

Sequoyah 2

Initiating Events

Significance:  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:  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\(pdf\)](#)

Significance:  Jul 17, 1999

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO ENSURE ACCURACY OF A FIRE SUPPRESSION SYSTEM DESIGN DRAWING.

A violation of 10 CFR, Appendix B, Criterion III was identified for failure to ensure the accuracy of a fire protection electrical drawing which resulted in an inadequate surveillance instruction and the resultant failure to perform a surveillance requirement. Fire detectors in fire zones 174 and 175 were wired such that they would actuate the wrong suppression valves and thus no water would be supplied to a Unit 2 mechanical equipment room in the event of an actual fire. The mechanical flow diagram and the pre-fire plan were correct and available, if needed, in the control room and to the fire brigade to assist in locating the suppression valves for the purpose of manual actuation of the valves.

Inspection Report# : [1999004\(pdf\)](#)

Significance:  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# : [2000001\(pdf\)](#)

Mitigating Systems

Significance:  Jun 29, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM AN ADEQUATE DESIGN MODIFICATION REVIEW PRIOR TO MODIFYING EMERGENCY DIESEL GENERATORS STARTING AIR SYSTEM

The inspectors identified a non-cited violation of 10 CFR 50 Appendix B, Criterion III, Design Control, for failure to perform an adequate design modification review prior to modifying the starting air systems of the site's four EDGs. The inadequate design modification review had a credible effect on safety because it contributed to the installation of modified EDG air start system pressure control valves that failed to perform as required. The modification simultaneously degraded all four of the site EDGs, reducing their reliability and necessitating corrective actions that reduced EDG availability. The finding was of very low safety significance because it did not result in an actual loss of safety function.

Inspection Report# : [2002002\(pdf\)](#)

Significance:  Mar 30, 2002

Identified By: NRC

Item Type: FIN Finding

DEGRADATION OF EMERGENCY DIESEL GENERATOR (EDG) STARTING AIR PRESSURE CONTROL VALVES

The inspectors identified deficiencies in identifying, communicating, and addressing a common cause degradation of the air starting systems (pressure control valves) of the site's four EDGs during the period from January 2001 through March 2002. The finding had very low safety significance because no actual loss of safety function was identified.

Inspection Report# : [2001005\(pdf\)](#)

G

Significance: Mar 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO START REMAINING EDGs When 2A-A EDG FAILED TO START

The inspectors identified a non-cited violation of Technical Specification 3.8.1.1, for failure, to demonstrate the operability of the remaining emergency diesel generators (EDGs) within one hour and at least once per 8 hours thereafter, following a start failure of a EDG. The finding had very low safety significance because the remaining EDGs were subsequently started during their routine surveillance intervals which demonstrated that their safety function had not been lost.

Inspection Report# : [2001005\(pdf\)](#)

G

Significance: Mar 30, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

INADEQUATE PROCEDURE FOR FILLING EMERGENCY CORE COOLING SYSTEM (ECCS)

The licensee identified a non-cited violation of Technical Specification 6.8.1.a, Procedures and Programs on January 9, 2002 for an inadequate procedure (Standard Operating Procedure 1-SO-62-1). The procedure did not provide adequate instructions to ensure ECCS suction piping was full following system draining for maintenance.

Inspection Report# : [2001005\(pdf\)](#)

G

Significance: Mar 29, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE PROCEDURE GUIDANCE FOR PLANT FIRES

The inspectors identified a non-cited violation of Technical Specification 6.8.1.a, Procedures and Programs, for inadequate procedure guidance related to the transition from Abnormal Operating Procedure (AOP), Plant Fires, to AOP, Shutdown From Auxiliary Control Room (ACR), in the event of a severe fire. The delayed transition to the ACR could challenge the operators' ability to perform certain critical safe shutdown functions within the times specified in the licensee's safe shutdown calculation for Appendix R. This finding had very low safety significance because it did not affect fire detection, fire suppression, or fire barriers.

