

# Sequoyah 1

## 3Q/2004 Plant Inspection Findings

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### Initiating Events

**G****Significance:** Jun 26, 2004

Identified By: Self Disclosing

Item Type: FIN Finding

**Electrical Ground on Improperly Abandoned Cable Resulted in Reactor Trip**

A self-revealing finding was identified for an improperly abandoned cable in the non-safety related 250-VDC Battery Board 2 system that resulted in a reactor trip of Unit 1. A Design Change Notice (DCN) in 1999 required the cable to be disconnected and insulated on both ends; however, the work was done only on one end. The cable subsequently grounded and, in conjunction with a second ground, actuated a protective relay on the main bank transformer and tripped the unit.

This finding is more than minor because it affected the design control attribute of the initiating event cornerstone and resulted in an upset in plant stability. This finding is of very low safety significance because no mitigating system was affected

Inspection Report# : [2004003\(pdf\)](#)**G****Significance:** Dec 27, 2003

Identified By: Self Disclosing

Item Type: FIN Finding

**Failure to Maintain Configuration Control of Turbine Oil Valves Resulted in Reactor Trip**

The inspectors identified a finding for a self-revealing failure to follow the plant configuration control process on non-safety related equipment. An instrument isolation valve on the Unit 1 turbine front standard was inappropriately left closed following a refueling outage and resulted in a generator load rejection and reactor trip.

This finding is more than minor because it affected the configuration control attribute of the initiating event cornerstone and challenged the ability of operators and the reactor protection system to safely shut down the plant. With the isolation valve to Pressure Switch 1-PS-47-76 inappropriately closed, a generator load rejection and subsequent reactor trip were assured when the turbine thrust bearing trip test was performed. This finding is of very low safety significance because no mitigating system was affected. The cause of the finding is related to the cross-cutting element of human performance.

Inspection Report# : [2003006\(pdf\)](#)**G****Significance:** Dec 27, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Comply with Configuration Control Procedures**

The inspectors identified a non-cited violation of Technical Specification (TS) 6.8.1 for failure to comply with plant configuration control procedures. Both pressurizer power-operated-relief-valve block valves on both units were simultaneously closed without the use of an approved work document, resulting in a missed risk assessment.

This finding is more than minor because it affected the configuration control attribute of the Initiating Events cornerstone. Alteration of safety related equipment configuration outside of approved processes would, if left uncorrected, result in a more significant safety concern. While not prohibited by TS, this action removed an over-pressure reactor trip barrier and would challenge the pressurizer safety valves in response to an over-pressure transient. This finding is of very low safety significance because closure of the block valves only affected the initiating event cornerstone and did not directly contribute to the likelihood of a primary system event initiator.

Inspection Report# : [2003006\(pdf\)](#)

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### Mitigating Systems

**G****Significance:** Sep 25, 2004

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

**Operator Inattentiveness Resulted in an 800-Gallon Loss of RCS Inventory over a Two-Hour Period**

The inspectors identified a non-cited violation of Technical Specification 6.8.1 for a self-revealing failure to comply with procedures for monitoring the plant. Operators failed to adequately monitor appropriate parameters and respond to reactor coolant system leakage greater than technical specification limits for a two-hour period which included another activity affecting reactor coolant system inventory. This resulted in a loss of 800 gallons of reactor coolant system inventory over the two-hour period.

This finding is more than minor because it was a post-event human error. This finding is of very low safety significance because once identified, the leak was readily isolated and no loss of safety function occurred. The cause of the finding is related to the cross-cutting element of human performance.

Inspection Report# : [2004004\(pdf\)](#)

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**Significance:** Jun 26, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Comply with Configuration Control Procedures**

The inspectors identified a non-cited violation of Technical Specification (TS) 6.8.1 for a self-revealing failure to comply with status control procedures. While attempting to get information to set a limit switch on Electric Board Room Chiller A, maintenance personnel removed the slide valve position indicator cover on Electric Board Room Chiller B. When replacing it, the cover contacted the control power circuits and caused a short circuit that tripped the B Chiller. In removing the cover, maintenance personnel had not obtained prior approval from operations, nor did they have work documents that authorized the actions.

