Seabrook 1
3Q/2003 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jun 28, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish a Test Program to Demonstrate Satisfactory Performance of the Enclosure Air Handling to Cool Safety-Related Equipment
The inspector identified a non-cited violation of 10 CFR 50, Appendix "B," Criteria XI, "Test Control." The licensee failed to develop a test program for routine performance monitoring of the enclosure air handling (EAH) system, which is designed to maintain the area temperatures of engineered safety function equipment within design limits during normal and accident conditions. Such testing is required since the EAH system cools the charging pumps, safety injection pumps, the residual heat removal pumps and heat exchangers, and the containment spray pumps and heat exchangers.

The finding is more than minor because it affected the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined that the finding was of very low safety significance because the EAH-supported equipment remained operable and there was no loss of safety function.
Inspection Report# : 2003003*(pdf)*

Significance: G Jun 28, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate the Cause of the Failure of Diodes associated with Safety-Related 4kV Breakers
The inspectors identified a non-cited violation of 10 CFR 50, Appendix "B", Criterion XVI, "Corrective Action." Seabrook did not perform a cause analyses for two failures of diodes associated with 4kV safety-related breakers and in one case did not take corrective actions to prevent recurrence.

The finding is more than minor because it affected the Mitigating Systems cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. The reliability of 4kV breakers was reduced based on the multiple failures that occurred and the potential for additional failures. The inspectors determined that the finding was of very low safety significance since the failures in 2002 and 2003 would not have resulted in loss of function for the mitigating system or train.
Inspection Report# : 2003003*(pdf)*

Significance: G Jun 28, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Test the Emergency Diesel Generator in Accordance with Technical Specifications for a Potential Common Cause Issue
The inspectors identified a non-cited violation of technical specification 3.8.1.1, for failure to properly test the redundant "B" emergency diesel generator (EDG) for a potential common cause issue on the "A" EDG. On June 10, Seabrook had identified a defective condition on one exhaust valve assembly of the "A" EDG, which could have affected operability and/or ability to perform its intended safety function. Although not characterized as a corrective action violation, this was the 2nd violation for TS required testing of the redundant EDG for common cause potential.

The finding is considered more than minor because if the condition had existed on the remaining EDG and was left uncorrected, it could have degraded and impacted the operability and availability of the remaining EDG. The finding was determined to be of very low safety significance because: 1) a fully loaded operation of the "B" EDG was demonstrated subsequent to this finding on June 19; 2) an extent of condition evaluation was accomplished by Seabrook; and 3) two operability determinations were performed that found the "B" EDG to be operable.
Inspection Report# : 2003003*(pdf)*

Significance: G Mar 29, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Take Appropriate Action to Correct or Address a Deficiency in Accordance With Operations Procedures Resulting in Inoperability of the Motor Driven Emergency Feedwater Pump
Green. The inspectors identified a NCV of Technical Specification 6.7.1.a, "Procedures and Programs," in that operators did not take appropriate action to correct or address a deficiency (indications of an oil leak) which resulted in the inoperability of the motor driven emergency feedwater (MDEFW) pump, as specified by Operation Management Manual 10.8. In addition, the inspectors identified that Seabrook's evaluation and corrective actions did not address all causes, such as the operators' action, for the inoperability of the pump.

The finding was considered more than minor since the MDEFW pump availability was impacted. The finding was determined to be of very low safety significance in accordance with Phase I of the Reactor Safety SDP because the total unavailability time was less than the allowed outage time in the Technical Specifications. Because the finding is of very low safety significance and the finding was captured in Seabrook's corrective action program, this finding is being treated as a NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy.
Inspection Report# : 2003002*(pdf)*

Significance: G Mar 29, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Recognize and Correct the Effects of Seat Leakage Past the Steam Supply Valves to the Turbine Driven Emergency Feedwater Pump
Green. The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion XVI "Corrective Action," in that corrective actions taken were not adequate in recognizing and correcting the effects of a long-standing turbine driven emergency feedwater (TDEFW) pump steam supply valve leakage. The inadequate compensatory corrective actions for this degraded condition resulted in a frozen section of the steam trap discharge piping rendering the steam trap inoperable in February 2003.

The finding was considered more than minor because the inoperable steam trap challenged the operability of the TDEFW pump and could have affected the availability and reliability of the pump. The finding was determined to be of very low safety significance in accordance with Phase I of the Reactor Safety SDP because the frozen steam trap discharge piping did not result in an actual failure of the TDEFW pump. Because the finding is of very low safety significance and the finding was captured in Seabrook's corrective action program, this finding is being treated as a NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy.
Inspection Report# : 2003002*(pdf)*

Significance: G Feb 28, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Test the Function of the Charging Pumps' Main Lube Oil Pumps
The inspectors identified the licensee had not established a procedure to test or monitor the actual performance of the main lube oil pumps for the centrifugal charging pumps (high head injection pumps). Such proceduralized verification that the non safety-related auxiliary lube oil pump shuts down and the main lube oil pump provides adequate oil flow during charging pump operation ensures that the safety-related main lube oil pumps would perform as designed during events.

This finding was more than minor since it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and could affect the cornerstone objective of ensuring the availability, reliability, and capability of the charging pumps. The issue was considered to be of very low safety significance (Green) based on a Phase 1 evaluation of the Significance Determination Process (SDP) since there was indirect evidence that the lube oil system functioned properly and, therefore, no actual loss of safety function. The issue was determined to be a non-cited violation (NCV) of 10CFR 50, Appendix B, Criterion XI, Test Control.

Inspection Report# : 2003005*(pdf)*

Significance: G Feb 28, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Test a Safety-Related Design Function of the Charging Pumps Minimum Flow Bypass Line Valves
The inspectors identified that the licensee had not established a procedure to test a safety-related design function of the charging pump minimum flow bypass line valves (CS-V-196 & 197). Specifically, the licensee did not test the automatic function of the valves to reopen to provide recirculation flow and charging pump protection at the low flow setpoint.

This finding was more than minor since it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and could affect the cornerstone objective of ensuring the availability, reliability, and capability of the charging pumps. This issue was considered to be of very low safety significance (Green) based on a Phase 1 evaluation of the SDP because some previous calibration data and valve stroke testing results provided evidence of proper valve operation, and there was no actual loss of safety function. This finding was determined to be a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XI, Test Control.

Inspection Report# : 2003005*(pdf)*

Significance: G Oct 04, 2002
Identified By: NRC

Item Type: NCV NonCited Violation
Failure to Perform an Adequate Calculation of Emergency Core Cooling System (ECCS) Pump Suction Piping Void Migration because of Mathematical and Assumption Errors.
A non-cited violation of 10 CFR Appendix B, Criterion III, "Design Control," for failure to identify calculation errors regarding air void acceptance criteria for emergency core cooling piping.

The calculation errors resulted in an incorrect conclusion that air voids in charging and safety injection pump suction piping high points would not likely be entrained in system flow. This issue was more than minor because the incorrect conclusion could reasonably be viewed as a precursor to a more significant event affecting the mitigating systems cornerstone. Specifically, the void limits were based on engineering judgement rather than a technical assessment of charging and safety injection pump performance with void entrainment in the system flow. However, the issue was determined to have very low safety significance in accordance with Phase I of the SDP. The availability of the pumps was never affected because the procedural acceptance criteria limited the detectable air void volumes to a point that performance would not have been degraded.
Inspection Report# : 2002011*(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

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