Inspection Report# : [2002003\(pdf\)](#)

G

Significance: Mar 29, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

INADEQUATE EMERGENCY LIGHTING FOR REFUELING WATER STORAGE TANK (RWST) SUCTION VALVES

The licensee identified a non-cited violation of 10 CFR 50 Appendix R, III.J, Emergency Lighting, for failure to

provide emergency lighting with at least an 8-hour battery power supply for Unit 1 and 2, RWST suction valves. Manual operation of these valves is required in the event of a severe fire in accordance with licensee's shutdown procedures.

Inspection Report# : [2002003\(pdf\)](#)

Significance:  Mar 29, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

INADEQUATE PROTECTION FOR VOLUME CONTROL TANK (VCT) SUCTION VALVES

The licensee identified a non-cited violation of 10 CFR 50 Appendix R, III. G.2, Fire Protection Safe Shutdown Capability, for failure to protect cables to the VCT suction valves to prevent maloperation of components necessary to achieve and maintain hot shutdown conditions.

Inspection Report# : [2002003\(pdf\)](#)

Significance:  Dec 29, 2001

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

FAILURE TO REALIGN BORIC ACID TANK FLOW PATH TO THE REACTOR COOLANT SYSTEM

A non-cited violation of Technical Specification 6.8.1.a, Procedures and Programs was identified for failure to follow the procedure for realigning the Unit 2 B boric acid tank (BAT) to the reactor coolant system after a transfer of boric acid from BAT C to BAT B was completed. This resulted in the function to provide highly concentrated boric acid to refill the refueling water storage tank being unavailable for nearly 3 days. This finding had a credible impact on safety because it rendered the B boric acid tank unavailable for anticipated transient without scram (ATWS) and steam generator tube rupture (SGTR) mitigation. For ATWS mitigation, highly concentrated boric acid had been available from the RWST through the high pressure charging pumps. Therefore, the portion of the finding related to ATWS mitigation was of very low safety significance. With respect to SGTR event mitigation, an SDP Phase 3 assessment determined that this portion of the finding was also of very low safety significance because of the short time that the equipment was unavailable.

Inspection Report# : [2001004\(pdf\)](#)

Significance:  Dec 29, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO IMPLEMENT 2B-B EDG MAINTENANCE PROCEDURE

The licensee identified a non-cited violation of TS 6.8.1.a, Procedures and Programs for failure to take corrective action as required in step 6.15 (note 2) of Procedure 2-PI-MDG-082-002.B, Two Year Preventive Maintenance of Diesel Engine Set 2B-B, Rev. 4. on March 14, 2001, when the measured Unit 2 2B2 engine cylinder number 11 piston-to-head clearance exceeded the acceptance criteria. This licensee identified finding was determined to be of very low safety significance.

Inspection Report# : [2001004\(pdf\)](#)

Significance:  Sep 29, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW RHR PERFORMANCE TEST PROCEDURE

The inspectors identified a non-cited violation of Technical Specification 6.8.1.a, for failure to follow an residual heat removal pump performance surveillance procedure, which required a Unit 2 RHR heat exchanger outlet flow control valve to be closed prior to starting the RHR pump. The failure to close the valve resulted in a system water hammer. The finding was of greater than minor significance because it had a credible impact on safety in that had the water hammer been more severe, as a result of increased gas accumulation, system operability could have been affected. The finding was of very low safety significance because RHR system operability was not impacted by the water hammer.
Inspection Report# : [2001003\(pdf\)](#)

Significance:  Sep 29, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO CLOSE SAMPLE VALVE FOR BORIC ACID STORAGE TANK B

The licensee identified a non-cited violation of Technical Specification 6.8.1.a (Procedures) on July 26, 2001, when a primary system sample valve was not closed after completing a chemistry sample. An operator noticed a boric acid tank level decrease and identified the open valve.