This finding is more than minor because it affected the availability of both electric board room chillers, a mitigating system. Alteration of safety-related equipment configuration outside of approved processes would, if left uncorrected, result in a more significant safety concern. A protected train that is lost due to configuration control errors has an increased chance that it will not restart.

This finding is of very low safety significance because there was no loss of safety function, no loss of TS equipment for more than the allowed outage time, no loss of maintenance rule (MR) risk-significant system for more than 24 hours, and no increase in risk from external events. The cause of this finding is related to the cross-cutting area of human performance.

Inspection Report# : [2004003\(pdf\)](#)

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**Significance:** Mar 27, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inappropriate Change to the Approved Fire Protection Program**

A non-cited Severity Level IV violation of 10 CFR 50.48(a) and the Unit 1 and 2 Operating License Conditions was identified for the licensee making an inappropriate change to the approved fire protection program. This change removed the requirement to implement fire watches for impaired fire protection systems and features.

This finding is more than minor because the lack of a posted fire watch could adversely affect the ability to achieve and maintain safe shutdown in the event of a severe fire in the affected area. This was based on recognition that the ability of the fire watch was not limited to fire identification, but also included mitigating actions taken in the event of fires, such as the ability to close doors limiting fire exposure to adjacent areas and providing more timely fire detection capability in certain cases. This finding is of very low safety significance because, based on an assessment of the impacts of the identified fire protection features removed from service, the licensee's overall safe shutdown capabilities and related fire protection features remained adequate to achieve and maintain safe shutdown conditions. Therefore, this finding is characterized as Green. (Section 4OA5).

Inspection Report# : [2004002\(pdf\)](#)

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**Significance:** Dec 27, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

#### **Failure to Maintain Qualification Records for Licensed Operator Reactivation**

The inspectors identified a non-cited violation (NCV) for failure to certify qualifications and status of licensed operators were current and valid and that the requirements of 10 CFR 55.53, "Conditions of Licenses" for license reactivation were met prior to their resumption of license duties. Only four out of the thirteen selected operator reactivation records were available for inspection.

The finding is greater than minor because it is associated with the Mitigating Systems Cornerstone human performance attribute that affects 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 SDP and was determined to be a finding of very low safety significance because there was no evidence of an inactive operator standing a watch. Since more than 20% of the reactivation records had deficiencies in that they were not available and could not be verified to meet reactivation requirements, the issue was determined to be a green finding.

Inspection Report# : [2003006\(pdf\)](#)

**G****Significance:** Dec 27, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Manage the Risk from Proposed Maintenance Activities**

The inspectors identified a non-cited violation of 10 CFR, Part 50.65, Paragraph (a)(4), for the failure to properly manage risk when removing the Unit 1 B-Train components from service for a component cooling and essential raw cooling water header outage. Centrifugal Charging Pump 1B was inadvertently tagged out and made unavailable when it was not part of the scheduled maintenance plan. This put Unit 1 in a configuration different from that evaluated in the risk assessment and resulted in a situation not allowed by licensee site risk procedures.

This finding is more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the availability of the charging pumps. It resulted in an unplanned 8.5 hour unavailability of the pump and an unplanned, unrecognized increase in risk. This finding is of very low safety significance because it did not represent an actual loss of safety function of a system nor did it represent an actual loss of safety function of a single train for greater than its technical specification-allowed outage time.

Inspection Report# : [2003006\(pdf\)](#)

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## Barrier Integrity

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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

[Physical Protection](#) information not publicly available.

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## Miscellaneous

**Significance:** SL-II Jun 30, 2001

Identified By: NRC

Item Type: VIO Violation

**EMPLOYEE PROTECTED ACTIVITY**

On February 7, 2000, a Severity Level II violation with civil penalty was issued to the licensee. The violation was not site-specific and involved employment discrimination contrary to the requirements of 10 CFR 50.7, "Employee Protection," in that the licensee did not select a former employee to a competitive position in the corporate chemistry organization in 1996, due, at least in part, to his engagement in protected activities. On January 22, 2001, the licensee denied the violation and on May 4, an Order was issued sustaining the violation and imposing the civil penalty. On June 1, TVA requested an enforcement hearing on the Order.

Inspection Report# : [2001002\(pdf\)](#)

Last modified : December 29, 2004