

Sequoyah 2

3Q/2007 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2007

Identified By: NRC

Item Type: FIN Finding

Failure to Properly Follow Procedure When Modifying Feedwater Regulating Valves

A Green self-revealing finding was identified for failure to properly follow installation procedures when implementing a modification to the Unit 2 feedwater regulating valves. Inadequate clearance between the air tubing and fixed structures resulted in thermal movement detaching the air tubing from one valve which caused a reactor trip. The licensee entered the problem into their corrective action program, repaired the tubing, and revised conduct of modification procedures to strengthen the process.

The finding was more than minor because it was associated with the design control attribute of the Initiating Events Cornerstone and resulted in an upset in plant stability by causing a reactor trip. While the finding resulted in an actual trip, the finding was determined to be of very low safety significance because it did not contribute to the likelihood of a loss of coolant accident, contribute to a loss of mitigation equipment functions, or increase the likelihood of a fire or flood. The cause of the finding was associated with the human performance and error prevention aspect of the human performance cross-cutting area because the involved craft, craft supervisor, and field engineer failed to verify and validate information by referring to installation procedures for the appropriate clearance.

Inspection Report# : [2007002](#) (*pdf*)

Mitigating Systems

Significance:  Sep 30, 2007

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Follow Procedure when Adjusting EDG Intake Fire Damper

Green. A self-revealing non-cited violation of Technical Specification 6.8.1a was identified for failure to follow procedures when performing maintenance on the intake fire damper for Emergency Diesel Generator 2A. Because of this failure, the damper inadvertently closed and rendered the emergency diesel generator incapable of starting for 2.5 hours. The licensee entered this issue into their Corrective Action Program as Problem Event Report (PER) 129463.

This finding was more than minor because it affected the mitigating systems cornerstone objective of availability by rendering the emergency diesel generator incapable of starting and was associated with the equipment performance attribute. This finding was of very low safety significance because redundant equipment was available to provide the safety function. The finding had a cross-cutting aspect in the area of Human Performance because the cause of the finding was related to the Work Practices aspect of communicating expectations regarding procedural compliance (H.4(b)). (Section 1R12)

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

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Certify Qualifications and Status of Licensed Operators Were Current and Valid

The inspectors identified a Green, non-cited violation (NCV) of 10 CFR 55.53, "Conditions of Licenses" for failure to certify the qualifications and status of licensed operators were current and valid prior to their resumption of license

duties. Specific aspects of the requalification program that were not valid included plant tours that were not completed with another licensed operator and not completing all shift functions in positions to which the individuals will be assigned. The licensee entered the finding into the corrective action program as PER No.112004.

The finding is greater than minor because it is associated with the human performance attribute of the Mitigating Systems Cornerstone that affects the cornerstone objective of ensuring the availability, reliability, and capability of operators to respond to initiating events to prevent undesirable consequences that could pose a potential risk to operations. The finding was evaluated using the Operator Requalification Human Performance Significance Determination Process. Under this SDP, record deficiencies can be either minor or of very low safety significance (Green). This finding was determined to be Green because it was related to the program for maintaining active licenses and more than 20% of the records reviewed had deficiencies.

Inspection Report# : [2006005](#) (*pdf*)

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate 20-foot Separation Zones for Fire Protection in Unit 1 480V Board Room 1B

The inspectors identified a Green non-cited violation of Unit 1 License Condition 16, Fire Protection, and Unit 2 License Condition 13, Fire Protection, for failure to protect certain equipment that was required for safe shutdown from fire damage. The licensee's Safe Shutdown Analysis for a fire in the Unit 1 480V Board Room 1B (Fire Area FAA-095) relied on the fire not damaging at least two of the three Unit 1 battery chargers located in the room plus one of the two Unit 1 inverters and one of the two Unit 2 inverters located in the room. However, the battery chargers and inverters were not separated or protected from fire damage as required by the License Conditions and Fire Protection Program. The licensee entered the issue into the corrective action program.