Inspection Report# : [2001003\(pdf\)](#)

Significance:  Mar 31, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO TEST THE TURBINE DRIVEN AUXILIARY FEEDWATER PUMP STEAM SUPPLY TRANSFER FUNCTION

A non-cited violation of 10 CFR 50, Appendix B, Criterion XI, Test Control, which requires that a test program shall be established to assure that all testing required to demonstrate that SSCs, will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. On October 22, 2000, following an unanticipated transfer of the steam supply to the Unit 2 turbine driven auxiliary feedwater pump, due to a clogged sensing line pulsation dampener, the licensee identified that the steam supply transfer function was not being tested as part of a test program. This licensee identified finding was determined to be of very low safety significants.

Inspection Report# : [2000008\(pdf\)](#)

Significance:  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:  Sep 30, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO SCHEDULE POST-MAINTENANCE TEST ON 2B-B 480V BOARD ROOM AIR HANDLING UNIT

A non-cited violation of Technical Specification 6.8.1.a was identified for failure to schedule a post-maintenance test on a Unit 2 electrical board room air handling unit (AHU), when the test on the AHU could not be performed at the time of field work completion. The finding had very low safety significance because a redundant AHU was operable and in service so there was not an actual loss of board room cooling system safety function.

Inspection Report# : [2000006\(pdf\)](#)



Significance: Apr 01, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CORRECT IDENTIFIED DEFICIENCIES 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: Feb 12, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW PROCEDURE RESULTING IN SIMULTANEOUS IN-OPERABILITY OF BOTH UNIT 2 SAFETY INJECTION PUMPS

A violation of Technical Specification 6.8.1.a was identified for failure of maintenance personnel to follow procedures which resulted in the unplanned simultaneous unavailability of both trains of the safety injection system for a period of approximately 30 minutes and entry into Technical Specification 3.0.3 for about two and a half hours. Specifically, maintenance technicians changed the oil in the 2B-B safety injection pump motor, which rendered it inoperable, while the 2A-A safety injection pump was tagged out of service for routine maintenance. The technicians should have changed the oil in the 2A-A safety injection pump. The risk significance of this finding was low due to the brief time that both safety injection pumps were out-of-service and that safety injection from other emergency core cooling system equipment was maintained.

Inspection Report# : [2000001\(pdf\)](#)



Significance: Feb 04, 2000

Identified By: NRC

Item Type: FIN Finding

ARV CONTROLLER OPERATION

While controlling reactor coolant temperature subsequent to a Unit 2 reactor trip, the reactor operator did not fully understand the indication of small differences in the controller setpoint for ARV 3 and as a result the operator placed the valve in manual override shut. This action rendered the automatic pressure control feature of the ARV inoperable. The inspectors determined through discussions with the licensee that ARV operation when in manual override control

was not well understood by some plant operators. The risk significance of this finding was low because decay heat removal capability during the event was maintained.

Inspection Report# : [2000003\(pdf\)](#)

Significance:  Feb 04, 2000

Identified By: Self Disclosing

Item Type: FIN Finding

AFW PUMP BREAKER FAILURE

The auxiliary feedwater (AFW) pump 2A-A breaker failed to close during an event which caused motor-driven AFW pump 2A-A to not start as required. An extensive root cause determination was being conducted. The risk significance of this finding was low because both the 2B-B motor-driven and the turbine-driven AFW pumps were available and restored steam generator water levels.

Inspection Report# : [2000003\(pdf\)](#)

Significance:  Feb 04, 2000

Identified By: Self Disclosing

Item Type: FIN Finding

ATMOSPHERIC RELIEF VALVE FAILURE TO CLOSE

Atmospheric relief valve (ARV) 2 failed to close automatically during a Unit 2 reactor trip, but was manually closed by the reactor operator. The valve failed to close due to an excessive recovery time from the valve's controller saturation brought on by a momentary loss of power from inverter 2-IV. The faulty controller was replaced by the licensee prior to unit restart. The risk significance of this valve failure was low because manual operation of ARV 2 and the other ARVs were available throughout the event

Inspection Report# : [2000003\(pdf\)](#)

