

Surry 1

3Q/2010 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

Inadequate Rigging Practices Result in Damage to Safety Related Equipment

A self-revealing Green Finding was identified for failure to adequately rig a 300 pound motor in the auxiliary building in accordance with the manufacturer's recommendations on May 11, 2010. As a result, the motor slipped from its rigging and dropped approximately 15 feet onto the A component cooling water (CCW) pump motor below, damaging the motor's cabling and electrical junction box. The CCW pump was declared inoperable (CR 380834), the damage was repaired, and the CCW pump restored to an operable status on May 15, 2010.

Inspectors determined that the failure to implement adequate rigging practices in accordance with vendor recommendations as required by procedure MA-AA-101, Revision 5, "Fleet Lifting and Material Handling" constituted a performance deficiency and a finding which was reasonably within the licensee's ability to foresee and correct and which should have been prevented. The finding is similar to MC 0612, Appendix E example 4.f, and is more than minor because it resulted in damage to and inoperability of a risk significant component. The finding is associated with the human performance attribute of the initiating events cornerstone and adversely affected the cornerstone objective to limit the likelihood of those events which upset plant stability and challenge critical safety functions during shutdown as well as power operations because a loss of the component cooling water system would have resulted in a unit transient. The finding, evaluated per Attachment 4 of MC-0609, "Phase 1 – Initial Screening and Characterization of Findings," was determined to be of very low safety significance (Green) because it did not contribute to both the likelihood of a plant transient and the loss of accident mitigation equipment. This finding has a cross-cutting aspect in the area of human performance, decision making because the licensee did not make safety/risk significant decisions using a systematic process, especially when faced with uncertain decisions, to ensure safety is maintained (H.1(a)). Specifically, the rigging team made safety/risk significant decisions within lifting/rigging procedures that did not include a systematic process for evaluating each lift, especially loads <5000 lbs in the vicinity of risk significant equipment.

Inspection Report# : [2010003](#) (*pdf*)

Mitigating Systems

Significance:  Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Demonstrate that the Reliability of Systems or Components were effectively controlled per 10 CFR 50.65 (a)(2)

The NRC identified a Green Non-Cited Violation of 10CFR50.65 a(2) for the licensee's failure to demonstrate that the reliability of High Safety Significant (HSS) systems and Low Safety Significant (LSS) systems in stand-by was being effectively controlled through the performance of appropriate preventative maintenance, such that the systems or components remain capable of performing their function. Specifically, the licensee's MR program would not demonstrate that a system should remain in category a(2) as defined by regulatory requirements.

The inspectors determined the licensee's MR program could not demonstrate that reliability of High Safety Significant (HSS) systems and Low Safety Significant (LSS) systems in stand-by were being effectively controlled through the performance of appropriate preventative maintenance, such that the systems or components remain capable of performing their function is a performance deficiency. Specifically, the monitoring established by the

license did not effectively demonstrate that systems in a(2) were being effectively controlled through performance of appropriate preventative maintenance. This masking of poor equipment performance does not allow the licensee to determine if a system should be in increased monitoring of a(1).

The finding was more than minor because it adversely affected the equipment performance attribute of the reactor safety mitigating systems cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of HSS and LSS systems to perform their functions when required. Specifically, multiple HSS and LSS systems could have a high probability of failure, because poor equipment performance would not be recognized by the licensee. This could prevent a poor performing system from being placed into the a(1) category when required and appropriate corrective action would not be taken.

The finding was evaluated using MC-0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," and determined to be of very low safety significance (Green), because the finding did not involve an actual failure of equipment. This finding had a crosscutting aspect in the area of human performance and resources because the licensee did not ensure that personnel, procedures, and other resources were available and adequate to assure proper implementation of MR program. The MR personnel did not have the training required to implement the program within the required industry regulations and guidelines (H.2.b).

Inspection Report# : [2010003](#) (*pdf*)

Significance:  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to identify a non-conservative error in the quarterly TS surveillance for the Unit 1 A battery

The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action" for failure to identify that a non-conservative error had been introduced into the Unit 1 A main station battery quarterly technical specification surveillance procedure (CR 366388). The licensee modified the procedure to eliminate the non-conservative error.

The inspectors determined the failure to identify a non-conservative error which was introduced into the TS quarterly surveillance procedure following the replacement of individual battery cells, was a condition adverse to quality and a performance deficiency which was reasonably within the licensee's ability to foresee and correct, and should have been prevented. The finding was more than minor because if left uncorrected the non-conservative error in 1-EPT-0103-01 would have the potential to lead to a more significant safety concern. Specifically, this is because the error was large enough to mask cell degradation and an inoperable cell. The finding was associated with the equipment performance attribute of the reactor safety mitigating systems cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of the safety related 125 VDC station batteries that provide class 1E backup power to risk significant components needed to prevent undesirable consequences during a loss of offsite power event. The finding was evaluated using MC-0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," and determined to be of very low safety significance (Green) because operability of the Unit 1 A battery was not lost and the error was removed prior to the next quarterly surveillance. This finding had a cross cutting aspect in the area of problem identification and resolution because the licensee did not evaluate and communicate relevant external OE, including vendor recommendations, to affected internal stakeholders in a timely manner (P.2(a)). Specifically, the caveat to have cells on a float charge for 72 hours was not fully evaluated when the battery cells were replaced.

