

# Robinson 2

## 3Q/2010 Plant Inspection Findings

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### Initiating Events

**Significance:**  Sep 30, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

#### **Failure to have adequate work and post maintenance testing instructions for the volume control tank comparator module**

A self-revealing Green finding was identified for a failure to have adequate work orders to properly configure and post maintenance test the volume control tank (VCT) level comparator module. The licensee's procedure ADM-NGGC-0104, Work Implementation and Completion, required that work orders contain all work activities necessary to perform all related work activities including Post Maintenance Testing (PMT). The licensee's work orders for installing a jumper on the VCT level comparator module and for post maintenance testing failed to contain adequate instructions to properly configure (place jumper in correct location) and post maintenance test the volume control tank level comparator module. This resulted in the failure of the charging pump suction to automatically transfer from the volume control tank to the refueling water storage tank (RWST) when the auto transfer VCT low level setpoint was reached. The licensee's identified corrective actions included repairing the subject VCT level module, reviewing the adequacy of other replacement NUS modules that have non-safety control functions and revising the site specific PMT procedures to provide more specific guidance for ensuring that the control loop circuit is adequately tested.

The failure to have adequate work order instructions to properly configure and post maintenance test the volume control tank level comparator module is a performance deficiency. This finding is greater than minor because the failure to auto transfer from the VCT to the RWST could cause a failure of the charging pump, resulting in the loss of seal injection which is a precursor to a seal LOCA. Using IMC 0609, "Significance Determination Process," (SDP) Phase 1 Worksheet, the inspectors concluded that a Phase 2 evaluation was required since the finding could have likely affected other mitigation systems resulting in a total loss of their safety function. This issue was evaluated using IMC 0609, Appendix A (SDP Phase 2) as being potentially greater than green with loss of component cooling water (LOCCW) and loss of service water (LOSW) as the dominant sequences. A phase 3 SDP risk evaluation was performed by a regional senior reactor analyst in accordance with the guidance in IMC 0609 Appendix A utilizing the NRC's Robinson Standardized Plant Analysis Risk (SPAR) model. The VCT level comparator module performance deficiency resulted in a core damage frequency increase of less than  $1E-6$ , Green. The risk was mitigated by the availability of the letdown and normal makeup charging pump suction sources, which would be available under certain conditions reducing the likelihood of an autoswap demand. Another factor which mitigated the risk is that the fire shutdown procedures for most fire areas specify use of a manual RWST supply valve. The performance deficiency is characterized as Green, a finding of very low safety significance. This issue has a cross-cutting aspect in the resources component of the human performance area because the licensee did not provide complete, accurate, and up-to-date work packages for the configuration and testing of the VCT comparator module. (H.2.(c)) (Section 1R19)

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

**Significance:**  Sep 30, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

#### **Failure to design and implement a simulator model that demonstrated reference plant response**

A self-revealing Green NCV of 10 CFR 55.46(c), "Simulation Facilities", was identified for a plant referenced simulator used for administration of operating tests not correctly modeling the reference plant. A loss of electrical power that resulted in a loss of component cooling water (CCW) to the reactor coolant pump seals was not properly modeled in the simulator. When power to safety-related 480 volt bus E-2 was transferred to the emergency diesel generator in the reference-plant, FCV-626, thermal barrier heat exchanger outlet isolation flow control valve, closed. The simulator modeled FCV-626 to respond to CCW flow through the valve and did not model the effect of a loss of

power to the valve operator and associated control circuit. Consequently, with a loss of power to bus E-2, the simulator model allowed this valve to remain open. The licensee documented the issue in Significant Adverse Condition Investigation Report, 390095. As corrective action the licensee changed the simulator modeling to match the plant configuration.

