pipe in the 2B residual heat removal (RHR) corner room on February 16, 2005, ignited a small pile of absorbent cleaning material in the room. An associated NCV was also identified against Technical Specification 5.4.1(c) for failure to follow the existing plant fire protection procedure related to hot work and ignition control.

The performance deficiency, identified during review of the event, involved two examples where licensee personnel failed to properly implement the established plant procedure governing hot work and ignition control. The finding was of more than minor significance in that it had a direct impact on the cornerstone objective. Specifically, the licensee's performance deficiencies were directly responsible for an actual Class ‘A' fire in the 2B RHR corner room on February 16, 2005. Because the finding involved Unit 2 in a cold shutdown condition, the inspectors determined it to be of very low safety significance (Green) and within the licensee's response band. Corrective actions completed by the licensee include: focused coaching sessions with superintendents and general foremen of hot work personnel; meetings between the

station's Fire Marshal and contractor supervision to discuss hot work issues; and focused coaching sessions with fire watch personnel by contractor management conveying the message that the fire watch is ultimately responsible for the work location being and remaining in compliance with fire safety standards. The finding was determined to involve the cross-cutting aspect of human performance.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Take Timely and Effective Corrective Action for Hot Work Ignition Control Issues
The inspectors identified a finding of very low safety significance and an associated NCV during review of corrective actions associated with a small fire in the 2B RHR corner room on February 16, 2005. The inspectors determined that the licensee had, during several opportunities, failed to take timely and effective corrective actions with respect to ignition control for hot work. This failure was determined by the inspectors to be contrary to the requirements of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action."

In reviewing corrective actions for 2B RHR corner room fire, the inspectors identified a performance deficiency regarding inadequate corrective actions taken to control hot work activities. The inspectors determined that the finding was of more than minor significance in that it had a direct impact on an objective for the Initiating Event Cornerstone. The inspectors determined that the finding impacted minimally on the licensee's capability to reach and maintain cold shutdown conditions. Therefore, this finding had very low safety significance (Green) and was within the licensee's response band. Additional corrective actions planned by the licensee include a comprehensive common cause analysis to determine whether or not generic fire protection programmatic weaknesses exist.

Inspection Report# : 2005002*(pdf)*

Mitigating Systems

Significance: G Sep 02, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Procedures Fail To Ensure Fire Doors Are Operable
A finding of very low safety significance was identified by the inspectors for a violation of Technical Specification 5.4.1(c) requirements. The licensee failed to establish written procedures that contained direction for ensuring that fire doors (i.e., fire-rated barriers) were closed and latched. Specifically, the inspectors found an inoperable fire door in which the latching pins were not extended into the door frame. The licensee's daily fire door surveillance failed to include direction for ensuring that the latching pins in the inactive door leaf in a set of double doors were extended into the door frame. Once identified, the licensee entered the finding into their corrective action program as Issue Report 00363677 to revise the affected procedure.

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

Inspection Report# : 2005006*(pdf)*

Significance: SL-IV Jul 15, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform 10 CFR 50.59 Evaluation for an Adverse Change to the UFSAR
A finding of very low safety significance was identified by the inspectors associated with a Non-Cited Violation of 10 CFR 50.59, "Changes, Tests, and Experiments," where the licensee failed to complete a full evaluation in accordance with 10 CFR 50.59 for an adverse change to the nitrogen supply header description in the updated final safety analysis report. This issue was entered into the licensee's corrective action system.

This finding was more than minor because the screening was adverse and there was insufficient information to reasonably conclude that prior NRC approval was not necessary. 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 using the Phase 1 worksheet.
Inspection Report# : 2005008*(pdf)*

Significance: G Jul 15, 2005

Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Basis for Simultaneous Energization of Both Battery Chargers
A finding of very low safety significance was identified by the inspectors associated with a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," where the licensee failed to maintain an accurate design basis supporting the addition of loads on the safety-related buses, due to the simultaneous energization of both battery chargers. This issue was entered into the licensee's corrective action system and the licensee performed a preliminary analysis which showed that the safety-related buses would not be overloaded with both chargers energized simultaneously.

This finding was more than minor because it affected an attribute of the mitigating systems cornerstone. Specifically, the licensee could not initially demonstrate that the design basis of the plant was not affected by adding the additional battery charger load. This finding was of very low safety significance because it screened out using the Phase 1 worksheet.
Inspection Report# : 2005008*(pdf)*

Significance: G Jul 15, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Water Leg Pump Room Heatup Calculation
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, LaSalle County Station failed to maintain an accurate design basis heat-up calculation that supported the heat loads that would be present during a station blackout event for the water leg pump room. This issue was entered into the licensee's corrective action system and the licensee performed a preliminary analysis which showed that the temperatures in the water leg pump room were within previously analyzed limits.

