Brunswick 2
2Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
INADEQUATE CONDENSATE SYSTEM OPERATING PROCEDURE
Green. A self-revealing non-cited violation of Technical Specification (TS) 5.4.1.a. Procedures, was identified for failure to provide adequate condensate system procedural guidance to preclude the reactor feed pumps from tripping on low suction pressure during plant operations. The inadequate procedures contributed to a Unit 2 automatic reactor scram on April 9, 2005, due to low reactor vessel level.

The finding is greater than minor because it is associated with the procedure quality attribute of the Initiating Events Cornerstone and affects the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during power operations. This finding is of very low safety significance because, although it contributes to the likelihood of a reactor trip, it does not contribute to the likelihood that mitigation equipment or functions would be unavailable.
Inspection Report# : 2005003*(pdf)*

Mitigating Systems

Significance: G Mar 31, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to identify Condition Adverse to Quality on Emergency Bus Relay Covers
Green. A self-revealing finding and non-cited violation of 10CFR50, Appendix B, Criterion XVI, was identified for failure to promptly identify a condition adverse to quality associated with mispositioned relay covers for several General Electric HGA relays on emergency bus E-1. The finding resulted in relay 1-E1-AE7-CL-B, which provides a confirmatory bus strip signal to the emergency diesel generator (EDG) 1 output breaker, being failed in the operated state. This caused emergency diesel generator EDG 1 to be in an inoperable condition from March 29, 2004 until the condition was discovered on August 16, 2004. The finding is greater than minor because it is associated with equipment performance and affected the functional capability of the system to respond to initiating events. The finding was evaluated using NRC Inspection Manual Chapter 0609 Appendix A. A Phase 3 Significance Determination Process analysis determined this finding to be of very low safety significance based on the limited number of hours the EDG load rating would have been exceeded. The finding is related to the cross-cutting area of problem identification and resolution due to the failure to identify a condition adverse to quality.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Remote Shutdown Panel Power Supply Inverter Design Deficiency
Green. A self-revealing finding and non-cited violation of 10CFR50, Appendix B, Criterion III, was identified for inadequate design controls in modification Engineering Service Request (ESR) 96-00700 which replaced obsolete inverters in Unit 1 and 2 analog trip units and the Unit 2 remote shutdown panel. The deficiency associated with this issue is inadequate design control associated with replacement of the Unit 2 remote shutdown panel power (RSDP) instrument power supply inverter which could have led to the loss of RSDP instrumentation and reactor core isolation cooling (RCIC) control under certain potential fire induced ground fault conditions. The finding is more than minor because it affected the protection against external factors (fire) attribute of the Mitigating Systems Cornerstone in that it potentially affected the availability of RCIC from RSDP. No actual severe fires requiring main control room (MCR) evacuation and use of RCIC have occurred. Given that no credible fire scenario was possible, this safe shutdown finding had low degradation since MCR functions would not be completely lost for any scenario which could cause loss of the RSDP functions. Since the safe shutdown finding had low degradation, a Phase 1 Significance Determination Process review screened the finding as very low safety significance.
Inspection Report# : 2005002*(pdf)*

Significance: G Dec 31, 2004
Identified By: Self Disclosing

Item Type: NCV NonCited Violation
Inadequate Storage of Standby Liquid Control System Nitrogen Accumulator Repair Kits
Green. A self-revealing finding and non-cited violation of 10CFR50, Appendix B, Criteron XIII, was identified for failure to store Unit 1 standby liquid control system (SLC) nitrogen accumulator repair kits in a condition which did not prevent deterioration. The licensee's material evaluation of the commercially dedicated part did not include special storage requirements and, therefore, the parts were stored, from at least 1999 until March 2004, in a condition which made them susceptible to developing leaks along folds in the nitrogen accumulator bladders. This resulted in accumulator nitrogen leakage into the Unit 1 standby liquid control system and was determined to be the cause of the 1 B standby liquid control pump being discovered in an inoperable condition on July 8, 2004.

This finding is more than minor because it is associated with equipment performance and affected the functional capability of the system to respond to initiating events. This finding was evaluated using MC 0609 Appendix A. A Phase 3 Significance Determination Process analysis determined this finding to be of very low safety significance (Green) because the redundant train of the Unit 1 SLC system remained operable. The licensee's corrective actions included replacing all of the affected nitrogen accumulator bladders.
Inspection Report# : 2004005*(pdf)*

Significance: G Nov 19, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Implementation of the Fire Protection Program For ERFBS Fire Barrier Protection of Circuits In Fire Area DG-8
Green. The inspectors identified a non-cited violation of Brunswick Steam Electric Plant Unit 1 Updated Facility Operating License DPR-71, and Unit 2 Updated Facility Operating License DPR-62, Condition 2.B. (6), for the licensee's failure to adequately implement the fire protection program. In 480 volt switchgear room E7 (Fire Area DG-8), Division II (Train B) circuits in two conduits were routed closer than 20 feet from the redundant Division I (Train A) circuits in the designated separation zone without being protected by a one-hour fire rated barrier, as required. A fire in this area could damage the unprotected cables to components required to achieve and maintain safe shutdown. This finding is greater than minor because it affected the Mitigating Systems Cornerstone objective of equipment availability and reliability, in that required fire barriers for equipment and circuits relied upon for safe shutdown following a fire were not in place. This finding is of very low safety significance because of the low likelihood of fire ignition of transient combustible materials in critical locations near the affected circuits and the exposure transit time of lubricating oil in area DG-8 during diesel generator oil changes is extremely low. In addition, other defense-in-depth fire protection elements including transient combustible administrative controls, passive fire barriers, automatic fire detection, manual suppression capability, and safe shutdown capability from the main control room were still available and effective.
Inspection Report# : 2004010*(pdf)*

Barrier Integrity

Significance: G Jun 30, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
INADEQUATE DESIGN CONTROL FOR DIGITAL FEEDWATER CONTROL SYSTEM MODIFICATION
Green. A self-revealing non-cited violation of 10CFR50, Appendix B, Criterion III, Design Control, was identified for failure to assure that Technical Specification (TS) requirements for the feedwater and main turbine high water trip function remained operable with the introduction of a filtered time constant for reactor vessel level. As a result, instrumentation associated with TS 3.3.2.2, Feedwater and Main Turbine High Water Level Trip Instrumentation, were inoperable from April 30, 2004 for Unit 1 and April 30, 2003 for Unit 2 until the time constant filters were removed on April 10, 2005

This finding is greater than minor because it is associated with the design control attribute of the Barrier Integrity Cornerstone and affects the cornerstone objective of providing reasonable assurance that physical design barriers (i.e., fuel cladding) protect the public from radionuclide releases caused by events. This finding is of very low safety significance because it could affect the fuel cladding, but could not effect the integrity of the reactor cooling system. The cause of this finding is identified as a performance aspect of the human performance cross-cutting area, in that the cause was attributed to a lack of sufficient questioning attitude from engineering personnel, related to the impact of a parameter change on all system output responses.
Inspection Report# : 2005003*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

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