The inspectors determined that the failure of the simulator to accurately demonstrate reference plant response was a performance deficiency. This finding was more than minor because it affected the human performance attribute of the initiating events cornerstone in that the unexpected closure of FCV-626 raises the likelihood of human error in response to a loss and subsequent re-energization of the E-2 Bus. This could challenge reactor coolant pump seal cooling and result in reactor coolant pump seal failure. The finding was evaluated using the Operator Requalification Human Performance SDP (MC 0609, Appendix I) because it was a requalification training issue related to simulator fidelity. The finding was of very low safety significance (Green) because the discrepancy did not have an impact on operator actions resulting in a total loss of RCP seal cooling and subsequent increase in reactor coolant system (RCS) leakage. There is not a cross-cutting aspect associated with the finding because the performance deficiency involving the simulator modeling occurred over 3 years ago and does not reflect current licensee performance. (Section 1R11.2)

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

**Significance:**  Sep 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Deficiencies in non safety-related cable installation result in fire and reactor trip**

A self-revealing Green finding was identified for the licensee's failure to adequately follow guidance in a design change package for the installation of non safety-related 4kV cables. This resulted in cables with design features inappropriate for the application being installed and eventually led to a fire and a reactor trip. Specifically, the licensee failed to follow the cable vendor recommendations and a self-imposed administrative requirement/standard for cable installation contained in cable specification L2-E-035, "Specification for 5,000 Volt Power Cable". The licensee entered this into the CAP as NCR 390095. As corrective actions, the licensee replaced the cable, conduit and other damaged equipment, including evaluation on damage to cables in overhead, and the feeder cables to station service transformer (SST) 2E and 4kV bus 5.

The failure to follow the guidance in the design change package to install non safety-related cables between Bus 4 and Bus 5 in accordance with their design change program and vendor and cable installation specifications was a performance deficiency. This finding was determined to be more than minor because it affected the Initiating Events Cornerstone objective of limiting events that upset plant stability, and was related to the attribute of Design Control (i.e., Plant Modifications). Specifically, the inadequate cable modification was determined to be the root cause of the reactor trip that occurred on March 28, 2010. This deficiency also paralleled Inspection Manual Chapter 0612, Appendix E, Example 2.e, as the licensee did not follow their own administrative requirements and vendor recommendations for cable installation. The performance deficiency was screened using Phase 1 of Inspection Manual Chapter 0609, Significance Determination Process, which determined that because the finding increases the likelihood of a fire, a Phase 3 SDP analysis was required. A phase 3 SDP risk evaluation was performed by a regional senior reactor analyst in accordance with the guidance in IMC 0609 Appendix F utilizing the NRC's Robinson SPAR model. The Phase 3 analysis determined the finding to be of very low safety significance (Green) because the core damage frequency increase was less than 1E-6. There is not a cross-cutting aspect associated with the finding because the performance deficiency involving the cable installation occurred greater than 20 years ago and does not reflect current licensee performance. (Section 4OA5.11)

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

**Significance:**  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to establish an adequate PATH-1 emergency operating procedure**

The inspectors identified an apparent violation (AV) of Technical Specifications (TS) 5.4.1, "Procedures", for the licensee's failure to establish and maintain an adequate emergency procedure that ensured reactor coolant pump

(RCP) seal cooling was maintained following a reactor trip. The licensee has entered this into the CAP as nuclear condition report (NCR) 423147. Corrective actions for this finding are still being evaluated.

The failure to establish and maintain an emergency procedure that would ensure adequate reactor coolant pump seal cooling, preventing seal degradation and a possible seal LOCA was a performance deficiency. The finding is more than minor because it is associated with the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations, specifically a loss of seal cooling to prevent the initiation of a RCP seal loss of coolant accident (LOCA). Using Manual Chapter Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the inspectors determined the finding required a Phase 2 analysis because the finding could result in RCS leakage exceeding Technical Specification limits. The Phase 2 analysis determined that this finding was potentially greater than green; therefore, a Phase 3 analysis is required by a regional senior reactor analyst due to an increase in the likelihood of an RCP seal LOCA. The significance of this finding is designated as To Be Determined (TBD) until the safety characterization has been completed. The cause of this finding had a cross-cutting aspect of Documentation, Procedures, and Component Labeling, in the Resources component of the cross-cutting area of Human Performance, in that the licensee failed to ensure procedures for emergency operations were adequate to assure nuclear safety. (H.2(c)) (Section 40A3.2)

2010013 Report:

The inspectors identified a green NCV of Technical Specifications (TS) 5.4.1, "Procedures", for the licensee's failure to establish and maintain an adequate emergency procedure that ensured reactor coolant pump (RCP) seal cooling was maintained following a reactor trip. The licensee has entered this into the corrective action program (CAP) as nuclear condition report (NCR) 423147. As a corrective action the licensee revised the Path1 procedure for verifying adequate seal cooling to the RCPs.