Significance:  Feb 04, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROPERLY TORQUE MAIN FEEDWATER CHECK VALVES

A violation of Technical Specification 6.8.1.a was identified for failure to follow the maintenance instruction used to torque main feedwater check valves 2-VLV-3-508 and 2-VLV-3-510. Valve 2-VLV-3-508 developed a body-to-bonnet leakrate of about 60-70 gpm during the transient. This leakage complicated a Unit 2 transient in that feedwater from the AFW system was diverted from a steam generator. The risk significance of this flow diversion was low because there was sufficient feedwater flow capacity from motor-driven AFW pump 2B-B and the steam-driven AFW pump to restore the steam generators to their normal water levels.

Inspection Report# : [2000003\(pdf\)](#)

Significance:  Feb 04, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW EMERGENCY PROCEDURE AND VERIFY FOUR ERCW PUMPS RUNNING

A violation of Technical Specification 6.8.1.a was identified for failure to follow the emergency operating procedures during the transient. The licensee failed to follow Emergency Procedure E-O when a licensed operator failed to verify at least four emergency raw cooling water (ERCW) pumps running after the reactor trip and safety injection. The failure to verify at least four ERCW pumps running resulted in only three ERCW pumps running after the safety

injection. The failure to start the fourth pump was of low safety significance because there was adequate ERCW flow during the event.

Inspection Report# : [2000003\(pdf\)](#)

Significance:  Jan 01, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW PROCEDURE RESULTED IN AN INOPERABLE UNIT 2 RADIOACTIVITY MONITOR

A violation of Technical Specification 6.8.1.a, was identified for failure to follow a procedure during a corrective maintenance activity which resulted in the Unit 2 lower containment atmosphere particulate and gaseous radioactivity monitor 2-RM-90-106, being inoperable for approximately three hours. The Technical Specification allowed outage time of six hours for the instrument was not exceeded and; therefore, the finding was determined to have low safety significance.

Inspection Report# : [1999008\(pdf\)](#)

Significance:  Nov 20, 1999

Identified By: Self Disclosing

Item Type: FIN Finding

WORK ACTIVITY RESULTS IN A LOST OF POWER TO UNIT 2 2A-A 6.9KV SHUTDOWN BOARD

The Unit 2 2A-A 6.9 Kv shutdown board momentarily lost power on September 16, 1999 due to an electrical fault, which was caused by a Thermo-Lag worker cutting knife when it inadvertently penetrated the insulation on the electrical cabling supplying the 2A-A shutdown board. The use of the knife in this particular work activity was caused by ineffective work oversight and lack of job specific pre-job briefing. However, all mitigating systems functioned as designed and no increase in any initiating event frequency or impact on the reactor coolant barrier integrity was evident.

Inspection Report# : [1999007\(pdf\)](#)

Significance:  Aug 28, 1999

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO PROMPTLY ID AND CORRECT PROBLEMS WITH THE CAL. OF ULTIMATE HEAT SINK INSTRUMENTATION

A violation of 10 CFR 50, Appendix B, Criterion XVI was identified for failure to identify and correct calibration process problems involving Unit 2 ultimate heat sink temperature monitoring instrumentation. Also, the lack of an extent of condition review for this problem resulted in identifying a deficient condition in another instrument loop in an untimely manner. The instrumentation met the established acceptance criterion when calibration checks were performed using the proper testing methodology, thus creating a condition having little or no impact on safety.

Inspection Report# : [1999005\(pdf\)](#)

Significance:  Jul 17, 1999

Identified By: Licensee

Item Type: FIN Finding

Unit 2 MSIVs FAILED TO MEET STROKE TIME CRITERIA OF ASME CODE SECTION XI TESTING.

Unit 2 main steam isolation valves (MSIVs) failed to meet the stroke time acceptance criteria during ASME Section XI

testing in Mode 5 due to mechanical thermal binding of the valves as a result of temperature differences between the valve body and poppet. The MSIVs were required to be operable in Modes 1, 2 and 3 only. The condition of concern (main steam line break following a cooldown to less than 447 F) is a condition that would normally be the result of a rapid cooldown. The thermal binding of the MSIVs did not directly affect the operability of the MSIVs in Modes 1, 2 or 3.

