Sequoyah 1

Initiating Events

Significance: W Jul 17, 1999
Identified By: NRC
Item Type: FIN Finding
TURBINE BUILDING RAILROAD BAY FLOOD EVENT
Water from a June 30, 1999 heavy rainfall entered the turbine building railroad bay near the 6.9kv unit switchboards, and created the increased potential for a loss of offsite power. This issue was discussed in Inspection Reports 50-327, 328/99-04 and 50-327, 328/99-05. The licensee was informed in a letter, dated January 26, 2000, that several issues contributed significantly to the flooding event which included: (1) Improper correction of identified non-safety-related deficiencies, following a July 1994 rain storm, and (2) A deficient non-safety-related temporary modification to the storm drain system. The flooding event itself, the corrective action deficiencies and the deficient temporary design change were evaluated in Phase 3 of the NRC Significance Determination Process as a single finding that represented some increased risk to safety which required additional NRC inspection. This finding had increased risk significance due to the increased potential for a loss of offsite power. [A supplemental inspection (Inspection Report 50-327/00-04, 50-328/00-04) completed on April 7, 2000 determined that the root cause analysis of the flooding event focused on a temporary modification which routed the discharge from the bus duct coolers into the storm drainage system adjacent to the turbine building railroad bay door. Although the licensees' root cause analysis did not address an inconsistency between the existing storm drainage system and the original design standards, the installation of curbs around the 6.9 kV electrical cabinets provided increased assurance that plant equipment will be protected from future flooding events and thus reduced the risk of a loss of offsite power from a recurrence of flooding within the turbine building railroad bay. This finding is no longer outside of the licensee response band, and no further inspection is planned.]
Inspection Report# : 1999004*(pdf)*

Significance: G Jul 17, 1999
Identified By: NRC
Item Type: VIO Violation
FAILURE TO SCOPE STORM DRAIN SYS INTO THE MAINT RULE
A violation of 10 CFR 50.65 was identified for failure to scope the storm drain system into the licensee's Maintenance Rule Program. An NRC review of a June 30, 1999, flooding event identified that the storm drain system had not been incorporated into the Maintenance Rule program. This issue was discussed in NRC Inspection Reports 50-327/99-04, 50-328/99-04. Based on a previous flooding event on July 11, 1994, the storm drain system had the potential to cause a reactor trip or actuation of a safety-related system. Therefore, the storm drain system should have been included within the scope of the Maintenance Rule in 1996. Subsequently, the NRC issued a Notice of Violation for this issue by letter dated January 26, 2000. The violation was cited because compliance was not restored, by scoping the storm drain system into the Maintenance Rule, within a reasonable time after identification of the violation. The finding had low risk significance because, by itself, it contributed minimally to the June 30, 1999, flooding event.
Inspection Report# : 1999004*(pdf)*
Inspection Report# : 2000001*(pdf)*

Mitigating Systems

Significance: G Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
FAILURE TO PREVENT RECURRENCE OF EXCESSIVE GAS ACCUMULATION IN THE RHR SYSTEM (SECTION 40A7).
A non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, which requires, in part, that, in the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition. Corrective actions for the gas accumulation contribution to a Unit 1 1995 RHR system water hammer event, failed to preclude repetition of RHR gas accumulation contributing to a subsequent event. On September 26, 2000, insufficient venting of non-condensable gases from the RHR system contributed to an inadvertent relief valve lift, rendering the RHR system and associated emergency core cooling system subsystems inoperable for approximately six hours. This licnesee identified finding was determined to be of very low safety significants.
Inspection Report# : 2000008*(pdf)*

Significance: G Dec 30, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
FAILURE TO IDENTIFY AND CORRECT PROCEDURE DEFICIENCIES USED TO VENT RHR DISCHARGE PIPING.
A non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected was identified. An inadequacy of Procedure 1-SI-OPS-074-128.0, Unit 1 RHR Discharge Piping Vent, a condition adverse to quality, was not identified and corrected by a procedure revision made in response to an October 1998 reactor collanr system event. This procedural inadequacy was revealed during a similar event on March 13, 2000. This licensee identified finding was determined to be of very low safety significance.
Inspection Report# : 2000007*(pdf)*