The failure to establish and maintain an emergency procedure that would ensure adequate reactor coolant pump seal cooling, preventing seal degradation and a possible seal LOCA was a performance deficiency. The finding is more than minor because it is associated with the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations, specifically a loss of seal cooling to prevent the initiation of a RCP seal loss of coolant accident (LOCA). A Phase 3 analysis was performed utilizing the NRC's Robinson Standardized Plant Analysis Risk (SPAR) model and developed an event tree to specifically evaluate the performance deficiency's conditions. The result of the Phase 3 analysis was a core damage frequency increase of  $<1E-6$ /year a finding of very low safety significance. The cause of this finding had a cross-cutting aspect of Documentation, Procedures, and Component Labeling, in the Resources component of the cross-cutting area of Human Performance, in that the licensee failed to ensure procedures for emergency operations were adequate to assure nuclear safety. (H.2(c)) (Section 40A5.02)

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

Inspection Report# : [2010013](#) (pdf)

**Significance:**  Aug 26, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

#### **Failure to Correct a Control Power Fuse Defect in 4kV Breaker 52/24**

A self-revealing finding of very low safety significance was identified for the licensee's failure to follow the site's CAP procedure, CAP-NGGC-0200, "Corrective Action Program," Revision 26; in that a degraded control power condition for the non-vital 4kV Bus 5 feeder breaker 52/24 was not identified and evaluated through an NCR which resulted in inadequate corrective actions leading to a plant trip and a complicated plant fire. The licensee implemented corrective actions to replace the affected breaker and inspect all breakers potentially affected by the same degraded control power condition.

This finding is more than minor because it is associated with Equipment Performance attribute of the Initiating Events Cornerstone and affects the cornerstone objective in that the failure to evaluate and correct the breaker position indicating light, which indicated the lack of breaker control power, resulted in the breaker failing to isolate an electrical fault, resulting in a reactor trip. The inspectors used NRC IMC 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," to evaluate the significance of this issue and determined that this finding

contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. Therefore, further significance determination analysis was performed in accordance with IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations." The inspectors conducted a Phase 3 analysis and determined this finding was of very low safety significance because the performance deficiency did not affect the mitigating capabilities of the auxiliary feedwater system and the feed and bleed safety function. This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to implement the corrective action program with a low threshold for identifying the issue, and ensuring that the issue was identified completely, accurately, and in a timely manner commensurate with its safety significance. (P.1.a)

Inspection Report# : [2010006](#) (*pdf*)

**Significance:**  Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to determine the cause of and take corrective actions to preclude repetition of an identified programmatic deficiency in foreign-material-exclusion controls.**

Green. The inspectors identified a violation of 10 CFR 50, Appendix B, Criterion XVI, for the licensee's failure in 2004 to determine the cause of a programmatic deficiency in foreign-material-exclusion (FME) controls, which resulted in steam generator tube leakage. This licensee entered the issue into the corrective action program as AR 272388 following the issuance of URI 05000261/2008002-01. A revised extent of condition and all corrective actions to the FME program were implemented in 2008.

Failure to evaluate FME programmatic deficiencies in AR 115704 or in any other NCR since 2004 until the issuance of URI 05000261/2008002-01 is a performance deficiency. The inspectors initially screened this issue in accordance with Inspection Manual Chapter 0609 Appendix J for URI 05000261/2008002-1. This screening directed an additional operating cycle be reviewed to provide a basis to evaluate the effectiveness of the licensee's corrective actions. Based on the steam generator tube performance following the most recent refueling outage, with respect to no potential tube ruptures (all tubes sustained 3 times delta Pressure for normal operation) or tubes that should have been repaired as a result of previous inspections, the issue was screened in accordance with Manual Chapter 0609 Appendix A. This finding is more-than-minor because it affects the "Equipment Performance" attribute of the Initiating Events Cornerstone, in that deficiencies in foreign-material-exclusion controls could allow foreign material to enter the steam generators, and the foreign material could initiate a steam generator tube leak or rupture. The finding has very low safety significance because no significant tube damage occurred during the extended significance determination review. The finding is not indicative of current performance in that the timeframe of the performance deficiency was 2004-2007 and therefore a cross-cutting aspect will not be assigned to this issue.

