

Quad Cities 2

2Q/2011 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

WRONG LIMIT ERROR DURING SURVEILLANCE

A self-revealed finding of very low safety significance and associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified on May 4, 2011, when instrument technicians caused a control room alarm on Unit 2 after receiving permission from the Unit 1 unit supervisor to perform the test on Unit 1. Immediate actions included termination of the surveillance and restoration of the equipment to the correct lineup for plant conditions. The issue was entered into the corrective action program as IR 1211933.

Inspectors determined that the licensee's failure to follow the procedure as written resulted in Unit 2 surveillance procedure steps being performed on Unit 1 safety-related equipment; therefore, this was a performance deficiency. The inspectors answered the more than minor screening questions of IMC 0612, Appendix B, Figure 2, Block 9, question 2.a, indicating the performance deficiency could be viewed as a precursor to a significant event, and the finding was, therefore, more-than-minor. Inspectors determined that performing procedural action on the wrong unit would impact the Initiating Event Cornerstone objective of limiting the likelihood of upsetting plant stability and challenging critical safety functions during power operations. Specifically, the objective attributes of configuration control equipment performance were negatively impacted. Inspectors performed the SDP phase I screening using IMC 0609, Attachment 4, Table 4a for transient initiators in the Initiating Events Cornerstone column and answered the question "No." The issue was screened as Green or very low safety significance. Inspectors concluded that the finding had a cross-cutting aspect in Human Performance-Work Practices, in that, licensee staff involved in the event failed to utilize human performance error prevention techniques commensurate with the risk of the assigned task to prevent impact to the station (H.4(a)).

Inspection Report# : [2011003](#) (*pdf*)

Significance:  Sep 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to assess and manage maintenance risks resulting in a Unit 2 Manual Reactor SCRAM

A self-revealed finding of very low safety significance (Green) and associated NCV of 10 CFR 50.65(a)(4) was identified for failure to assess and manage risks associated with maintenance activities. The applicable maintenance activities occurred between July 1, 2010 and August 17, 2010 on Unit 2. The inspectors determined that the licensee's actions to assess and manage the risks associated with maintenance activities did not prevent a transient that upset plant stability, and was identified as a performance deficiency. The inspectors identified that this finding has a cross cutting aspect because the licensee failed to verify the validity of the underlying assumptions supporting the work activity and identify possible unintended consequences (H.1(b)).

The inspectors determined the finding was more than minor because the performance deficiency adversely affected the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. Using IMC 0609, Table 4a, Initiating Events Cornerstone column, Transient Initiators subsection; the question: "Does the finding contribute to both the likelihood of a reactor trip AND that mitigation equipment or functions will not be available?" was answered, "No" by the inspectors because all mitigating functions were available after the event. Therefore, this finding screens as Green, or very low safety significance.

Inspection Report# : [2010004](#) (*pdf*)

Mitigating Systems

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

MSIV RPS LIMIT SWITCH PRECONDITIONING

NRC inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR 50, Appendix B, Criterion V on December 21, 2010. While observing performance of QCOS 0250-01, "MSIV [Main Steam Isolation Valve] Scram Sensor Channel Functional Test," inspectors identified that the licensee's surveillance procedure unacceptably preconditioned the reactor protection system (RPS) 'B' limit switches during testing of the RPS 'A' switches. The licensee had not previously evaluated the pre-conditioning to determine potential impact to the test and subsequently validated the inspectors' assessment that the test methodology did unacceptably precondition the 'B' RPS limit switches. The issue was documented in the corrective action program as Issue Report 1155212. The procedure was revised and subsequent retesting on March 26 and 27, 2011, demonstrated that all MSIV RPS limit switches were operable.

This issue was more than minor because, if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern in that preconditioning could mask a condition which would prevent an automatic actuation of RPS on MSIV closure. Inspectors performed the SDP phase 1 screening using IMC 0609, Attachment 4, Table 4a, Mitigating Systems Cornerstone column, and answered all questions "No." Therefore, this finding is Green, or very low safety significance. The issue was considered a legacy issue and no cross-cutting aspect was assigned.

Inspection Report# : [2011002](#) (*pdf*)

Significance:  Mar 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

UNIT 1/2 EDG OUTPUT BREAKER FAILURE TO UNIT 2

A self-revealed finding of very low safety significance (Green) and associated NCV of Technical Specification 5.4.1.a was identified on March 7, 2011, when a broken wire lug prevented closure of the 1/2 emergency diesel generator (EDG) output supply breaker to Unit 2 during core spray system logic testing. The failure to identify or correct wire routing deficiencies during cubicle inspections was a performance deficiency and a finding. The inspectors identified that work instructions did not contain sufficient detail to ensure that breaker wiring was configured correctly and the ability to perform safety functions was not adversely impacted. The broken lug was repaired and the 1/2 EDG was declared operable to Unit 2 on March 8, 2011. The issue was documented in the corrective action program as Issue Report 1184304.

This issue was more than minor because, if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern in that similar failures could result in a loss of safety function. Inspectors performed the SDP phase 1 screening using IMC 0609, Attachment 4, Table 4a, Mitigating Systems Cornerstone column, and answered all questions "No." Therefore, this finding screens as Green, or very low safety significance. The inspectors identified that this finding has a cross-cutting aspect in the Problem Identification and Resolution - Operating Experience Component. Specifically, the licensee failed to implement and institutionalize internal operating experience concerning the improper routing of cubicle wiring through appropriate changes to the station preventative maintenance program (P.2(b)).

Inspection Report# : [2011002](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Significance: SL-IV Jun 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Changes to EAL Basis Decreased the Effectiveness of the Plan without Prior NRC Approval.