Significance: G Sep 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO PROMPTLY IDENTIFY AND SUBSEQUENTLY CORRECT VALVE SEAT LEAKAGE
The inspectors identified a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, for failure to promptly identify a degraded condition related to seat leakage of the Unit 1 residual heat removal (RHR) heat exchanger-to-RWST bypass valve. This identification failure resulted in the valve condition not being corrected for over three years. The degraded condition, and thus the corrective action finding, was of greater than minor significance because the condition had a credible impact on safety due to increased operator burden and its effects on a mitigating system (e.g., RHR, RCS level instruments) availability/reliability. The degraded condition was of very low safety significance because sufficient defense-in-depth existed to mitigate the condition primarily during reactor coolant system water level monitoring during mid-loop operation.
Inspection Report# : 2001003*(pdf)*

Significance: G Sep 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY MAINTAIN ABNORMAL OPERATING PROCEDURE FOR RCP MALFUNCTIONS
The inspectors identified a non-cited violation of Technical Specification 6.8.1.a, for an inadequate abnormal operating procedure (AOP), used to respond to reactor coolant pump (RCP) malfunctions. The AOP had been revised, inappropriately reducing a minimum RCP seal water leakoff low flow requirement for one of the four Unit 1 RCPs. The procedure deficiency had a credible impact on safety because it would have allowed operation of the affected RCP in a condition that could have resulted in damage to the RCP seal and potentially resulting in a small break loss of coolant accident (LOCA). The licensee's risk analysis identified that small break LOCAs are significant contributors to the plant's core damage frequency. Because the affected RCP did not operate below the correct minimum flow, the finding was of very low safety significance.
Inspection Report# : 2001003*(pdf)*

Significance: G Apr 01, 2000
Identified By: NRC
Item Type: FIN Finding
Unit 1 Reactor Trip While Increasing Power Following Refueling Outage
Unit 1 experienced an automatic turbine trip and subsequent reactor trip while returning to full power following the Unit 1 Cycle 10 refueling outage. The reactor trip was caused by an erroneous "main generator loss-of-excitation field" protective signal. The erroneous protective signal was the result of errors in a design change specifications package which caused the protective circuitry to be incorrectly wired and tested. The finding represented a low risk significance because, although the design change errors contributed to the likelihood of a reactor trip, they did not affect the availability of any mitigating systems.
Inspection Report# : 2000002*(pdf)*

Significance: G Apr 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO CORRECT IDENTIFIED DEFICIENIES IN ADMIN CONTROLS FOR THE HANDLING & STORAGE OF BULK LUBRICANTS CONTRIBUTING TO THE INSTALLATION OF WRONG LUBRICANTS INTO ECCS & OTHER SAFETY-RELATED SYSTEMS.
A non-cited violation of 10 CFR 50, Criterion XVI, with three examples, was identified for failure to correct problems identified in 1995, 1996, and 1998 with administrative controls for the handling and storage of bulk lubricants. The failure contributed to the 1998 and 1999 installation of a lubricant not meeting vendor and equipment qualification binder requirements into emergency core cooling system and other safety-related components. Multiple and diverse safety-related systems were impacted over a period exceeding one year. The finding had low risk significance

because it did not result in an actual loss of safety function in the systems identified.
Inspection Report# : 2000002*(pdf)*

Significance: G Apr 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO PERFORM RESPONSE TIME TEST FOR RWST LEVEL TRANSMITTER 1-LT-63-53.
A non-cited violation of Technical Specification 4.3.2.1.3 was identified for failure to perform the required response time test for refueling water storage tank (RWST) level transmitter 1-LT-63-53. The instrument was subsequently tested with satisfactory results. [Three additional examples were identified in Inspection Report 50-327, 328/00-06 for failure to conduct response time testing, following maintenance, of three flow control valves.] The finding represented low risk significance because the function of the transmitter to swap emergency cooling water systems pump suction to the containment sump on low RWST level was not impacted. [The additional examples had a very low safety significance because there was not an actual loss of safety function of any of the systems involved]
Inspection Report# : 2000002*(pdf)*

Significance: G Nov 20, 1999
Identified By: NRC
Item Type: FIN Finding
UNIT 1 TDAFW PUMP WAS SHUTDOWN WHEN OIL IN BEARING SIGHT GLASS WAS NOTED TO BE EMPTY
During a performance test of the Unit 1 TDAFW pump, the outboard bearing oil sight glass completely drained into the pump bearing oil reservoir. Operations stopped the pump when the sight glass was observed to be empty. A determination was made that the licensee was following the vendor's recommendation for pump oil changes. However, the inspectors questioned the licensee's practice of not running the pump immediately following an oil change to verify oil level. This practice caused the operators to question the adequacy of bearing oil level and the subsequent unnecessary stop and restart of a risk significant system. The decrease in TDAFW pump bearing oil level following an oil change does not result in the loss of a safety function of the pump
Inspection Report# : 1999007*(pdf)*

