

Harris1

2Q/2007 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Jun 30, 2007

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to correct low refrigerant level in the A essential services chiller.

A self-revealing non-cited violation (NCV) of 10CFR50, Appendix B, Criterion XVI, "Corrective Action" was identified for failure to promptly correct a condition adverse to quality. The licensee failed to correct a low refrigerant level in the A essential services chiller, which led to a low refrigerant pressure trip of the chiller after it was started on April 5, 2007. The low refrigerant condition had been identified by the licensee during multiple surveillance testing opportunities prior to the chiller failure on April 5, 2007, but the licensee assigned a low priority to work activities to correct the condition. Therefore, the condition was not corrected prior to the chiller failure. The licensee entered the failure to take effective corrective actions into their corrective action program (AR 228947).

This finding is greater than minor because it affected the availability and reliability objectives of the Equipment Performance attribute under the Mitigating System Cornerstone. The finding is of very low safety significance because there was no loss of safety function of the essential services chill water system, the A essential services chiller was not inoperable in excess of its allowed technical specifications limiting condition for operation (LCO) time, and the finding is not potentially risk-significant due to external events. The system safety function was preserved by the B train of the essential services chill water system which remained operable during the period of time the A train was inoperable. The cause of the finding is related to the Thorough Evaluation of Identified Problems aspect of the Problem Identification and Resolution cross-cutting area. (Section 1R12)

Inspection Report# : [2007003](#) (*pdf*)

Significance:  Nov 03, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Design Control to Assure UFSAR Requirement to Detect and Isolate an RHR leak of 50 GPM in 30 minutes

The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, for inadequate design control measures to assure the capability to identify and isolate a residual heat removal (RHR) system leak of 50 gpm in 30 minutes as stated in the Updated Final Safety Analysis Report (UFSAR). Specifically, the Reactor Auxiliary Building (RAB) safeguards' sump level instrumentation and area radiation monitors were not capable of assuring detection and control room indication of a 50 gpm RHR leak within 30 minutes of leak initiation.

This finding was more than minor based on its association with the mitigation cornerstone aspect of design control. It impacted the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events in that the purpose of 50 gpm/30 minute criteria was to assure the reliability of the RHR system to accomplish the safety function of long term recirculation cooling. This finding was of very low safety significance (Green) because the RHR leak detection indication available would detect and allow termination of inventory loss prior to significantly impacting the capability of the emergency core cooling system (ECCS) long term recirculation cooling function. The licensee entered this finding in the corrective action program for resolution. (Section 1R21.2.16)

Significance:  Nov 03, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Design Control for RCS Standpipe Low Level Setpoint

The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control for a non-conservative setpoint related to the low Reactor Coolant System (RCS) Standpipe level for mid-loop operations. Specifically, the licensee failed to incorporate instrument uncertainty resulting in an inadequate margin for the onset of vortex conditions to the RHR pumps. The team identified that the alarm setpoint appeared to be inadequate to protect the Residual Heat Removal pumps with respect to air entrainment under vortex conditions.

The finding was more than minor because it affected the design control attribute associated with the mitigating systems cornerstone as related to the availability, reliability, and capability of the RHR system. This finding was of very low safety significance (Green), because it was a design deficiency confirmed not to have resulted in the loss of safety function. This determination was based on the following factors: operators are trained to identify pump cavitation/loss of suction using diverse indications, standpipe levels are closely monitored during mid-loop operations, and low pressure, single stage centrifugal pumps such as the RHR pumps can sustain short periods of air entrainment or cavitation without loss of safety function. The licensee entered this finding into their corrective action program for resolution. (Section 1R21.2.17)

Barrier Integrity

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