This finding was more than minor because it affected an attribute of the mitigating systems cornerstone. Specifically, the licensee had not maintained design control over the maximum heatup temperature in the water leg pump room which are necessary for coping with a station blackout. This finding was of very low safety significance because it screened out using the Phase 1 worksheet.
Inspection Report# : 2005008*(pdf)*

Significance: G Jul 15, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Setpoint Calculation Associated with the RCIC Turbine Exhaust Pressure Trip
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, LaSalle County Station did not have an appropriate analysis to determine the capability of coping with a station blackout in that it had no design basis document that verified the proper operation of the reactor core isolation cooling (RCIC) turbine exhaust pressure trip during station blackout conditions. This issue was entered into the licensee's corrective action system and the licensee obtained additional information and performed a preliminary analysis which showed that the pressure trip would operate as required.

This finding was more than minor because it affected an attribute of the mitigating systems cornerstone. Specifically, the licensee had insufficient design control methods in place to demonstrate the operability or reliability of the RCIC turbine exhaust pressure trip during a station blackout. This finding was of very low safety significance because it screened out using the Phase 1 worksheet.
Inspection Report# : 2005008*(pdf)*

Significance: G Jul 15, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Temperature Qualifications for RCIC Electronic Governor Modules
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, LaSalle County Station had RCIC room station blackout temperature profiles that exceeded the limiting temperature for the skid-mounted RCIC electronic governor module (EGM). This issue was entered into the licensee's corrective action system and the licensee performed a preliminary analysis which lowered the maximum temperature in the RCIC room. Additionally, the licensee performed testing on the EGM to show that it could operate within the expected temperatures for the required duration.

This finding was more than minor because it affected an attribute of the mitigating systems cornerstone. Specifically, the licensee had not maintained control of its design such that the capability of the RCIC EGM was invalid. This finding was of very low safety significance because it screened out using the Phase 1 worksheet.
Inspection Report# : 2005008*(pdf)*

Significance: G Jul 15, 2005
Identified By: NRC

Item Type: NCV NonCited Violation
Inadequate NPSH for the RCIC Pump
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 accurate analysis to show that the RCIC pump had sufficient net positive suction head (NPSH) to operate under station blackout conditions. This issue was entered into the licensee's corrective action system and the licensee performed a preliminary analysis which showed that there was sufficient NPSH during station blackout conditions.

This finding was more than minor because it affected an attribute of the mitigating systems cornerstone. Specifically, the licensee failed to demonstrate that there was sufficient NPSH available to ensure the operability and reliability of the RCIC pump under station blackout conditions. This finding was of very low safety significance because it screened out using the Phase 1 worksheet.
Inspection Report# : 2005008*(pdf)*

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective Corrective Actions for Water Intrusion into Safety-Related Fan Control Cabinets
A finding of very low safety significance was identified by inspectors, who determined that the licensee failed to take timely and effective corrective action for water intruding into safety-related electrical junction boxes and control cabinets via electrical conduit from the outside. An associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was also identified.

The inspectors determined that the performance deficiency associated with this issue centered around the licensee's failure to give proper priority to the issue and the actions needed to resolve it. The inspectors determined that the finding was of more than minor significance in that it had a direct impact on the Mitigating Systems cornerstone objective. Because the finding did not represent the loss of any safety function for any system or train, and because it was determined not to be potentially significant with respect to any external events such as seismic, flooding, tornado, etc., the inspectors determined it to be of very low safety significance (Green) and within the licensee's response band. Corrective actions taken or planned by the licensee include: a complete extent-of-condition review of all through roof conduits that may be susceptible to water intrusion; drilling of weep holes in all susceptible junction boxes; repairs to damage caused by water intrusion; and the sealing of the leaking conduit on Unit 1, Division 1 and Division 2 safety-related ventilation systems. The finding was determined to involve the cross-cutting area of identification and resolution of problems.

Inspection Report# : 2005003*(pdf)*

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Nonconservative Uncorrected Bias Associated with Tank Level Instruments Used for Standby Liquid Control System Surveillances
The inspectors identified a finding of very low safety significance. During a review of test procedures used to maintain standby liquid control (SBLC) tank volume and concentration within Technical Specification limits, the inspectors identified that the licensee had used inaccurate and nonconservative instruments to measure SBLC tank level. An associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control," was also identified.