Inspection Report# : [1999004\(pdf\)](#)

Significance:  Jul 17, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MEET SURVEILLANCE REQMTS FOR POSITION VERIFICATION OF ECCS THROTTLE VALVE.

A violation of Technical Specification surveillance requirement 4.5.2.g.1 was identified for failure to meet the 18 month surveillance requirement for Unit 2 safety injection hot leg throttle valve 2-63-544. A surveillance procedure had failed to include the requirement to verify that the mechanical stop of the valve was in its correct position following maintenance on the valve. The valve was subsequently found out of its required position. In addition, the inspectors determined that the licensee was also not correctly performing this surveillance for other emergency core cooling system valves. The improperly throttled injection throttle valve did not affect the operability of the safety injection system and the inadequate surveillance procedure did not result in loss of function of the safety injection system.

Inspection Report# : [1999004\(pdf\)](#)

Barrier Integrity

Significance:  Jun 29, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO COMPLETE CORRECTIVE ACTIONS TO REPAIR DEFICIENCIES IDENTIFIED DURING EXAMINATION OF UNIT 2 STEEL CONTAINMENT VESSEL

The inspectors identified a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, Corrective Action, for failure to promptly correct Unit 2 steel containment vessel degraded coatings and remove the accumulated rust. This steel containment vessel condition remained uncorrected approximately nine years (1990 - 1999). The degraded condition had a credible impact on safety because: (1) the extent of condition and its effects on the structural integrity of the steel containment vessel were previously unknown; (2) corrective actions had not been scheduled; and (3) the degraded condition may not have been identified because the licensee's inspection procedures excluded re-examination of the areas where the degraded coatings and rust exist. The degraded condition was of very low safety significance because insufficient corrosion of the steel containment vessel had occurred to affect containment integrity.

Inspection Report# : [2002002\(pdf\)](#)

Significance:  Mar 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO ENSURE AUX BLDG SECONDARY CONTAINMENT EXCLUSION/FIRE DOOR A55 WAS SHUT & LATCHED

The inspectors identified a non-cited violation of License Condition 2.C.16, Fire Protection Program, for failure to

maintain a door shut, which was required to be closed and latched to maintain the integrity of the auxiliary building secondary containment exclusion boundary and to prevent the spread of a fire. The finding had very low safety significance because fire detection and suppression were operable on both sides of the door and there were no plant activities in the affected area to substantially increase the severity of a postulated fire.

Inspection Report# : [2001005\(pdf\)](#)

Significance:  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\(pdf\)](#)

Significance:  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:  Feb 04, 2000

Identified By: Licensee

Item Type: FIN Finding

CONTAINMENT ISOLATION VALVE FAILURE TO CLOSE

Glycol floor cooling containment isolation valve 2-FCV-61-122 failed to close during a Unit 2 event due to a valve stem lubrication problem. The valve should have automatically closed due to phase A containment isolation signal which occurred as a result of the safety injection signal. Its redundant isolation valve automatically closed as designed. This degraded containment isolation barrier was of low safety significance because it was not a direct release pathway for reactor coolant or containment atmosphere.

Inspection Report# : [2000003\(pdf\)](#)

Significance:  Jul 17, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MEET REQMTS FOR CONTMNT BLDG PENETRATIONS ISOLATION DURING REFUELING.

A violation of Technical Specification 3.9.4.c was identified for loss of containment closure during Unit 2 refueling. Three direct unmonitored paths, specifically through containment penetrations for ice blowing, ice condenser drains and steam generator sludge lancing equipment, existed from inside containment to outside the containment atmosphere while fuel movement was in progress. The probability of fuel damage during fuel movement is low and the potential for any substantial off-site release through these paths was also low.