Significance: G Nov 20, 1999
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
PRE-PLANNING NOT ADEQUATE DURING REPLACEMENT OF PROTECTION SYSTEM POWER SUPPLY
A violation of Technical Specification 6.8.1.a was identified for failure to properly plan maintenance activities and perform the work order for a Unit 1 protective system power supply replacement which resulted in an unanticipated steam generator (SG) level transient of about 16 percent in all four SGs. Operators initiated manual actions in sufficient time to restore SG levels to normal prior to reaching the SG low-low level reactor trip setpoint. This event would not have increased the likelihood of an uncomplicated reactor trip.
Inspection Report# : 1999007*(pdf)*

Significance: G Jul 17, 1999
Identified By: Licensee
Item Type: FIN Finding
TURBINE DRIVEN AUXILIARY FEEDWATER PUMP MAINTENANCE RULE MISINTERPRETATION.
An additional example of a previous Maintenance Rule violation was identified. On January 20, 1999, the dropping resistor on Unit 1 turbine driven auxiliary feedwater pump (TDAFW) failed for the second time. The licensee, through a misinterpretation of Maintenance Rule unreliability criteria, did not consider this failure to be a functional failure and therefore did not consider classification of the system as (a)(1) under the Maintenance Rule. Following a third failure in May 1999 the TDAFW was classified (a)(1). The issue of proper classification of functional failures and (a)(1) classification of the TDAFW pump under the Maintenance Rule did not affect the operability of the auxiliary feedwater system.
Inspection Report# : 1999004*(pdf)*

Barrier Integrity

Significance: G Mar 31, 2001
Identified By: NRC

Item Type: NCV NonCited Violation
FAILURE TO MEET LICENSE CONDITION FOR STEAM GENERATOR TUBE INSPECTION PROGRAM
A non-cited violation of Unit 1 License Condition 2.C.(9)(d) was identified, related to steam generator tube eddy current testing. During a Unit 1 March 2000 refueling outage, dented intersections for the steam generator tubes in the less than two volt category were not inspected in accordance with the requirements of the license condition. This finding was of very low safety significance because only the barrier integrity cornerstone was affected and there was no impact other than slightly increasing the likelihood of a steam generator tube failure.
Inspection Report# : 2000008*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ESTABLISH ADEQUATE MITIGATION FOR A LOCA OUTSIDE CONTAINMENT
A non-cited violation of Technical Specification 6.8.1.a was identified for a deficient emergency operating procedure used for mitigation of loss of coolant accidents (LOCAs) outside containment. The procedure, ECA-1.2, "LOCA Outside Containment," was deficient because it provided inappropriate guidance involving reactor coolant system pressure trending for determination of LOCA isolation. In addition, the guidance differed from the Westinghouse Owners Group guidance without formal documented justification. The procedure deficiency, which was revealed during a licensed operator requalification simulator training exercise, could lead to untimely isolation of a LOCA and termination of a containment bypass condition for an actual plant event. This deficiency had very low safety significance because of the low initiating event frequency of the LOCA that could cause the event and other operator actions which could effectively mitigate the event thus further reducing the risk of core damage.
Inspection Report# : 2000005*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO OBTAIN SHIFT MANAGER CONCURRENCE WHEN BREACHING A CONTROL ROOM ENVELOPE DOOR
The inspectors identified a non-cited violation of Technical Specification 6.8.1.a, Procedures and Programs, for failure to follow work instructions to obtain shift manager concurrence when breaching a control room envelope door. This finding had a credible impact on safety and could have affected the integrity of the control room envelope because the control room staff was unaware of the door being open and would not have known to contact the involved worker had a control room envelope isolation signal occurred. Therefore, the control room envelope would not have pressurized as required. The finding was of very low safety significance because the finding only represented a degradation of the radiological barrier function provided for the control room.
Inspection Report# : 2001004*(pdf)*