Inspection Report# : [2010002](#) (*pdf*)

Barrier Integrity

Significance:  Dec 31, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inoperability of MCR isolation Damper 1-VS-MOD-103D due to failure to promptly identify and correct

internal hydraulic leakage

A self-revealing Green NCV of 10 CFR 50 Appendix B, Criterion XVI, was identified for the failure to correct a condition adverse to quality which led to main control room isolation damper 1-VS-MOD-103D being inoperable for approximately 19 hours on September 21-22, 2009 (CR 349075). The actuator was repaired and is scheduled for replacement in 2010.

The finding, associated with the performance attribute of the barrier integrity cornerstone, is more than minor because it adversely affected the cornerstone objective, as it relates to control room integrity, to provide reasonable assurance physical design barriers protect public health and safety. The finding, evaluated per MC-0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," was determined to be of very low safety significance (Green) because it did not result in a loss of safety function or loss of a single train of the control room isolation boundary for more than its allowed outage time. This finding has a crosscutting aspect in the area of human performance, resources, in that equipment and other resources were not made available to assure nuclear safety by minimizing preventative maintenance deferrals (H.2.a).

Inspection Report# : [2009005](#) (pdf)

Significance:  Dec 31, 2009

Identified By: Self-Revealing

Item Type: FIN Finding

Failure to perform an adequate operability determination for main control room isolation damper 1-VS-MOD-103D

A self-revealing Green Finding was identified for the incorrect operability determination of main control room isolation damper 1-VS-MOD-103D. The damper, declared operable and left in-service following loss of power to its hydraulic pump on September 21, 2009 (CR 349003), failed to close on demand, on September 22, 2009. The damper was inoperable for approximately 19 hours (CR 349075) before power was restored to the pump, the damper closed, and the actuator repaired.

The finding, associated with the performance attribute of the barrier integrity cornerstone, is more than minor because it adversely affected the cornerstone objective as it relates to control room integrity, to provide reasonable assurance physical design barriers protect public health and safety. The finding, evaluated per MC-0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," was determined to be of very low safety significance (Green) because it did not result in a loss of safety function or the loss of a single train of the control room isolation boundary for more than its allowed outage time. This finding has a cross-cutting aspect in the area of problem identification, corrective action program, in that an adequate operability assessment that thoroughly evaluated the degraded condition of 1-VS-MOD-103D was not performed (P.1.c).

Inspection Report# : [2009005](#) (pdf)

Significance:  Oct 02, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Demonstrate Effective Preventive Maintenance of Safety Injection Check Valves nor Set Goals and Monitor under 10CFR50.65(a)(1)

The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Plants," for failure to demonstrate effective preventive maintenance of Unit 1 low head safety injection (LHSI) cold leg check valves in accordance with 10CFR50.65(a)(2) and not establish goals and monitor against those goals in accordance with 10CFR50.65(a)(1).

The finding is more than minor because it affected the Barrier Integrity cornerstone objective of providing reasonable assurance that physical design barriers (e.g., reactor coolant system (RCS)) protect the public from radionuclide releases caused by accidents or events. Specifically, the finding affected the LHSI cold leg check valves, which provide an isolation barrier from the high pressure RCS when the SI System is in standby to ensure that the integrity of the reactor RCS boundary is maintained. The finding is also associated with the cornerstone attribute of reactor coolant system equipment and barrier performance. The inspectors determined that this performance deficiency was a separate consequence of the degraded performance associated with the LHSI cold leg check valves. Because of this characterization, the inspectors determined that this issue should not be processed

through the Significance Determination Process. Therefore, in accordance with the guidance in NRC Inspection Procedure 71111.12, Appendix D, this issue was determined to be a maintenance rule Category II finding and is of very low safety significance (Green). Based on the assessment performed by the team on the current licensee's implementation of 10CFR50.65, the results of the licensee's extent of condition review for this finding, and because this finding occurred on November 18, 2007, the team determined that this finding was not indicative of current licensee performance and, therefore, no Cross Cutting Aspect was assigned to this issue. This issue was entered in the licensee's CAP as CR02560. The licensee restored compliance by establishing goals and monitoring the system performance against those goals in accordance with 10CFR50.65(a)(1). (Section 4OA2.a(3)i)
Inspection Report# : [2009006](#) (*pdf*)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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 : November 29, 2010