

Sequoyah 1

1Q/2016 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Inadequate Application of Flame Retardant on Cable Room Penetrations

The NRC identified a non-cited violation (NCV) of Unit 1 and 2 Technical Specification 5.4.1 for the licensee's failure to adequately implement fire protection procedures. Specifically, the inspectors identified several cables located within a cable tray that penetrated the floor of the cable spreading room that were not adequately coating with fire retardant material as required by plant procedures. The licensee placed the issue into the corrective action program (CAP) and implemented a fire watch for the degraded condition.

The inspectors determined that the failure to adequately implement all requirements of the licensee's fire protection program procedures was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the protection against external events (fire) attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the finding was of very low safety significance (Green) because of the fire protection defense in depth concept provided other barriers to prevent the spread of fires. The cause of this finding was related to the procedural adherence component of the human performance area, because the licensee failed to properly install cable bundles through wall penetrations. [H.8]

Inspection Report# : [2016001](#) (*pdf*)

Significance:  Mar 31, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Inadvertent Safety Injection Due to Inadequate Main Steam Procedure

A self-revealing NCV of Units 1 & 2 Technical Specification, 5.4.1 was documented for the licensee's failure to implement an adequate procedure associate with the startup of the main steam system. Specifically, the licensee caused an inadvertent safety injection which unnecessarily challenged the operators due to an inadequate draining of the main steam header during system start up. The licensee placed the issue into the CAP.

The failure of the licensee to adequately drain condensate from the main steam header resulted in an inadvertent safety injection (SI) and was a performance efficiency. The finding was determined to be greater than minor because it adversely effected the Procedure Quality attribute of the Initiating Events Cornerstone to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The significance of this finding was evaluated in accordance with the Manual Chapter 0609 Appendix A, "The Significance Determination Process for Findings At-Power." Although the unit was in Mode 3 at the time, this appendix was chosen because the plant did not meet the entry conditions for residual heat removal system operation. The inspectors concluded that the finding was of very low safety significance (Green) because no significant initiating event prompted this transient. The finding was determined to have a cross-cutting aspect in the operating experience

component of the problem identification and resolution area, because the licensee failed to evaluate and implement relevant internal and external operating experience. [P.5]

Inspection Report# : [2016001](#) (pdf)

Mitigating Systems

Significance:  Sep 19, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Inadequate Clearance Causes damage to ‘A’ train Solid State Protection System

A self-revealing Green NCV of Unit 1 Technical Specification (TS) 6.8.1.a was identified for the licensee’s failure to adequately establish a clearance boundary during plant maintenance. Specifically, the licensee caused damage to a safetyrelated component during maintenance as a result of a failure to de-energize all electrical sources during maintenance troubleshooting activities. The licensee placed the issue into their corrective action program (CAP) and corrected the identified deficiencies.

The inspectors determined that the failure to adequately implement clearance procedures was a performance deficiency. The inspectors determined that the performance deficiency was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the finding was of very low safety significance (Green) as the affected safety significant component was repaired within 24 hours. The cause of this finding was related to the cross-cutting aspect of leaders ensuring that personnel, equipment, procedures, and other resources were available and adequate to support nuclear safety [H.1]

Inspection Report# : [2015003](#) (pdf)

Significance:  Jul 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to maintain control of and update safety related design out documents (electrical calculations)

The inspectors identified a Green non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, Design Control, for the licensee’s failure to control safety related calculations that reviewed equipment essential to the function of Class 1E electrical systems. The issue was entered into the licensee’s corrective action program as CRs 1059281 and 1064042. Planned corrective actions were to revise the calculations.

The inspectors determined that the performance deficiency was determined to be more than minor because it was associated with the Design Control attribute of the Mitigating Systems Cornerstone. The failure to plan and control updates to safety related calculations to review the suitability of new molded case circuit breakers in Class 1E electrical systems adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of the systems that respond to initiating events to prevent undesirable consequences. The finding was determined to have a cross-cutting aspect in the resolution area of Problem Identification and Resolution [P.3], because the licensee failed to take effective corrective actions to address issues in a timely manner commensurate with their safety significance.

Inspection Report# : [2015007](#) (pdf)

Significance:  Jul 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to request a licensee amendment prior to removing interlocks from shared onsite emergency and shutdown AC electric systems

The inspectors identified a SLIV violation of 10CFR 50.59.c.(2).ii, “Changes, tests and experiments,” for the licensee’s failure to obtain a license amendment prior to implementing a change to the onsite emergency and shutdown AC electric systems supplying the shared Essential Raw Cooling Water (ERCW) systems. The change removed the kirk key interlocking system from the tie breakers that originally prevented an operator error that would parallel the Unit 1A and Unit 2A 480V AC motor control centers (MCCs). The issue was entered into the licensee’s corrective action program as CR 1076179. The licensee has administrative controls in place to limit the risk of this configuration pending determination of corrective actions.

The inspectors determined that the performance deficiency was more than minor because there was a reasonable likelihood that the change required Commission review and approval prior to implementation and the failure to request approval impacted the regulatory process. Specifically, the departure from acceptance criteria identified in IEEE 308, RG1.81, and RG 1.6 more than minimally increased the likelihood of occurrence of an ERCW power train malfunction.

