

Brunswick 2

1Q/2004 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: TBD Jan 07, 2004

Identified By: NRC

Item Type: AV Apparent Violation

INADEQUATE CORRECTIVE ACTIONS FOR EDG JACKET WATER COOLING LEAK

An inspector-identified finding was identified for the failure to take adequate corrective actions for conditions adverse to quality associated with the No. 3 emergency diesel generator (EDG 3) jacket water cooling (JWC) system. This condition resulted in EDG 3 being inoperable from December 8, 2003, until January 7, 2004, which was contrary to the requirements of Technical Specification (TS) Limiting Condition for Operation (LCO) 3.8.1, AC Sources-Operating. Two apparent violations were identified for Unit 2: one being 10CFR50, Appendix B, Criterion XVI, Corrective Actions.

This finding is greater than minor because it is associated with the availability and reliability of EDG 3 to mitigate events such as a loss of offsite power. The finding was preliminarily determined to have low to moderate safety significance (White) because the ability of EDG 3 to mitigate a loss of offsite power event was effected, and that EDG 3 provides a substantial amount of the Unit 2 safety-related loads.

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

Significance: TBD Jan 07, 2004

Identified By: NRC

Item Type: AV Apparent Violation

FAILURE TO MEET TECHNICAL SPECIFICATION LCO 3.8.1

An inspector-identified finding was identified for the failure to take adequate corrective actions for conditions adverse to quality associated with the No. 3 emergency diesel generator (EDG 3) jacket water cooling (JWC) system. This condition resulted in EDG 3 being inoperable from December 8, 2003, until January 7, 2004, which was contrary to the requirements of Technical Specification (TS) Limiting Condition for Operation (LCO) 3.8.1, AC Sources-Operating. Two apparent violations were identified for Unit 2: one being TS LCO 3.8.1.

This finding is greater than minor because it is associated with the availability and reliability of EDG 3 to mitigate events such as a loss of offsite power. The finding was preliminarily determined to have low to moderate safety significance (White) because the ability of EDG 3 to mitigate a loss of offsite power event was effected, and that EDG 3 provides a substantial amount of the Unit 2 safety-related loads.

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



Significance: G Dec 20, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Position HPCI System Valve in Accordance with Clearance Order

Green. A self-revealing non-cited violation was identified for the licensee's failure to position the Unit 2 high pressure coolant injection (HPCI) system turbine exhaust stop check valve in the open position following system maintenance, in accordance with plant procedures. This resulted in failure of the exhaust line rupture discs during testing, a primary containment isolation of the system, and activation of the HPCI room fire protection system.

This finding is greater than minor because it is associated with system configuration control and affected the mitigating availability of the HPCI system. This finding was determined to be of very low safety significance (Green) because the HPCI system was returned to an operable status within the Technical Specification allowed outage time. The finding was related to the cross-cutting aspect of Human Performance because the cause was determined to be due to plant operators using improper techniques in verifying the valve's position. Other contributing causes including operator knowledge deficiencies of valve operation, failure to perform an independent check of valve position, and the pre-job brief's limited scope were also related to Human Performance.

Inspection Report# : [2003006\(pdf\)](#)



Significance: G Dec 20, 2003

Identified By: Self Disclosing

Item Type: FIN Finding

Unit 2 Reactor Feed Pump Speed Control Modification

Green. A self-revealing finding (EA 04-017) was identified for an inadequate design review of a Unit 2 reactor feed pump speed control modification. The modification replaced the existing mechanical-hydraulic speed control system with a digital speed control system. The system is powered by internal power supplies that would fault, and thus cease to supply output power, with one cycle of sensed abnormal supply voltage. As a result, the reactor feed pumps would trip following a unit trip due to the supply voltage transient caused by the swap of in-house loads from the unit auxiliary transformer to the startup auxiliary transformer.

This issue is greater than minor because, if left uncorrected, it would increase the likelihood of initiating events caused by a loss of reactor feed pumps following transients and affect the reliability and functional capability of the reactor feed pumps to mitigate events (unit trips). The finding is of very low safety significance because multiple failures of high pressure injection systems would have to occur before the loss of feedwater was critical to cooling the core. This finding was originally identified as unresolved item 05000324/2003006-02, which was closed in Inspection Report 05000325,324/2004002, dated April 19, 2004.

Inspection Report# : [2004007\(pdf\)](#)



Significance: Sep 20, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE CORRECTIVE ACTIONS FOR SERVICE WATER STRAINER BLOWDOWN LINE CLOGGING

The inspectors identified a non-cited violation for the licensee's failure to comply with 10 CFR 50, Appendix B, Criterion XVI. This violation is related to inadequate corrective actions to prevent recurring nuclear and conventional service water pump functional failures caused by clogging of the associated pump's strainer due to marine growth in the service water intake bays. This resulted in six failures in twelve months.

This finding is greater than minor because it resulted in an increase in the likelihood of loss of nuclear and conventional service water initiating events. In addition, the finding affected the operability, availability, and reliability of the nuclear and conventional service water pumps. The finding is of very low safety significance because redundancy existed in the nuclear and conventional service water systems and the relatively short duration of unavailability of the pumps.

Inspection Report# : [2003005\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

Significance: N/A Nov 21, 2003

Identified By: NRC

Item Type: FIN Finding

PROBLEM IDENTIFICATION & RESOLUTION INSPECTION RESULTS

The licensee was effective at identifying problems at a low threshold and entering them into the corrective action program. The licensee

prioritized issues and performed adequate evaluations that were technically accurate and of sufficient depth. Corrective actions developed and implemented for problems were appropriate for the safety-significance of the issue. The licensee's self-assessments and audits were effective in identifying deficiencies. Based on discussions conducted with licensee employees and a review of station activities, the inspectors did not identify any reluctance to report safety concerns.

Inspection Report# : [2003009\(pdf\)](#)

Last modified : May 05, 2004