

La Salle 2

1Q/2005 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2005

Identified By: Self Disclosing

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:  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:  Mar 31, 2005

Identified By: Self Disclosing

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:  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:  Dec 31, 2004

Identified By: Self Disclosing

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:  Dec 31, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform Effective Corrective Action on Degraded/Nonconforming Unit 1 RCIC F028 Containment Isolation Check Valve

The inspectors identified a finding of very low safety significance and an associated NCV during a review of the maintenance and performance history surrounding the 1E51-F028 reactor core isolation cooling (RCIC) containment isolation check valve. The licensee failed to effectively diagnose and correct a recurring performance problem with the valve sticking open following a failed local leak rate test (LLRT) and maintenance performed during the most recent Unit 1 refueling outage (L1R10) in January 2004. This failure to effectively diagnose and correct a degraded and nonconforming condition was determined to constitute a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action."

The performance deficiency with this issue was a failure on the part of the licensee to have properly diagnosed the 1E51-F028 degraded condition and to have effectively enacted repairs in early 2004. The finding was of more than minor significance in that it had a direct impact on this cornerstone objective. Specifically, the licensee's failure to properly diagnose and effectively correct a degraded condition with the 1E51-F028 containment isolation check valve resulted in a subsequent failure, which occurred with the unit operating at power in a condition where the valve was required to be operable. Because the finding did not represent a degradation of the radiological barrier function provided for the control room, auxiliary building, reactor building, or the standby gas treatment (SBGT) system, and did not represent a degradation of the smoke or toxic gas barrier function for the control room, and did not represent an actual open pathway in the physical integrity of the primary containment or involve an actual reduction in defense-in-depth for the atmospheric pressure control or hydrogen control functions of the primary containment, it was determined to be of very low safety significance. Corrective actions planned or completed by the licensee included replacement of the 1E51-F028 valve disc and spring on September 17, 2004; replacement of the entire 1(2)E51-F028 check valves on both units during refuel outages in 2006 and 2007 with valves manufactured using austenitic stainless steel; repair of the ball float valve in the Unit 1 RCIC barometric condenser vacuum tank air discharge separator; repairs to the 1E51-F028 check valve line slope; and an additional on line test for the 1E51-F028 check valve by April 29, 2005, to confirm that it is operating properly. The finding was determined to involve the cross-cutting aspect of problem identification and resolution.

Inspection Report# : [2004005\(pdf\)](#)

Significance:  Dec 31, 2004

Identified By: Self Disclosing

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:  Mar 31, 2005

Identified By: Self Disclosing

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\(pdf\)](#)

Significance:  Sep 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Entry into a Neutron Radiation Area by Operations Personnel without Procedurally Required Neutron Radiation Dose Estimates

The inspectors identified a Green finding and associated Non-Cited Violation (NCV) when they observed operations personnel entering a posted neutron dose area without proper neutron monitoring, contrary to the licensee's Technical Specifications. This finding was considered NRC-identified as radiation protection personnel were unaware of this issue until questions by inspectors indicated a lack of proper neutron dose control for both this event and similar past occurrences.

The cause of the error was a failure of communication between the operations and radiation protection (RP) staff. 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 personnel involved were using electronic dosimeters that alarm to warn workers of higher than expected dose rates or accumulated dose. The issue was a Non-Cited Violation of Technical Specifications 5.4.1(a), which requires written procedures be established, implemented, and maintained in accordance with the requirements of Regulatory Guide 1.33. Section 7.e(7). of Regulatory Guide 1.33 lists the requirement for radiation protection procedures for personnel monitoring. RP-AA-210, "Dosimetry Issue, Usage, and Control," is the plant procedure governing neutron dose estimation and monitoring.

The licensee conducted a human performance investigation to determine the cause of the event and identified a failure of communication between the RP and operation staffs. The individuals involved were coached, site personnel were informed of the event, and RP staff personnel were provided additional training on the requirements for entering neutron areas.

Inspection Report# : [2004004\(pdf\)](#)

Significance:  Jun 30, 2004

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Unauthorized Entry into a High Radiation Area by Maintenance Personnel Building Scaffolding Prior to Required Radiation Protection Surveys

A finding of very low safety significance was self-revealed when a craft person, setting up scaffold in a radiation area, created access to a yet unposted and unmonitored high radiation area (HRA) in the Unit 2 turbine building, and then entered the HRA by climbing the scaffold. This occurrence was detected when the individual's electronic dosimeter (ED) alarmed above the dose rate setting of 80 millirem per hour. The workers immediately acknowledged the alarm, secured the work area, exited the radiologically controlled area (RCA), and notified the radiation protection (RP) department. The RP department confirmed that a HRA existed above the platform of the scaffolding. The individuals were administratively locked out of the RCA and the licensee initiated a prompt investigation. Additionally, all site personnel were notified of this event through a station safety alert. The licensee entered the issue into their corrective action system as condition report (CR) 218052. The fundamental cause of this finding was related to the cross-cutting area of Human Performance.

The cause of this event was incomplete procedural adherence. The finding was more than minor as it could be reasonably viewed as a precursor to a more significant event. The finding was of very low safety significance because the personnel were using EDs that alarm to warn personnel of higher than expected dose rates or accumulated dose. The issue was a Non-Cited Violation of Technical Specifications 5.7.1(a) and (b), which require that: (a) each entry way to a HRA shall be barricaded and conspicuously posted as a HRA; and (b) that access to, and activities in

each area shall be controlled by means of a radiation work permit that includes specification of radiation dose rates in the immediate work area and other appropriate radiation protection equipment and measures.

Inspection Report# : [2004003\(pdf\)](#)

Public Radiation Safety

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

Last modified : June 17, 2005