

# Sequoyah 2

## 1Q/2009 Plant Inspection Findings

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### Initiating Events

**Significance:** **G** Jan 07, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Pressurizer Pressure Transient due to Inadequate Maintenance Procedure**

Green. A Green self-revealing non-cited violation of Unit 2 Technical Specification 6.8.1 was identified for the licensee's failure to have an adequate procedure to ensure replacement of the pressurizer pressure master controller would not adversely impact plant stability. Specifically, on January 7, 2009, operators placed a pressurizer spray valve controller in automatic while the master controller was in manual with a large demand output signal present. This resulted in the spray valve fully opening and an associated reactor coolant system pressure transient. Operators immediately restored pressure to its normal value, and the finding was entered into the licensee's corrective action program as Problem Evaluation Report (PER) 160504.

The finding was greater than minor because it was associated with the procedure quality attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions. Using Manual Chapter 0609, "Significance Determination Process," Attachment 4, the finding was determined to have very low safety significance (Green) because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating systems will not be available. The cause of this finding was determined to be in the cross-cutting area of human performance associated with work practices and the aspect of human error prevention, in that, during the pre-job brief, the operators discussed minimizing the master controller demand signal but failed to self and peer check to ensure that the procedural steps were consistent with the appropriate actions [H.4(a)] (Section 1R19).

Inspection Report# : [2009002](#) (*pdf*)

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### Mitigating Systems

**Significance:** **SL-IV** Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Notify the Commission Within 30 Days After a Licensed Operator Was Diagnosed With a Permanent Physical Medical Condition**

The NRC identified a non-cited violation (NCV) of 10 CFR 55.25 and § 50.74 for failure to notify the Commission within 30 days after a licensed operator developed a permanent change in his physical condition. The licensee entered this finding into their corrective action program as problem evaluation report 158614.

This finding was evaluated using the traditional enforcement process because the licensee's failure to report the changes in medical condition impacted the Commission's ability to perform its regulatory function associated with operator licensing. Using Supplement I, "Reactor Operations," of the NRC Enforcement Policy, this finding was determined to be a Severity Level IV violation because the change in the operator's physical condition did not impact his ability to perform licensed duties.

The cause of the finding was the licensee failed to understand that all permanent conditions, disabilities, and incapacities must be reported to the NRC for evaluation, regardless of whether the operator had exceeded the specific minimum requirement or the related disqualifying condition threshold in ANSI/ANS-3.4, "Medical Certification and

Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants.”

Inspection Report# : [2008005](#) (pdf)

**G**

**Significance:** Jun 30, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

**Gland Seal Steam Header Isolation Valves Not Scoped In Maintenance Rule**

The inspectors identified a Green, non-cited violation of 10 CFR 50.65(b)(2)(i) for the licensee’s failure to include the gland seal steam supply and supply bypass isolation valves in the scope of their maintenance rule program. These valves are used in the emergency operating procedures to mitigate a steam generator tube rupture if a main steam isolation valve were to fail. The licensee entered the issue into their corrective action program.

The finding was more than minor because it was associated with the mitigating systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter IMC 0609.04, Phase 1 - Initial Screening and Characterization of Findings, the finding was determined to be of very low safety significance (Green) because it did not represent an actual loss of a safety function of one or more non-Technical Specification trains of equipment designated as risk-significant per 10 CFR 50.65.

Inspection Report# : [2008003](#) (pdf)

**G**

**Significance:** Jun 27, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

**Fire Detectors in 480 V Shutdown Board Room 2B2 Not Installed According to NFPA Code**

A Green non-cited violatin of Unit 2 License Condition 13, Fire Protection, was identified since fire detectors in the Unit 2 480 Volt shutdown board room 2B2 were not installed according to the applicable National Fire Protection Association code. Specifically, two detectors were located near forced ventilation fresh air inlets. The licensee entered this issue into their corrective action program and promptly posted a continuous fire watch in the fire area.

This finding is a performance deficiency because the licensee did not properly locate the smoke detector or the heating, ventilating and air conditioning (HVAC) system supply air inlet registers to adequately comply with the applicable industry code of record for the facility. As a result two of the four smoke detectors would not be effective in detecting fires. 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 substantially affects the objective of ensuring reliability and capability of systems that respond to initiating events. Considering the degree of system degradation, the length of time the problem existed, the calculated fire frequency for the fire area and shutdown systems independent of the fire area the finding was of very low safety significance.

Inspection Report# : [2008006](#) (pdf)

**G**

**Significance:** Jun 27, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

**Sprinklers too far below Ceiling in Cable Spreading Room**

A green non-cited violation of Unit 1 License Condition 16 and Unit 2 License Condition 13, Fire Protection, was identified for failure to install the automatic suppression system (sprinkler system) in the cable spreading room according to the applicable

National Fire Protection Association standard with regard to the ceiling to sprinkler head dimension. As a result, the fusible link type sprinkler heads may be significantly slower than originally intended after fire ignition. The licensee entered this problem into their corrective action program.

This finding is a performance deficiency because the licensee did not locate the sprinkler heads according to the applicable industry code of record for the facility. 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. Enclosure fire, and it substantially affects the objective of ensuring reliability and capability of systems that respond to initiating events. The finding was determined to be of very low safety significance when the likelihood of fires, the transients that could be initiated by fires and the probability of failure of mitigating systems for those transients were evaluated.

Inspection Report# : [2008006](#) (*pdf*)

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## Barrier Integrity

**Significance:**  Dec 14, 2007

Identified By: NRC

Item Type: FIN Finding

### **Procedure 0-MA-REM-000-001.0, Extended Station Blackout, Did Not Close Hydrogen Igniter Breakers**

Green. An NRC inspector identified a Green finding for the licensee's failure to implement a docketed commitment made to the NRC. Specifically, the licensee did not adequately revise procedures in accordance with a self-imposed standard to provide backup power to at least one train of hydrogen igniters in response to Generic Safety Issue – 189 “Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident.” The revised procedures failed to close the supply breaker to the hydrogen igniter. The licensee entered this issue into their corrective action program as Problem Evaluation Report 144301.

The finding is more than minor because it is associated with the Procedure Quality attribute of the Reactor Safety/Barrier Integrity Cornerstone. The inadequate procedure affects the cornerstone objective to provide reasonable assurance that physical design barriers, specifically maintaining the functionality of containment, protect the public from radio nuclide releases caused by accidents or events. For this finding, the accident sequences are associated with station blackouts. A Phase 3 Significance Determination Process evaluation was required to ascertain the safety significance. A regional senior reactor analyst performed a Phase 3 evaluation and determined that this performance deficiency was of very low safety significance (Green) (Section 40A5.5).

Inspection Report# : [2009002](#) (*pdf*)

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## Emergency Preparedness

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## Occupational Radiation Safety

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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

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