

Duane Arnold 4Q/2004 Plant Inspection Findings

Initiating Events

Significance:  Oct 30, 2004

Identified By: NRC

Item Type: FIN Finding

FAILURE TO CORRECT THE EXCESSIVE VIBRATIONS ON THE 'A' FRV POSITIONER.

A finding of very low safety significance was identified through a self-revealing event when the licensee failed to ensure that the excessive vibration problems associated with the 'A' Feedwater Regulating Valve (FRV) Positioner was properly addressed after the initial failure. Since the vibration problems were not properly addressed, a subsequent failure occurred, which resulted in severe feed water oscillations.

The finding was more than minor, since the excessive vibrations resulted in a valve Positioner failure that caused severe feed water oscillations, thereby affecting plant stability. This finding was determined to be of very low safety significance, since it would not have impacted any mitigating systems availability or functions during a reactor trip. The licensee replaced the 'A' FRV Positioner and addressed the vibration problems by modifying the mounting bracket. No violation of NRC requirements occurred.

Inspection Report# : [2004005\(pdf\)](#)

Significance:  Apr 27, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW THE ANNUNCIATOR RESPONSE PROCEDURE FOR RECIRCULATION PUMPS.

A finding of very low safety significance was identified by the resident inspectors when control room operators failed to implement portions of an annunciator response procedure (ARP) 1C04B for high vibrations on the 'B' recirculation pump, after the alarm was validated locally by the vibration engineer. Once identified, the licensee conducted operator training on procedural compliance and performed a root cause evaluation to evaluate the issue of procedural noncompliance.

The finding was more than minor since the failure to perform actions contained in approved procedures has the potential to adversely impact plant safety. The finding was determined to be of very low safety significance since no adverse transients or consequences occurred. An NCV of Technical Specification (TS) 5.4.1.a for procedural non adherence was identified.

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

Significance:  Feb 28, 2004

Identified By: NRC

Item Type: FIN Finding

FAILURE TO ENSURE PROPER REASSEMBLY OF THE 'E' CONDENSATE DEMINERALIZER RESULTED IN A MANUAL REACTOR SCRAM.

A finding of very low safety significance was identified through a self-revealing event when the licensee failed to ensure that the 'E' condensate demineralizer was properly reassembled following a septum replacement. The improperly assembled demineralizer resulted in a resin intrusion, which caused an increase in reactor water conductivity, and a subsequent reactor scram. The licensee repaired the 'E' condensate demineralizer.

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

Mitigating Systems

Significance:  Dec 28, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM PROMPT AND ADEQUATE CORRECTIVE ACTIONS FOR ISSUES ASSOCIATED WITH VT-2 INSPECTIONS.

A finding of very low safety significance was identified by the inspectors when the licensee failed to take prompt and adequate corrective actions for Visual Testing (VT) -2 inspections that were performed by unqualified personnel. The primary cause of this finding was related to the Cross-Cutting area of Problem Identification and Resolution.

The finding was more than minor since the failure to take prompt and adequate corrective actions on plant mitigating systems has the potential to adversely impact plant safety by affecting the availability and reliability of the associated equipment. The finding was determined to be of very low safety significance since all mitigating systems were still available. Adequate corrective actions were not put into place until after the inspectors challenged Plant and Engineering Management. An NCV of 10 CFR 50, Appendix B, Criterion XVI, was identified for the failure to take prompt and adequate corrective actions. The licensee re-qualified VT-2 inspectors, rescheduled the associated VT-2 inspections, and revised the operability evaluation to address surveillance requirements.

Inspection Report# : [2004005\(pdf\)](#)

G

Significance: Jul 18, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM THE ANNUNCIATOR RESPONSE PROCEDURE FOR THE "B" SBDG OUTPUT BREAKER.

A finding of very low safety significance was identified by the resident inspectors when control room operators did not perform the annunciator response procedure (ARP) 1C08B-A-2, "'B' Diesel to 1A4 Breaker 1A411 Trip," when the 'B' standby diesel generator (SBDG) output breaker failed to close. Once identified, the licensee conducted operator training on procedural compliance and standards.

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

G

Significance: Jun 07, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO ENSURE THAT ADEQUATE DESIGN CONTROL WAS MAINTAINED FOR D230 CONTROL RODS.