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

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## Mitigating Systems

**Significance:** TBD Sep 30, 2010

Identified By: NRC

Item Type: AV Apparent Violation

**Failure to correctly implement a systems approach to training for the licensed operator requalification program**

The inspectors identified an Apparent Violation (AV) of 10 CFR 55.59(c), "Requalification program requirements", for the licensee's failure to properly implement elements of a Commission approved program developed using a systems approach to training (SAT), that was implemented in lieu of meeting the requirements defined in 10 CFR 55.59 (c). The finding was entered into the licensee's corrective action program as NCR-423232, NCR-423238, and NCR-423239. Corrective actions for this finding are still being evaluated.

The licensee's failure to properly implement elements of a Commission approved requalification program was a performance deficiency. The finding was determined to be more than minor because it was associated with the

Initiating Events Cornerstone and affected the cornerstone's objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the failure to implement training requirements for Path-1 and perform adequate retraining of operators that demonstrated areas of weakness during operating tests contributed to operators' failure to identify and implement actions to mitigate a loss of seal cooling to the reactor coolant pumps (RCPs) during the events of March 28, 2010. Contrary to Augmented Inspection Team Report 05000261/2010009, further inspection revealed that RCP seal injection was not adequate coincident with a loss of cooling to the thermal barrier heat exchanger to the "B" RCP. Using Manual Chapter Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the inspectors determined the finding required a Phase 2 analysis because the finding could result in reactor coolant system (RCS) leakage exceeding Technical Specification limits. The Phase 2 analysis determined that this finding was potentially greater than green; therefore, a Phase 3 analysis is required by a regional senior reactor analyst due to an increase in the likelihood of an RCP seal LOCA. The significance of this finding is designated as To Be Determined (TBD) until the safety characterization has been completed. The cause of this finding was directly related to the cross cutting aspect of Personnel Training and Qualifications in the Resources component of the Human Performance area, in that the licensee failed to ensure the adequacy of the training provided to operators to assure nuclear safety. (H.2(b)) (Section 1R11.3)

#### 2010013 Report:

The inspectors identified a problem associated with the implementation of the Commission approved requalification program developed using a system approach to training, which involves an apparent violation and an associated finding. Specifically, the AV of 10 CFR 55.59(c)4 involves the failure to adequately design and implement training based on learning objectives in that lesson material failed to identify the basis of a procedural action involving reactor coolant pump seal cooling in procedure Path-1, as required by the definition of systems approach to training, Element 3 in 10 CFR 55.4. The associated finding involves the failure to meet Training Program Procedure TTP-200, "Licensed Operator/Shift Technical Advisor Continuing Training Program," which is part of the systems approach to training, by not identifying, documenting, and evaluating operator weaknesses exhibited during evaluated scenarios. As corrective actions, the licensee trained all licensed operators on PATH-1-005 objective requirements and increased the rigor of their remediation program. The finding was entered into the licensee's CAP as NCR-423232, NCR-423238, and NCR-423239.

The licensee's failure to properly implement elements of a Commission approved requalification program was a performance deficiency. The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone in that it affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to implement training requirements for Path-1 contributed to operators' failure to identify and implement actions to mitigate a loss of seal cooling to the reactor coolant pumps during the events of March 28, 2010. A Phase 3 SDP analysis using the NRC's Robinson SPAR model and input from the licensee's full scope model resulted in this finding being characterized as preliminarily White, a finding of low to moderate safety significance. The cause of this finding was directly related to the cross cutting aspect of Personnel Training and Qualifications in the Resources component of the Human Performance area, in that the licensee failed to ensure the adequacy of the training provided to operators to assure nuclear safety. (H.2(b)) (Section 4OA5.03)

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

Inspection Report# : [2010013](#) (*pdf*)

**Significance:** **W** Aug 26, 2010

Identified By: NRC

Item Type: VIO Violation

#### **Failure to Correct a Condition Adverse to Quality in "B" Emergency Diesel Generator Output Breaker 52/27B**

The NRC identified an apparent violation (AV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action" for the licensee's failure to promptly correct a condition adverse to quality involving the failure of the "B" Emergency Diesel Generator (EDG) output breaker 52/27B to close in October 2008 due to a stuck control relay linkage. As a result, the failure recurred in April 2009 and caused the EDG to become inoperable. The licensee implemented actions to correct the cause of the breaker failure and to inspect all similar breakers susceptible to the same condition.