This finding is of greater than minor safety significance because it affected the objectives of the Mitigating Systems Cornerstone of Reactor Safety. It affected the availability and reliability of systems that mitigate initiating events to prevent undesirable consequences and also involved a lack of required fire barriers or separation for equipment relied upon for safe shutdown following a fire. The finding is of very low safety significance because of the low frequency of fires that could damage two of the three Unit 1 battery chargers, both Unit 1 inverters, or both Unit 2 inverters that were located in the Unit 1 480V Board Room 1B concurrent with a failure of the sprinkler system.

Inspection Report# : [2006005](#) (*pdf*)

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Unprotected Power Cables to Vital Inverters in the Unit 1 480V Board Room 1B

The inspectors identified a Green non-cited violation of Unit 1 License Condition 16, Fire Protection, and Unit 2 License Condition 13, Fire Protection, for failure to protect certain electrical cables for safe shutdown equipment from fire damage. The power cables to Unit 1 vital inverter 1-II and Unit 2 vital inverter 2-II were routed through the north end of the Unit 1 480V Board Room 1B (Fire Area FAA-095) without protection or separation from fire damage as required by the License Conditions and Fire Protection Program. The licensee entered the issue into the corrective action program and revised the fire procedure to add local manual operator actions to mitigate the effects of fire damage to the cables of concern.

This finding is of greater than minor safety significance because it affected the objectives of the Mitigating Systems Cornerstone of Reactor Safety. It affected the availability and reliability of systems that mitigate initiating events to prevent undesirable consequences and also involved a lack of required fire barriers or separation for equipment relied upon for safe shutdown following a fire. The finding is of very low safety significance because of the low frequency of fires that could damage the cables of concern and also damage the redundant safe shutdown equipment.

Inspection Report# : [2006005](#) (*pdf*)

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain Lighting for Time-Critical Local Manual Actions for Post-Fire Safe Shutdown

The inspectors identified a Green non-cited violation of Unit 2 License Condition 13, Fire Protection, for failure to maintain adequate lighting in the Unit 2 main steam valve vault room to support time-critical operator actions required for post-fire safe shutdown. The licensee entered the issue into the corrective action program and replaced the light bulbs to restore the room lighting.

This finding is of greater than minor safety significance because it affected the objectives of the Mitigating Systems Cornerstone of Reactor Safety. It affected the availability and reliability of systems that mitigate initiating events to prevent undesirable consequences. The finding is of very low safety significance because of the low frequency of fires that could lead to core damage if the operator actions in the Unit 2 main steam valve vault room were not performed in a timely manner.

Inspection Report# : [2006005](#) (*pdf*)

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

Significance: N/A Aug 10, 2007

Identified By: NRC

Item Type: FIN Finding

Problem Identification & Resolution

The team determined that the licensee was identifying plant deficiencies at an appropriately low level and effectively entering them into their corrective action program. The team also determined that the licensee was prioritizing and evaluating issues properly. The team identified several isolated examples where corrective actions did not appear appropriate, were not accurately documented, or were not completely carried out. Overall, the team found the effectiveness of corrective actions to be acceptable. The team observed that the quality of Problem Evaluation Report (PER) documentation has improved since the last NRC biennial PI&R inspection, but further improvements could be made. There continue to be multiple extensions for corrective actions with resources identified as the most significant contributing cause. The team concluded, however, that the licensee was generally providing an effective corrective action program.

The inspection team identified that the last NRC Sequoyah PI&R inspection report 50-327,328/2005009, issued 09/09/05 identified lingering technical problems with the Electronic Corrective Action Program (eCAP) electronic document management program. A review of the technical interface between personnel and the eCAP program identified that personnel were comfortable with the software and it's functionality in creating and processing PERs.

On the basis of interviews conducted during this inspection, the inspectors determined that workers at the site felt free to put safety concerns into the corrective action program. The inspectors concluded that the Employee Concerns Resolution program was functioning acceptably but the inspectors observed that there was a work backlog.

Inspection Report# : [2007008](#) (*pdf*)

Last modified : December 07, 2007