The inspector-identified performance deficiency associated with this issue was a failure by the licensee's staff to utilize adequate test equipment for the performance of safety-related Technical Specification surveillance measurements of SBLC solution tank level. The inspectors determined that the finding was of more than minor significance in that it had a direct impact on the Mitigating Systems cornerstone objective. The finding was determined to be of very low safety significance because subsequent licensee analyses of SBLC tank concentrations and volumes, in accordance with GL 91-18, demonstrated that the errors in SBLC tank volume in question were sufficiently small as to not have jeopardized the capability of SBLC to have performed its safety function for either unit. Corrective actions by the licensee included: additions of sodium pentaborate chemical to each unit's SBLC tank to adjust chemistry to well within the Technical Specification required band; revision of SBLC tank sampling procedures; and the establishment of administrative controls to ensure that each unit's SBLC tank volume and sodium pentaborate solution concentration are being maintained well away from Technical Specification limits; and the procurement of new T-squares instruments for measuring SBLC tank level, which were manufactured in accordance with 10 CFR 50, Appendix B, Quality Assurance Program controls and requirements.

Inspection Report# : 2005003*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Incorporate Relevant Design Information into Battery Charger Operating Procedure Results in DC Bus Undervoltage Condition
A finding of very low safety significance was self-revealed when changes implemented by a modification to the Unit 2 125 volt direct current (Vdc) charger system were not appropriately incorporated into operational procedures. This procedural deficiency resulted in an under-voltage condition during an attempt to swap in-service chargers. An associated NCV against the requirements of 10 CFR 50, Appendix B, Criterion V,

"Instructions, Procedures, and Drawings," was also identified.

The identified performance deficiency was the failure of the licensee to incorporate relevant design information concerning the metering circuitry of a newly installed battery charger into the appropriate operating procedures. The finding was of more than minor significance in that it had a direct impact on the MS cornerstone objective. Specifically, the procedural deficiency, and lack of any formal training regarding the metering circuitry, contributed to a low voltage condition on the Unit 2 Division 1 125 Vdc system. The low voltage resulted in the Unit 2 Division 1 125 Vdc system being rendered inoperable for about 23 minutes. Because the finding involved the loss of only one train of safety related equipment and the loss was for less than the Technical Specification allowed outage time, the inspectors determined it to be of very low safety significance (Green) and within the licensee's response band. Corrective actions planned and completed by the licensee include: revision of applicable operating procedures; training for operations personnel on new charger procedures; and planned training to enhance operator knowledge regarding the metering circuitry and the differences between various battery chargers.

Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Take Timely and Effective Corrective Action for Emergency Diesel Generator (EDG) Reverse Power Trips Results in Additional EDG Inoperability and Unavailability
A finding of very low safety significance was identified by the inspectors. The licensee had failed during prior opportunities to fully evaluate the nature of the problem leading to various emergency diesel generator (EDG) reverse power trips. The most recent of these events were a reverse power trip of the 2B EDG on August 18, 2004, for which no root cause was ever determined, and a subsequent reverse power trip of the 2A EDG that occurred on December 7, 2004. An associated Non-Cited Violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was also identified by the inspectors.

The performance deficiency was determined to be a failure on the part of the licensee's staff to fully evaluate a long standing issue with EDG reverse power trip. An evaluation in response to an event, as recent as August 18, 2004, failed to give sufficient priority to identified corrective actions in a manner that would preclude the latest occurrence, a reverse power trip of the 2A EDG on December 7, 2004. The finding was of more than minor significance in that it had a direct impact on the cornerstone objective. Specifically, the inspectors concluded that the licensee's performance deficiency was responsible for the reverse power trip of the 2A EDG on December 7, 2004, which caused the EDG to be unavailable for an additional 26 hours. Because the finding involved the loss of only one train of safety related equipment and the loss was for less than the Technical Specification allowed outage time, the inspectors determined it to be of very low safety significance (Green) and within the licensee's response band. Corrective actions planned and completed by the licensee include: establishment of a less restrictive EDG load limit to allow opening the EDG output breaker when the load is less than approximately 500 kW; additional training for licensed operators in the areas of EDG theory and operation and the effects of reverse power conditions on diesel generators; and revision of simulator modeling for EDGs to more accurately reflect actual plant performance for reverse power trips.