This finding is more than minor because it is associated with the Equipment Performance attribute of the Mitigating

Systems Cornerstone and adversely affects the cornerstone objective in that the failure to correct the “B” EDG output breaker 52/27B resulted in the inoperability of the “B” EDG for a period greater than the allowed outage time in plant Technical Specifications (TS). An SDP analysis using the NRC’s Robinson Standardized Plant Analysis Risk (SPAR) model and input from the licensee’s full scope model resulted in this finding being characterized as preliminarily White, a finding of low to moderate safety significance. This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to implement the corrective action program with a low threshold for identifying the issue, and ensuring that the issue was identified completely, accurately, and in a timely manner commensurate with its safety significance (P.1.a).

10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, and non-conformances are promptly identified and corrected. Technical Specifications (TS) 3.8.1, Condition B, requires that an inoperable Emergency Diesel Generator (EDG) shall be restored to operable status within 7 days.

Contrary to the above, on October 15, 2008, Carolina Power and Light Company (Licensee) failed to assure that a condition adverse to quality, involving an EDG output breaker 52/27B failure-to-close malfunction, was promptly corrected. Specifically, indications of control relay malfunction during post-modification testing existed but were not identified and corrected. As a result, a similar malfunction during a surveillance test caused the “B” EDG to become inoperable, from March 28 to April 23, 2009, which exceeded the TS allowed outage time.

Inspection Report# : [2010006](#) (*pdf*)

Inspection Report# : [2010014](#) (*pdf*)

**Significance: SL-III** Aug 26, 2010

Identified By: NRC

Item Type: VIO Violation

**Materially Inaccurate Information Provided to NRC in LER 2009-001 which impacted the Regulatory Process**

The NRC identified an AV of 10 CFR 50.9(a) for failure to provide accurate and complete information in Licensee Event Report (LER) 05000261/2009-001-000. This information was material to NRC because it was used, in part, as the basis for exercising enforcement discretion for a violation of TS Action Statement 3.8.1.B.4 and Condition C. This AV has been entered into the licensee’s corrective action program as NCRs 413010 and 419191 to correct the inaccurate and incomplete information.

This violation is being treated as traditional enforcement because the failure to provide complete and accurate information impacted the regulatory process. The inspectors determined the severity level of this apparent violation is potentially greater than Severity Level IV. Cross-cutting aspects are not assigned to violations being dispositioned through the traditional enforcement process.

10 CFR 50.9(a) requires, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material respects.

Contrary to the above, on June 18, 2009, the Licensee submitted information that was not complete and accurate in all material respects. Specifically, the Licensee submitted Licensee Event Report (LER) 05000261/2009-001-00 which described the corrective actions taken on October 15, 2008, for a similar “B” EDG output breaker failure. The LER stated that the breaker was tested in accordance with Preventive Maintenance (PM) Procedure, PM-163, “Inspection and Testing of Circuit Breakers for 480 Volt Bus E2” and that the procedure was successfully completed. The NRC determined that the Licensee did not conduct full testing as stated, and had only completed the instructions for returning the breaker to service. The information provided in the LER was material because the NRC relied on this information to exercise enforcement discretion for the 2009 failure which would likely have resulted in an additional inspection effort.

This is a Severity Level III violation (Enforcement Policy, Supplement VII.C.1).