Emergency Preparedness

Significance: G Jul 17, 1999
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO MEET 10 CFR 50.54(q) CHANGE REQMNTS DECREASING EMERG.PLAN EFFECTIVENESS
A violation of 10 CFR 50.54(q) was identified in that the licensee implemented an emergency action level (EAL) change that decreased the effectiveness of the Emergency Plan without application to and approval by the Commission. The change involved the Alert EALs for Event 2.1, Loss of Instrumentation, which added the following three new peripheral indicators to Condition 1: (1) ICS MCR operator display station, (2) ADDS terminal, and (3) Annunciator operator display station. Had an event occurred during which this EAL would have been called upon, the EAL may not have required a declaration of an Alert even when a significant transient was in progress with loss of most or all annunciators associated with safety systems for greater than 15 minutes. However, the improper change involved only 1 of approximately 35 EALs.
Inspection Report# : 1999004*(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Significance: G Dec 30, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
FAILURE TO STORE UNATTENDED SAFEGUARDS INFORMATION IN A LOCKED SECURITY STORAGE CONTAINER.
A non-cited violation of 10 CFR 73.21(d), which requires unattended safeguards information to be stored in a locked security storage container was identified. TVAN Standard Programs and Processes, SPP -1.4, Appendix E, requires Safeguards Information when not in use to be stored in an approved locked storage container. On October 18, 2000, during a licensee quality assurance audit the auditors concluded that information that should have been classified as safeguards information was left unattended and not stored in an approved safeguards container. This licensee identified finding was determined to be of of very low safety significance.
Inspection Report# : 2000007*(pdf)*

Significance: TBD Sep 30, 2000
Identified By: Licensee
Item Type: AV Apparent Violation
FAILURE TO SEARCH AN INDIVIDUAL PRIOR TO GRANTING ACCESS TO THE PROTECTED AREA
An apparent violation of the Physical Security Plan/Contingency Plan was identified for the licensee allowing a TVA employee to enter the site without removing his shoes after the first alarm was received on the access portal metal detector.
Inspection Report# : 2000006*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ENSURE POSTED SECURITY FORCE PERSONNEL HAVE NO WEAKNESSES OR ABNORMALITIES WHICH WOULD AFFECT THEIR DUTIES
A non-cited violation of the Security Training and Qualification Plan was identified for failure to ensure that posted security force personnel have no weaknesses or abnormalities that would adversely affect their performance of assigned duties. The finding had very low safety significance due to the non-predictable basis of single security equipment failures and because there was no evidence that the vulnerability had been exploited.
Inspection Report# : 2000006*(pdf)*

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)*

Significance: N/A Dec 15, 2000
Identified By: NRC
Item Type: FIN Finding
IDENTIFICATION AND RESOLUTION OF PROBLEMS
The licensee was effective at identifying problems and entering them into the corrective action program. A management review committee (MRC) reviewed all problem evaluation reports (PERs) and all root cause analyses, when required by the classification level of the PER, or when requested by the MRC. Corrective actions for significant problems were effective. Management attention was appropriately being applied to areas where corrective action had not been effective. Some examples were identified for failing to enter issues into the corrective action program and therefore did not receive thorough investigation and development of corrective actions. These involved issues that were of very low safety significance. Corrective actions for significant problems were effective. Licensee audits and assessments have adequately identified deficiencies in the corrective action program and audit findings were consistent with the NRC's observations. Licensee's employees had no reservations about

identifying and reporting nuclear safety issues.
Inspection Report# : 2000011*(pdf)*

Significance: N/A Dec 14, 2001
Identified By: NRC
Item Type: FIN Finding
IDENTIFICATION AND RESOLUTION OF PROBLEMS
The inspectors determined that the licensee identified, evaluated, prioritized, and corrected problems in a timely and effective manner, consistent with risk and safety significance. Corrective actions were generally implemented in a timely manner, and were appropriate to prevent recurrence. Senior management involvement in the problem identification and resolution program was evident in the daily management review committee meeting, where all problem identification reports were reviewed. Licensee audits and assessments critically assessed the licensee's problem identification and resolution activity and identified improvement needs. Based on interviews conducted during the inspection, workers at the site felt free to raise issues with their management and to input them into the problem identification and resolution program. The inspection did not identy significants differences between the licensee's assessment of thier overall corrective action program and the NRC's program assessment.
Inspection Report# : 2001006*(pdf)*

Significance: G Dec 14, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
FAILURE TO PROMPTLY IDENTIFY AND CORRECT LONG-STANDING PROBLEMS WITH SAFETY-RELATED CHILLERS.
The licensee identified a non-cited vilation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, for failure to determined and take corrective actions to preclude repetition. Contrary to the above, licensee actions from 1996 through 2000 to resolve longstanding problems with safety related heating and ventilation system chillers for plant areas including: (1) 6.9 KV shutdown board rooms; (2) 480 V board rooms; (3) electric board rooms; and (4) main control room were not timely and effective to prevent recurrence. This licensee identified finding was determined to be of very low safety significants.
Inspection Report# : 2001006*(pdf)*

Last modified : March 27, 2002