Inspection Report# : [1999004\(pdf\)](#)

Emergency Preparedness

Significance:  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

Significance:  Mar 01, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO MAINTAIN COMPLETE AND ACCURATE PERSONNEL DOSE RECORDS

The licensee identified a non-cited violation of 10 CFR 20.401, 10 CFR 20.2106 and 10 CFR 50.9 for failure to maintain accurate records of doses received by all individuals for whom monitoring was required. This finding was not processed under the Reactor Oversight Process and was characterized as a severity level IV violation consistent with Supplement VII of the Enforcement Policy because it involved the accuracy of required records.

Inspection Report# : [2002006\(pdf\)](#)

Public Radiation Safety

Physical Protection

Significance: SL-IV Dec 28, 2001

Identified By: NRC

Item Type: VIO Violation

FAILURE TO ADHERE TO PHYSICAL SECURITY INSTRUCTION PERSONNEL SEARCH

The NRC determined that a violation for a deliberate failure to implement the plant Physical Security Plan and Physical Security Instruction (PHYSI)-32, occurred on April 19, 2000 when an individual entering the protected area received an alarm from the metal detector. The security officer did not ensure that all metal, including his shoes, were removed, but conducted a physical search of the individual instead of requesting that the individual remove metal and shoes and process through the metal detector again. The violation had very low safety significance because an adequate physical search had been conducted.

Inspection Report# : [2001007\(pdf\)](#)

Significance: SL-IV Dec 28, 2001

Identified By: NRC

Item Type: VIO Violation

EMPLOYEE PROTECTED ACTIVITY

The NRC determined that a violation of 10 CFR 50.7, Employee Protection, occurred on April 19, 2000 when the licensee discriminated against a contract security officer as a result of engaging in protected activity. Specifically, the individual objection to being instructed not to follow Physical Security Instruction PHYSI-32, which was part of his assigned responsibilities. The violation had very low safety significance because the uncertainty of the intent of the verbal communications, and the low underlying safeguards significance of the procedural violation (i.e., the procedure was subsequently revised to allow security guards the discretion to conduct a physical search instead of requiring an individual to remove his or her shoes and process through the metal detector again).

Inspection Report# : [2001007\(pdf\)](#)



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 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 50-327, 328/01-07, dated January 10, 2002 closed apparent violation (AV) 200006-02. In the report the NRC determined that a violation of NRC requirements had occurred and upgraded the AV to a Notice of Violation, severity level IV. A separate PIM entry, 20001007-01 identifies this violation].

Inspection Report# : [2000006\(pdf\)](#)

Significance:  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:  Jun 29, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO ENSURE CENTRIFUGAL CHARGING PUMP (CCP) SUCTION VALVE FROM VOLUME CONTROL TANK (VCT) WAS PROPERLY ISOLATED DURING MAINTENANCE

The licensee identified a non-cited violation of Technical Specification 6.8.1.a, Procedures and Programs, for failed to follow procedure to ensure that the Unit 2 CCP suction valve from the VCT (2-FCV-62-132), was properly isolated for maintenance activities.

Inspection Report# : [2002002\(pdf\)](#)

Significance: N/A Mar 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW ADMINISTRATIVE GUIDANCE FOR PROCEDURE CHANGES

The inspectors identified a non-cited violation of Technical Specification 6.8.1.a, Procedures and Programs, for failure to follow administrative guidance for making an intent change to a procedure. A containment pressure control procedure, which temporarily resets the steam generator low-low water reactor trip setpoint during venting, was used to make a change to this setpoint for a purpose unrelated to venting. The finding was of very low safety significance because not performing a intent change review before procedure execution did not directly affect any initiating events or mitigation equipment.

Inspection Report# : [2001005\(pdf\)](#)

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 identify significant differences between the licensee's assessment of their overall corrective action program and the NRC's program assessment.

Inspection Report# : [2001006\(pdf\)](#)



Significance: 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 violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, for failure to determine 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 significance.

Inspection Report# : [2001006\(pdf\)](#)

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\(pdf\)](#)

Last modified : August 29, 2002