

# Harris1

## 3Q/2007 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:**  Sep 30, 2007

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Operator Error During Swapping of Emergency Service Water (ESW) Suctions**

A self-revealing non-cited violation (NCV) was identified for the failure to properly implement operating procedures in accordance with Technical Specifications (TS) 6.8.1. Operator error in procedure implementation led to the A-SA emergency service water (ESW) pump becoming inoperable while swapping the A-SA ESW pump suction from the auxiliary reservoir to the main reservoir.

The finding is greater than minor because it is associated with the configuration control attribute of the Mitigating Systems Cornerstone and affects the cornerstone objective of ensuring availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). The finding was evaluated using MC 0609, Appendix A, significance determination for at-power situations. The finding is considered to have very low safety significance (Green) because loss of the safety function of the A ESW train was not greater than the allowed technical specification outage time. The finding was related to the oversight aspect of the cross-cutting area of human performance because the licensee did not adequately supervise the swapping of the ESW pumps suction source (H.4.c). (Section 40A3)

Inspection Report# : [2007004](#) (*pdf*)

**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*)

**G****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)

Inspection Report# : [2006007](#) (*pdf*)**G****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)

Inspection Report# : [2006007](#) (*pdf*)

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## Barrier Integrity

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## Emergency Preparedness

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## Occupational Radiation Safety

**Significance:** Sep 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to maintain an acceptable program for periodic CCW Process Radiation Monitor calibrations in accordance with 10 CFR 20.1101**

An NRC-identified non-cited violation (NCV) of 10 CFR 20.1101 was identified for failure to maintain an acceptable program for process radiation monitor calibrations in accordance with 10 CFR 20.1501(b). Specifically, the licensee failed to maintain a program for periodic calibrations required to assure acceptable operability for process radiation monitoring equipment REM-01CC-3501ASA and REM-01CC-3501BSB used to monitor the component cooling water (CCW) system for potential contamination.

The issue is greater than minor because the failure to periodically calibrate the CCW process radiation monitors could impair the licensee's ability to accurately identify, trend and take appropriate action regarding any potential inadvertent contamination of a non-radioactive system. This finding is associated with the Occupational Radiation Safety Cornerstone and adversely affects the cornerstone objective attribute to properly maintain and calibrate radiation monitoring instrumentation to support radioactive material control monitoring activities for the potential release of contaminated materials into non-contaminated areas or equipment. This finding was evaluated using the Occupational Radiation Safety Significance Determination Process (SDP) and was determined to be of very low safety significance based on operation of the CCW as a closed system and lack of identified radioactive contamination associated with system operation. The cause of this finding is related to the cross-cutting element of Problem Identification and Resolution (P.1.c). (Section 2OS3).

Inspection Report# : [2007004](#) (*pdf*)

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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

**Significance:** N/A Aug 17, 2007

Identified By: NRC

Item Type: FIN Finding

**Identification and Resolution of Problems**

The inspectors determined that in general, problems were properly identified, evaluated, prioritized, and corrected within the licensee's problem identification and resolution inspection. Evaluation of issues was generally comprehensive and technically adequate. Formal root cause evaluations for issues classified as significant conditions adverse to quality were comprehensive and detailed. Overall, corrective actions developed and implemented for issues were effective in correcting problems. However, the inspectors identified a few examples where corrective actions could have been more thorough.

The processes and procedures of the corrective action program (CAP) were generally adequate; thresholds for identifying issues were appropriately low, and in most cases, corrective actions were adequate to address conditions adverse to quality. Nuclear Assessment Section audits and departmental self-assessments were effective in identifying issues and directing attention to areas needing improvement.

Management emphasized the need for staff to identify and resolve issues using the CAP. Based on discussions and interviews with plant employees from various departments, the inspectors did not identify any reluctance to report safety concerns. A safety conscious work environment was evident.

The inspectors noted two issues involving aspects related to the security program. Specific details are documented in NRC inspection report 05000400/2007404.

Inspection Report# : [2007006](#) (*pdf*)

Last modified : December 07, 2007