

Catawba 1

2Q/2010 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Jun 28, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Emergency Lighting Units Not Installed as Required by the Fire Protection Program

Green: The inspectors identified a non-cited violation of Catawba Unit 1 Operating License Condition 2.C(5), in that the licensee failed to install emergency lighting units (ELUs) in accordance with the approved fire protection program. Specifically, ELUs were not installed in some areas in the Unit 1 turbine building for access/egress and where local operator manual actions were required to support post-fire safe shutdown for a fire in the main control room. The licensee initiated Problem Investigation Process C-10-2815 to address the ELU issue associated with the Procedure AP/1/A15500/017.

The licensee's failure to install ELUs for local operator manual actions, as required by the Catawba fire protection program, is a performance deficiency. The finding is more than minor because it is associated with the reactor safety Mitigating Systems cornerstone attribute of protection against external factors (i.e., fire), and it affects the objective of ensuring the reliability and capability of systems that respond to initiating events. Specifically, the finding could affect the licensee's ability to perform local operator actions required to achieve and maintain post-fire safe shutdown conditions following a main control room fire. The team completed a Phase 1 screening of the finding in accordance with IMC 0609, Appendix F, Fire Protection SDP Phase 1

Qualitative Screening Approach, Step 1.3, and concluded that the finding, given its low degradation rating, was of very low safety significance (Green), because the operators had a high likelihood of completing the tasks using flashlights or battery-powered portable hand lights. Consideration was given to the fact that operators normally carry flashlights and would have access to the portable hand lights to provide the necessary lighting. The cause of this finding has a cross-cutting aspect in the Resources component of the Human Performance area, in that the licensee did not ensure that equipment such as fixed 8-hour emergency lighting units were available to support post-fire safe shutdown actions (H.2 (d)). (Section 1R05.05)

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

Significance:  Dec 31, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Underground Fuel Oil Storage Tank Vent Tornado Missile Protection

A NRC-identified Green NCV of 10 CFR 50, Appendix B, Criterion III, was identified in that the installed emergency diesel generator (EDG) fuel oil storage tank vents did not meet the design basis of bending without crimping. The licensee completed corrective actions to install tornado missile protection to prevent crimping of the vents.

The licensee's failure to correctly translate the licensing basis into specifications for the vent piping was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone design control attribute and adversely impacted the cornerstone objective in that the vent piping could bend and completely crimp on impact of a tornado generated soft missile. A Phase 3 analysis was required because the finding involved the loss or degradation of equipment or function specifically designed to mitigate a severe weather initiating event. A qualitative assessment was performed to determine the risk significance because factors required for determining the risk were not easily quantifiable. Based on the qualitative assessment, the finding was determined to be of very low safety significance (Green). A cross-cutting aspect for this

issue was not identified as it was determined to be a legacy design issue and not indicative of current licensee performance. (Section 40A5.3)

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

Significance:  Oct 15, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to monitor the turbine-driven auxiliary feedwater pump sump valves for units 1 and 2

The team identified a non-cited violation of 10 CFR 50.65(a)(1) for the licensee's failure to monitor the turbine-driven auxiliary feedwater pump (CAPT) sump valves for Units 1 and 2. PIPs C-09-05020 and C-09-04390 initiated immediate corrective actions, including testing of the subject valves during the inspection, wherein valve 1WL848 failed to stroke. Additionally, the licensee increased the maintenance category of the affected components and made procedural modifications to provide positive valve position controls.

The team determined that the licensee's failure to monitor the performance and condition of Valve 1WL848 was a performance deficiency. This finding is more than minor because it is associated with equipment performance attribute of the Mitigating Systems cornerstone and adversely 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 perform periodic testing or preventative maintenance resulted in a lack of reasonable assurance that the valves would perform their function of protecting CAPT. The team determined that the finding is of very low safety significance (Green) using the SDP because the finding did not represent an actual loss of safety function. This finding was reviewed for cross-cutting aspects and none were identified since the performance deficiency was not indicative of current licensee performance. (Section 1R21.2.5)

Inspection Report# : [2009006](#) (*pdf*)

Significance:  Sep 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to perform required hourly fire watch patrols

The NRC identified a non-cited violation of 10 CFR 50.48 when a contract fire watch employee failed to complete fire watch surveillances on twelve occasions. The fire watch employee pre-signed the fire watch Impairment and Compensatory Measures (ICM) form then failed to perform the associated fire watch surveillance. The licensee entered the deficiency into the corrective action program for resolution.

This finding is more than minor because it is associated with the "Protection Against External Factors" attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of the systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the finding to be of very low safety significance (Green) because the missed fire watch surveillance reflected a low degradation of the Fire Prevention and Administrative Controls fire protection program element in that other area fire protection defense-in-depth features such as automatic fire detection (smoke detectors), automatic fire suppression capability (sprinklers), manual suppression capability (fire brigade), and safe shutdown capability from the main control room were still available. The finding directly involved the cross-cutting area of Human Performance under the "Supervisory and Management Oversight of Work" aspect [H.4(c)] of the "Work Practices" component. (Section 1RO5.1)

Inspection Report# : [2009007](#) (*pdf*)

Significance: SL-IV Sep 30, 2009

Identified By: NRC

Item Type: VIO Violation

Inaccurate fire watch records

The NRC identified a violation of 10 CFR 50.9(a) requirements when it was determined that multiple contract fire watch employees deliberately pre-signed fire watch ICM forms resulting in inaccurate fire watch records. Specifically, on seven occasions fire watch employees deliberately pre-signed the fire watch ICM forms and then another qualified employee performed the fire watch but failed to correct the inaccurate ICM form. The licensee entered the deficiency

into the corrective action program for resolution.

This issue was dispositioned using traditional enforcement due to the willful aspects of the performance deficiency. Furthermore, the failure to provide complete and accurate information has the potential to impact the NRC's ability to perform its regulatory function. Although the investigation revealed that no fire watch surveillances were actually missed, this issue is considered more than minor due to the willful aspects of the performance deficiency. In accordance with the guidance in Supplement VII of the Enforcement Policy, this issue is considered a Severity Level IV violation because it involved information that the NRC required be kept by a licensee that was incomplete or inaccurate and of more than minor safety significance. No cross-cutting aspect was identified because this performance deficiency was dispositioned using traditional enforcement. (Section 1RO5.2)

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

Inspection Report# : [2009007](#) (pdf)

Barrier Integrity

Significance:  Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Enter a Steam Leak on Safety Related Main Steam Piping in the Corrective Action Program

•Green. An NRC-identified non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, was identified for the licensee's failure to adequately identify and correct a steam leak on a safety-related portion of the Main Steam system. The issue was entered into the licensee's corrective action program as PIP C-10-3092 to evaluate the leak for operability and establish corrective actions. An E2 work request was also written to repair the leak.

The finding was determined to be more than minor because if left uncorrected the steam leak could degrade and exceed the value used in the existing analysis for a Design Basis Steam Generator Tube Rupture and also could affect manual operation of equipment during execution of emergency and abnormal operating procedures. It was determined to be of very low safety significance (Green) using IMC 0609, Appendix H Table 4.1, Containment-Related SSCs Considered for Large Early Release Frequency Implications, due to the small size of the flow element line. This finding had a cross-cutting aspect in the corrective action program component of the area of problem identification and resolution because the steam leak was not identified completely, accurately, and in a timely manner (P.1(a)). (Section 4OA2.2)

Inspection Report# : [2010003](#) (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 : September 02, 2010