

Catawba1

2Q/2008 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Mar 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify an Inoperable CRACWS Chiller Prior to Removing the Remaining Chiller from Service Placed Both Units in TS 3.0.3 for Approximately 110 minutes (Section 40A2.2(2))

The inspectors identified a Green non-cited violation of Technical Specification 5.4.1.a, for the failure to adequately establish and implement procedures required by Regulatory Guide 1.33, Appendix A, Section 1.b, Administrative Procedures. Specifically, the licensed operators in the main control room and work control center failed to identify that the “A” Control Room Area Chilled Water System (CRACWS) was inoperable prior to removing the remaining chiller from service for testing. This placed both Catawba units in Technical Specification 3.0.3 for approximately 110 minutes without any of the required actions being taken.

The finding was more than minor because it was associated with the Configuration Control attribute of the Barrier Integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers provide protection from radionuclide releases caused by accidents or events. While the Control Room Area Ventilation System (CRAVS) would have remained operable in terms of filtering air in the areas it services, without chilled water providing cooling, operators would have had to bypass the filtered air paths using Abnormal Operating Procedure (AP) guidance in order to maintain area temperatures at values needed to ensure equipment in the areas remained operable over time. The inspectors determined the finding to be of very low safety significance using the Phase 1 Screening Worksheet of Inspection Manual 0609, “Maintenance Risk Assessment and Risk Significance Determination Process”. The issue would only become evident if the 2A diesel generator failed to re-energize the 2A 4.16kV vital bus following a loss of offsite power (LOOP) event with the “A” chiller control power aligned to the 2A bus and the length of time available before the AP would have had to be entered and the filtered air flow paths bypassed.

The finding directly involved the cross-cutting area of Human Performance under the “Procedural Compliance” aspect of the “Work Practices” component, in that the licensee failed to effectively follow multiple station procedures to ensure redundant CRACWS chillers were not removed from service, resulting in a potential loss of chilled water cooling for areas supplied by the CRAVS [H.4.b]. This issue has been entered into the licensee’s Corrective Action Program as Problem Investigation Process report (PIP) C-07-7073. (Section 40A2.2(2))

Inspection Report# : [2008002 \(pdf\)](#)

Significance:  Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform Required ASME Code Section XI Leakage Testing

The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.55a(g)(4) for the failure to perform periodic leakage testing of buried piping portions of the service water system as required by Section XI of the ASME Code for the second 10-year Inservice Inspection interval for Units 1 and 2. The licensee entered this issue into their corrective action program for resolution.

This finding is more than minor because it affects the Equipment Performance attribute of the Mitigating Systems

cornerstone objective of ensuring availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance because it did not represent an actual loss of a system's safety function. (Section 1R08.1)

Inspection Report# : [2007005](#) (pdf)

Significance:  Aug 03, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Degraded Fire Barrier Penetration Seal

Inspectors identified a non-cited violation (NCV) of Unit 1 Operating License Condition 2.C.(5) for the licensee's failure to replace or reinstall a 3" x 3" section of fiberboard damming material on the outside surface of the silicone foam fire barrier penetration seal G-AX-365-W-001 located in the 3-hour fire rated wall separating the Unit 1 Motor Control Center room (Fire Area 11, Room 334) from the Unit 1 Cable Shaft (Fire Area 45, Room 350A). This NCV was entered into the licensee's corrective action program as Problem Investigation Process report C-07-03254.

The finding is greater than minor because it is associated with the protection against external factors attribute, i.e. fire, and it degraded the reactor safety Mitigating Systems cornerstone objective. The inspectors completed a Phase 1 screening of the finding in accordance with Inspection Manual Chapter 0609, Appendix F, Fire Protection Significance Determination Process Phase 1 Qualitative Screening Approach, Step 1.3, and concluded that the finding, given its low degradation rating, had very low safety significance (Green) and no further analysis was required. (Section 1R05.03.b)

Inspection Report# : [2007007](#) (pdf)

Significance:  Aug 03, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

ELU Replacement Batteries Not Tested After Installation

Inspectors identified a non-cited violation (NCV) of Units 1 and 2 Operating License Condition 2.C.(5) for failure to follow the emergency battery lighting maintenance and testing procedure IP/0/B/3540/002, Emergency Battery Lighting Periodic Maintenance and Testing, Revision 33, during replacement of failed batteries. The licensee stated that the batteries were routinely tested prior to installation while in the maintenance shop; however, this bench test was neither required by the periodic maintenance and testing procedure nor documented in any test record. This NCV was entered into the licensee's corrective action program as Problem Investigation Process report C-07-2025.

This finding was more than minor because it was associated with the external factors attribute (i.e., fire) of the Mitigating Systems cornerstone and it affected the cornerstone objective. The finding involved systems or components (i.e., emergency lights) required for post-fire safe shutdown of the reactor. The inspectors completed a Phase 1 screening of the finding in accordance with Inspection Manual Chapter 0609, Appendix F, Fire Protection Significance Determination Process Phase 1 Qualitative Screening Approach, Step 1.3, and concluded that the finding, given its low degradation rating, had very low safety significance (Green) and no further analysis was required. The finding directly involved the cross-cutting area of Human Performance under the "procedural compliance" aspect of the "Work Practices" component, in that the licensee failed to effectively communicate expectations regarding procedure compliance for testing of replacement emergency lighting batteries (H.4.b). (Section 1R05.09.b)

Inspection Report# : [2007007](#) (pdf)

Barrier Integrity

Significance:  Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Promptly Identify and Correct a Significant Condition Adverse to Quality Affecting the Ability of Both CRAVS Chillers to Operate as Designed Following a SBO due to Inadequate Troubleshootin

The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, for the licensee's failure to promptly identify and correct a significant condition adverse to quality affecting the ability of both control room area ventilation system (CRAVS) chillers to operate as designed following a station blackout (SBO).

The finding was more than minor because it was associated with the Configuration Control attribute of the Barrier Integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers provide protection from radio-nuclide releases caused by accidents or events. While the CRAVS would have remained operable in terms of filtering air in the areas it services, without chilled water providing cooling, operators would have had to bypass the filtered air paths using abnormal operating procedure (AP) guidance in order to maintain area temperatures at values needed to ensure equipment in the areas remained operable. The inspectors determined the finding to be of very low safety significance using the Phase 1 Screening Worksheet of Inspection Manual 0609, Maintenance Risk Assessment and Risk Significance Determination Process, based on the fact that the issue would only become evident if one CRAVS chiller was out-of-service at the time of a SBO event and the time available to restore at least one chiller before the AP would have had to be entered and the filtered air flow paths bypassed. Based on a review of station Probabilistic Risk Assessment data, the likelihood of a SBO event in conjunction with one chiller being inoperable was determined to be extremely low. The finding directly involved the cross-cutting area of Problem Identification and Resolution under the "Thorough Evaluation of Identified Problems" aspect of the "Corrective Action Program" component, in that the licensee failed to take the necessary actions to identify and correct the cause (i.e., high resistance fuse installed in temperature reset circuit) of the "A" CRAVS chiller failing to restart during engineered safety features (ESF) testing to ensure both chillers would function as designed under all postulated transients (P.1.c). This finding was entered into the licensee's corrective action program. (Section 1R19)

Inspection Report# : [2007005](#) (*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 : August 29, 2008