A finding of very low safety significance was identified through a self-revealing event when Reactor Engineering personnel did not verify that the calculations used to determine depletion limits for the D230 Control Rods were consistent with control rod design limits. As a result, two control rods exceeded segment depletion limits. A contributing cause of this design control violation was related to the cross-cutting area of Human Performance. Once identified, the licensee performed independent calculations and verified that the rods did not exceed nodal depletion limits, thereby maintaining reactivity control. In addition, the licensee is performing a root cause evaluation for the issue.

The finding was more than minor since, if left uncorrected, eight control rods would have potentially exceeded their design depletion limits. Rod programming sequences were changed to prevent exceeding depletion limits. The finding was determined to be of very low safety significance since the control rods design limits were not exceeded. An NCV of 10CFR 50, Appendix B, Criterion III, was identified for the failure to ensure that design control was maintained.

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

G

Significance: Jun 03, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM PROMPT CORRECTIVE ACTIONS FOR POTENTIAL DEGRADED UNDERGROUND CABLE.

A finding of very low safety significance was identified through a self-revealing event when the licensee failed to take prompt corrective actions for potential degraded underground cable after the April 2003 switchyard cable failure. Prior to the licensee performing corrective actions, an additional underground cable failure of the 'A' river water system (RWS) pump occurred. Once identified, the licensee replaced the cable to the 'A' RWS pump. In addition, the licensee is developing a degraded/aging cable program.

The finding was more than minor since the availability and reliability of the 'A' RWS pump was affected. The finding was determined to be of very low safety significance since three redundant RWS pumps were still available. An NCV of 10 CFR 50, Appendix B, Criterion XVI, was identified for the failure to take prompt corrective actions

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

G

Significance: Feb 28, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE ACCEPTANCE CRITERIA FOR EMERGENCY DIESEL GENERATOR HEAT EXCHANGERS INSPECTIONS.

A finding of very low safety significance was identified by the inspectors when the licensee failed to provide appropriate quantitative or qualitative acceptance criteria for determining that important activities were satisfactorily accomplished for the Generic Letter (GL) 89-13 heat exchanger inspections on the emergency diesel generators (EDGs). The licensee has revised their inspection procedures to include adequate acceptance criteria and documentation.

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

G

Significance: Feb 14, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MAINTAIN ADEQUATE DESIGN CONTROL WHEN THE RESIDUAL HEAT REMOVAL SERVICE WATER/EMERGENCY SERVICE WATER PIT LEVEL INDICATING SWITCHES WERE DOWNGRADED.

A finding of very low safety significance was identified by the inspectors when the licensee failed to ensure proper design control was maintained when the residual heat removal service water (RHRSW)/emergency service water (ESW) pit level indicating switches (LIS) 4935A and LIS4935B were downgraded to non safety-related components. When the LISs were downgraded, safety-related and non safety-related circuits were cross connected without appropriate isolation devices. The licensee rededicated the LISs as safety-related components.

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

G

Significance: Feb 13, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Incorrect Factor of Safety Specified in Design Evaluation of HPCI Pipe Support

The team identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance. Specifically, when relocating a high pressure coolant injection turbine exhaust line valve the licensee failed to correctly use the original design anchor bolt safety factor in the supporting calculation. Following discovery, the licensee entered the violation into their corrective action system as condition report CAP 030373.

Inspection Report# : [2004006\(pdf\)](#)

G

Significance: Feb 13, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Promptly Enter a Condition Adverse to Quality into the Corrective Action Program

The team identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," having very low safety significance. Specifically, the licensee failed to promptly identify and evaluate a calculation error that resulted in a potentially non-conservative technical specification value for the condensate storage tank low level setpoint. The licensee agreed that the issue was not adequately entered into the corrective action program, initiated CAP 030703 to address the issue, and performed an immediate operability review.

Inspection Report# : [2004006\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

G

Significance: Jul 26, 2004

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW THE APPROVED PROCEDURES FOR THE DRAINING OF THE FUEL POOL COOLING SYSTEM.

A finding of very low safety significance was identified through a self-revealing event when the control room operators failed to follow the approved procedure for the draining of the fuel pool cooling system. The draining evolution resulted in the floor drains backing up, thereby contaminating a significant portion of the south end of the floor in the reactor building. Once identified, the licensee cleaned up the contaminated area, which resulted in workers receiving an unplanned dose for the scheduled evolution. Additionally, the licensee conducted operator training on management expectations and pre job briefings.

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

Public Radiation Safety

Physical Protection

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

Miscellaneous

Last modified : March 09, 2005