Inspection Report# : [2010006](#) (*pdf*)

Inspection Report# : [2010014](#) (*pdf*)

**Significance:**  Mar 31, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Inaccurate Drawings Result In Loss of RWST Level Indication Due to Freezing**

A self-revealing non-cited violation of Technical Specification 5.4.1, Procedures, was identified in that the licensee used inaccurate drawings to hang clearances on freeze protection circuits which resulted in the Refueling Water Storage Tank (RWST) level instrument lines freezing. The licensee failed to properly translate the design of the freeze protection circuits to the drawings used in the clearances, causing the RWST level sensing line freeze protection to be unavailable. The licensee removed the clearance, re-energized the freeze protection and level indications were restored. The licensee entered the drawing discrepancy issue into the corrective action program as AR 374561

The disabling of the RWST level instrument freeze protection during the RHR pump work is a performance deficiency. The finding is more than minor because it affected the mitigating systems cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events. Specifically, the RWST level instrument line freezing caused the required post accident instrumentation of the RWST to be inoperable. Using Appendix A of the Significance Process (SDP) described in IMC 0609, Mitigating System Cornerstone, this finding was determined to have very low safety significance (Green) because no loss of operability or functionality of the RWST resulted from the level sensing line freezing. There is no cross-cutting aspect of this NCV since the incorrect drawing that resulted in the inaccurate clearance was last revised in 1986 and is not indicative of current licensee performance.

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

**Significance:**  Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**“A” Emergency Diesel Generator Fuel Oil Transfer Pump Power Supply Cable Subjected to Continuous Submersion in Water Design Deficiency**

The inspectors identified a NCV of 10 CFR Part 50, Appendix B, Criterion III, Design Control, in that the licensee failed to maintain a safety-related cable in an environment for which it was designed. Specifically, the “A” Emergency Diesel (EDG) Fuel Oil Transfer Pump power supply cable was exposed to continuous submersion in water. The licensee removed the accumulated water from the hand hole, resealed, and reinstalled the hand hole cover. The licensee entered the issue into the corrective action program as AR 370343.

Failure to maintain a safety related cable in an environment for which it was designed is a performance deficiency. The finding is more than minor in accordance with IMC 0612, Appendix B (Block 9, Figure 2), “Issue Screening,” because if left uncorrected, the performance deficiency has the potential to lead to a more significant safety concern. Specifically, subjecting the “A” EDG fuel oil transfer pump cable to continuous submersion could, over time degrade the cable and result in failure. In accordance with IMC 0609 (Table 4a), “Phase 1 – Initial Screening and Characterization of Findings”, the finding was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency which resulted in a loss of operability or functionality. The cause of the finding was directly related to the problem evaluation cross-cutting aspect in the corrective action program component of the Problem Identification and Resolution area because the licensee did not thoroughly evaluate the condition described in NRC Generic Letter 2007-01 Inaccessible or Underground Power Cable Failures that Disable Accident Mitigation Systems or Cause Plant Transients (P.1 (c))

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

**Significance:**  Dec 31, 2009

Identified By: NRC

Item Type: FIN Finding

**Failure To Identify Oil Leakage On A Operating Charging Pump**

The inspectors identified a Green finding for the licensee’s failure to identify an oil leak on the “A” charging pump. This failure was determined to be a performance deficiency with respect to licensee procedure OMM-001-11, “Logkeeping,” which requires oil leakage be identified and abnormal conditions reported to shift management. The licensee responded by stopping the “A” charging pump to verify proper oil level. An addition of 6.5 quarts was required to restore the oil level to normal. Additionally, to maintain operability, the licensee established a

compensatory action to stop the “A” charging pump every three days to verify oil level until the oil leak was repaired. The licensee entered the issue into the corrective action program as AR 360876.

The finding is more than minor because if left uncorrected the performance deficiency would have the potential to lead to a more significant safety concern. Given the history of continuous operation of the charging pumps for up to 37 days, if the identified oil leak remained uncorrected, a loss of lubrication failure of the “A” charging pump would occur. The charging pumps are technical specification required equipment and are used in the emergency operating procedures to mitigate the consequences of an event. This finding was determined to be green because no loss of operability or functionality of the “A” charging pump resulted from the identified oil leakage. The apparent cause of this finding was a failure to implement a procedural requirement to identify and communicate an oil leak to shift management. The inspectors determined no cross-cutting aspect was associated with this performance deficiency.

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

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## **Barrier Integrity**

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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## **Public Radiation Safety**

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## **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.

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## **Miscellaneous**

Last modified : January 06, 2011