Inspection Report# : 2005002*(pdf)*

Significance: G Dec 31, 2004
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Applicable Operating Procedure For Strainer Backwashing Renders RHRSW Train Inoperable
A finding of very low safety significance was self-revealed when a plant non-licensed operator (NLO) conducted a backwashing evolution of the 2B residual heat removal service water (RHRSW) strainer without obtaining authorization for the activity from any operating supervisor or using any written procedures. The unauthorized and unplanned strainer backwashing caused the 2B RHRSW header to depressurize, rendering Unit 2 Division 2 RHRSW system inoperable for several minutes until the backwashing cycle was complete and the header automatically repressurized. An associated NCV for failure to implement an approved plant procedure for the RHRSW strainer backwashing activity, as required by plant Technical Specification 5.4.1(a) and Regulatory Guide 1.33, Revision 2, Appendix A, was also identified.

The performance deficiency associated with this issue was a failure on the part of the NLO to have used an approved written plant procedure to conduct the backwashing of the 2B RHRSW strainer, a safety-related component. The finding was of more than minor significance in that it had a direct impact on the cornerstone objective. Specifically, the licensee's failure to properly use an approved written procedure for the backwashing of the 2B RHRSW strainer resulted in the inoperability of a safety-related service water train. The finding was of very low safety significance because the loss of operability for the 2B RHRSW train was only for a very short time and the actual loss of safety function did not exceed any Technical Specification allowed outage time limits, and because the event did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. Corrective actions planned and completed by the licensee include: the licensee had entered this issue into their corrective action program as Condition Report 262611; development and implementation of procedural guidance that outlines the activities that are considered skill-of-the-craft for operators; evaluation of need for establishing proficiency requirements for operations NLOs not normally assigned to on-watch duties; and resetting the operations and station event free clocks. The primary cause of the finding was determined to be related to the cross-cutting aspect of human performance.
Inspection Report# : 2004005*(pdf)*

Barrier Integrity

Significance: G Dec 31, 2004
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate VE System Test Procedure Causes Auxiliary Electric Equipment Room High Humidity Condition and Renders Multiple Control Room Annunciator Alarms Inoperable
A finding of very low safety significance and an associated NCV were self-revealed following a trip of the 'A' train of the auxiliary electric equipment room (AEER) ventilation (VE) system while operating in the purge mode. Written procedures for the operation of the VE system failed to properly account for ventilation compressor heat load capacity limitations during VE system alignment in the purge mode. The lack of proper written procedural guidance was determined to constitute a Non-Cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."

The performance deficiency with this issue was a failure on the part of the licensee to establish and maintain adequate written procedures for the testing and operation of the VE system in the purge mode. The finding was of more than minor significance in that if left uncorrected it would constitute a more significant safety concern. The finding was determined to be of very low safety significance because it only involved the barrier function provided for the AEER. Corrective actions planned and completed by the licensee include revisions to procedures LTS-400-17, LOP-VC-01, and LOP-VE-01 to account for the newly identified limitations associated with VE operation in the purge mode.
Inspection Report# : 2004005*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Electrician Enters HRA (Drywell) When Signed On To General Area RWP
A finding of very low safety significance was self-revealed when an electrician improperly entered a high radiation area (HRA) in the radiation controlled area (RCA) (the Unit 2 drywell) that was posted as a HRA. This occurrence was revealed when he exited the RCA and the electronic dosimeter check-out was alerted that a dose rate alarm had occurred during the entry, revealing that the individual had signed on to the wrong radiation work permit (RWP).

The cause of the error was a failure to assure through self-checking that each entry to the electronic RWP sign-in is made using the correct RWP. The finding, under the Occupational Radiation Safety Cornerstone, does not involve the application of traditional enforcement because it did not result in actual safety consequences or potential to impact the NRC's regulatory function, and was not the result of any willful actions. The finding was more than minor as it involves the failure of the licensee to adhere to procedures to monitor and control radiation exposure, a key attribute under the objective of the radiation safety cornerstone to ensure adequate protection of worker health and safety from exposure to radiation. The finding is of very low safety significance because the individual was using an electronic dosimeter that alarms to warn workers of higher than expected dose rates or accumulated dose. The issue constituted a Non-Cited Violation of Technical Specification 5.7.1, which requires that access to, and activities in, each HRA with dose rates not exceeding 1.0 rem per hour at 30 centimeters from the radiation source be controlled by means of a RWP that includes specification of radiation dose rates in the immediate work area and other appropriate radiation protection equipment and measures. Immediate corrective actions included locking the individual out of the RCA and initiation of an investigation. Additionally, all site personnel were notified of this event through a station safety alert. The primary cause of the finding was related to the cross-cutting area of human performance.

Inspection Report# : 2005002*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : November 30, 2005