The inspector identified a violation of very low safety significance involving a Severity Level IV NCV of 10 CFR 50.54(q) for failing to obtain prior approval for an emergency plan change which decreased the effectiveness of the plan. Specifically, the licensee modified the Emergency Action Level (EAL) Basis in EAL HU6, Revision 22, which indefinitely extended the start of the 15 minute emergency classification clock beyond a credible notification that a fire is occurring or indication of a valid fire detection system alarm. This change decreased the effectiveness of the emergency plan by reducing the capability to perform a risk significant planning function in a timely manner.

The violation affected the NRC's ability to perform its regulatory function because it involved implementing a change that decreased the effectiveness of the emergency plan without NRC approval. Therefore, this issue was evaluated using Traditional Enforcement. The NRC determined that a Severity Level IV violation was appropriate due to the reduction of the capability to perform a risk significant planning standard function in a timely manner. The licensee entered this issue into its corrective action program and revised the EAL basis to restore compliance. (1EP4)

The associated performance deficiency is tracked as item 2011-503-02.

Inspection Report# : [2010503](#) (pdf)

Significance:  Jun 23, 2011

Identified By: NRC

Item Type: FIN Finding

Changes to EAL Basis Decreased the Effectiveness of the Plan without Prior NRC Approval.

The inspector identified a finding of very low safety significance involving a Severity Level IV NCV of 10 CFR 50.54 (q) for failing to obtain prior approval for an emergency plan change which decreased the effectiveness of the plan. Specifically, the licensee modified the Emergency Action Level (EAL) Basis in EAL HU6, Revision 22, which indefinitely extended the start of the 15 minute emergency classification clock beyond a credible notification that a fire is occurring or indication of a valid fire detection system alarm. This change decreased the effectiveness of the emergency plan by reducing the capability to perform a risk significant planning function in a timely manner.

The finding was more than minor using IMC 0612, because it is associated with the emergency preparedness cornerstone attribute of procedure quality for EAL and emergency plan changes, and it adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Therefore, the performance deficiency was a finding. Using IMC 0609, Appendix B, the inspector determined that the finding had a very low safety significance because the finding is a failure to comply with 10 CFR 50.54(q) involving the risk significant planning standard 50.47(b)(4), which, in this case, met the example of a Green finding because it involved one Unusual Event classification (EAL HU6).

Due to the age of this issue, it was not determined to be reflective of current licensee performance and therefore a cross-cutting aspect was not assigned to this finding. (Section 1EP4)

The associated traditional enforcement item is tracked as item 2011-503-01.

Inspection Report# : [2010503](#) (pdf)

Occupational Radiation Safety

Public Radiation Safety

Significance: SL-IV Dec 31, 2010

Identified By: NRC

Item Type: FIN Finding

FAILURE TO UPDATE THE UFSAR FOR FIRE PROTECTION DOCUMENTS

A Severity Level IV NCV of 10 CFR 50.71(e), "Periodic Update of the Final Safety Analysis Report," and an accompanying Green finding were identified by the inspectors for the failure to update documents incorporated by reference in the Updated Final Safety Analysis Report (UFSAR) and provided to the NRC in UFSAR updates. Specifically, the licensee did not update dose consequence calculations for a fire in the intermediate radwaste storage facility (IRSF) to reflect changes in packaging methods of solid radioactive waste material stored in the IRSF and used to provide a basis for determining if the increase in event consequences to offsite dose resulting from a fire in the facility was not more than minimal. Corrective actions included revision of the calculations and implementation of procedural controls to limit activity stored in the building to ensure offsite dose limits were not challenged in the event of a fire.

This finding was determined to be more than minor using IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," because if left uncorrected the performance deficiency could have led to a more significant safety concern. Specifically, failure to update the UFSAR or associated licensing basis documents impacts the licensee's ability to adequately evaluate plant changes under the 10 CFR 50.59 processes and could lead to the licensee erroneously making unacceptable changes to the facility. The phase 1 SDP screening performed by the inspectors concluded that, since no actual release had occurred, no dose was received as a result of the issue, and the probability of the initiating design basis fire for the IRSF was extremely low, both the Radioactive Material Control and the Effluent Release Program flowcharts of IMC 0609 Appendix D, "Public Radiation Safety Significance Determination Program," determine the finding was of very low safety significance (Green). The inspectors determined that this finding did not reflect present performance because it is a legacy issue with changes made to the facility more than 10 years previously; therefore, there was no cross-cutting aspect associated with this finding.

The associated Performance Deficiency is tracked as item 2010-005-02.

Inspection Report# : [2010005](#) (pdf)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO UPDATE THE UFSAR FOR FIRE PROTECTION DOCUMENTS

A Severity Level IV NCV of 10 CFR 50.71(e), "Periodic Update of the Final Safety Analysis Report," and an accompanying Green finding were identified by the inspectors for the failure to update documents incorporated by reference in the Updated Final Safety Analysis Report (UFSAR) and provided to the NRC in UFSAR updates. Specifically, the licensee did not update dose consequence calculations for a fire in the intermediate radwaste storage facility (IRSF) to reflect changes in packaging methods of solid radioactive waste material stored in the IRSF and used to provide a basis for determining if the increase in event consequences to offsite dose resulting from a fire in the facility was not more than minimal. Corrective actions included revision of the calculations and implementation of procedural controls to limit activity stored in the building to ensure offsite dose limits were not challenged in the event of a fire.

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The associated traditional enforcement violation is tracked as item 2010-005-01.

Inspection Report# : [2010005](#) (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

Last modified : October 14, 2011