Inspection Report# : [2015007](#) (*pdf*)

Significance:  Jul 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to identify and correct inadequate procurement evaluation processes

The inspectors identified three examples of a Green non-cited (NCV) of 10 CFR 50 Appendix B, Criterion XVI, “Corrective Action, for the licensee’s failure to identify and correct a conditions adverse to quality that were associated with processes for evaluating Class 1E critical characteristics for molded case circuit breakers. The issue was entered into the licensee’s corrective action program as CRs 1064483, 1064744, 1064479, 1059273 and 1064731. Planned corrective actions were to update procedures to document critical thinking in evaluating CRs and include additional critical characteristics.

The inspectors determined that the performance deficiency was more than minor because it was associated with the Equipment Performance attribute of the Mitigating Systems Cornerstone and the failure to identify and correct nonconformances in Class 1E equipment and the failure to resolve adverse conditions with evaluating Class 1E critical characteristics adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to have a cross-cutting aspect in the change management area of Human Performance [H.3] because Leaders failed to use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority.

Inspection Report# : [2015007](#) (*pdf*)

Significance:  Jul 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Identify Qualification Criteria Associated with Class 1E Electrical Component Static Performance Characteristics

The inspectors identified a Green non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for the licensee’s failure to verify the adequacy of defined shelf life and design life characteristics of Class

1E electrical equipment. The issue was entered into the licensee's corrective action program as CR 1064785.

The inspectors determined that the performance deficiency was more than minor because it was associated with the Design Control attribute of the Mitigating Systems Cornerstone and the failure to ensure the Class 1E static and dynamic performance characteristics were identified and evaluated adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of the SSCs that responds to initiating events to prevent undesirable consequences. The finding was determined to have a cross-cutting aspect in the change management area of Human Performance [H.3] because Leaders failed to use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority.

Inspection Report# : [2015007](#) (*pdf*)

Barrier Integrity

Significance:  Oct 01, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Implement Work Risk Activity and Oversight of Supplemental Personnel Procedures

A self-revealing Green NCV of TS 6.8.1.a, "Administrative Controls of Procedures and Programs," was identified for the licensee's failure to implement procedures related to quality during the surveillance capsule relocation activity. Specifically, procedures NPG-SPP-07.3, "Work Activity Risk Management," and NPG-SPP.07.7, "NPG TCM Role and Oversight of Supplemental Personnel," were not appropriately implemented. The deficiency was entered into the licensee's CAP as Problem Evaluation Report (PER) 1016839.

This finding was determined to be greater than minor because it was associated with the Human Performance attribute of the Barrier Integrity Cornerstone, and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the performance deficiency resulted in the failure to properly secure reactor vessel surveillance capsules and the subsequent damage to the reactor vessel pressure boundary, reactor internals and fuel filter screens. The proper higher risk categorization would have led to enhanced contractor oversight, and the ability to detect when the contractors were performing actions outside the approved procedure. These additional oversights would reasonably be expected to prevent the events that led to the surveillance capsule ejections, and eliminate any potential to cause damage to the reactor vessel pressure boundary, reactor internals, and fuel filter screens. The inspectors identified a cross-cutting aspect in the Human Performance Consistent Process cross-cutting area. Specifically, the licensee failed to consistently incorporate risk insights, as required by procedure NPG-SPP-07.3, which resulted in less than conservative classification for an infrequently performed activity inside the reactor vessel performed by contract personnel. [H.13]

Inspection Report# : [2015003](#) (*pdf*)

Emergency Preparedness

Significance:  Dec 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Recognize and Submit for Approval a Reduction in Effectiveness of the Emergency Plan

The inspectors identified a Severity Level IV NCV of Title 10 of the Code of Federal Regulations, Part 50.54(q), for changes to the licensee's radiological emergency plan, effective December 18, 2014, that reduced the effectiveness of the plan and therefore, should have received NRC approval prior to making the change. Specifically, the effectiveness of TVA's Radiological Emergency Plan (Generic Part), Revision 104, was reduced by the inadvertent removal of the offsite telephone communications description for the Health Physics Network and Emergency Notification System communication tools, as well as the monthly testing of those devices. The licensee's failure to recognize that Revision 104 reduced the effectiveness of the emergency plan was a performance deficiency. The licensee entered this issue into their corrective action program (CAP) as Condition Report (CR) 1093684.

A licensee making changes to its emergency plan that reduces the effectiveness of the plan without prior NRC approval is considered a performance deficiency within the licensee's ability to foresee and correct. This finding is more than minor because it brings into question the thoroughness of the licensee's review process when making changes to the emergency plan and adversely affects the procedure quality attribute of the emergency preparedness cornerstone objective. This finding is a violation of NRC requirements and because it has the potential for impacting the NRC's ability to perform its regulatory function, traditional enforcement is applicable in accordance with IMC 0612, Appendix B. This finding is determined to be a Severity Level IV violation in accordance with Section 6.6.d.1 of the Enforcement Policy because it involves the licensee's ability to meet or implement a regulatory requirement not related to assessment or notification such that the effectiveness of the emergency plan is reduced.

Inspection Report# : [2015004](#) (*pdf*)

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Last modified : July 11, 2016