Brunswick 1
4Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Procedure Resulting in Condensate System Transient
A self-revealing non-cited violation of Technical Specification 5.4.1, Administrative Controls (Procedures), was identified for failure to properly implement requirements for procedure adherence when rinsing a Unit 1 condensate deep bed demineralizer. Procedure steps for starting a third condensate pump when rinsing a condensate deep bed demineralizer at high power were marked N/A (not applicable) and the procedure was performed prior to obtaining supervisor concurrence. As a result, performance of the rinsing procedure on January 4, 2006, resulted in a reduction in condensate system pressure and a plant transient which challenged control room operators. The licensee entered the issue into the corrective action program for resolution. Operators took immediate actions by entering the appropriate abnormal operating procedure and stabilized the plant. In addition, a root cause investigation was performed and the responsible individuals were coached relative to their performance.

This finding is greater than minor because it is associated with system configuration control and affected the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. Although the event contributed to the likelihood of a reactor trip, the finding is of very low safety significance because it did not contribute to the likelihood that mitigation equipment or functions would be unavailable. The cause of this finding is inadequate use of a condensate system procedure and inadequate adherence to a administrative procedure, and is therefore, identified as a performance aspect of the Human Performance cross-cutting area. (Section 4OA2.2).

Inspection Report# : 2006002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Work Management Process
A self-revealing non-cited violation of Technical Specification 5.4.1, Administrative Controls (Procedures), was identified for failing to follow the work management process for the performance of minor maintenance. Minor maintenance was performed on a Unit 1 instrument air isolation valve to a control rod hydraulic control unit without obtaining senior reactor operator approval. During the maintenance, the valve was inadvertently closed which isolated air to the hydraulic control unit and the associated control rod scrammed. As a result, control room operators were challenged by the reactivity event and subsequent power maneuvers to restore the control rod to the proper position. This issue was entered into the corrective action program for resolution.

The finding was more than minor because it is associated with equipment performance and affected the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. This finding is of very low safety significance because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions would not be available. This finding had a crosscutting aspect of Human Performance because the control of the work did not keep operations personnel apprised of

work status or the potential operational impact of the work activities (Section 1R12.2).

Inspection Report# : 2006005 *(pdf)*

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Periodically Calibrate Service Water Pump Discharge Pressure Gages
An NRC-identified non-cited violation of 10CFR50, Appendix B, Criteria XII, Control of Measuring and Test Equipment, was identified for failing to periodically calibrate the Units 1 and 2 service water pump discharge pressure gages. As a result, the quality of the test data collected from the gages, used to satisfy ASME Section XI in-service test requirements and performed to demonstrate pump operability, was compromised. This issue was entered into the corrective action program for resolution.

The finding was more than minor because it was associated with service water pump equipment performance and affected the Mitigating System Cornerstone objective to ensure the capability of system that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected the finding could potentially become a more significant safety concern because the issue affected all the site's service water pumps and degraded pump performance could go undetected. The finding was determined to be of very low safety significance (Green) because it did not result in the loss of safety function of a service water pump (Section 1R22.2).

Inspection Report# : 2006005 *(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Appropriately Evaluate Core Spray Header Piping Flaw
An NRC-identified non-cited violation of Technical Specification 3.5.1, Emergency Core Cooling Systems (ECCS) and Reactor Core Isolation Cooling System, was identified for failure to appropriately evaluate and take corrective measures for a pre-existing flaw on a Unit 1 core spray loop B pipe weld (in-vessel) in accordance with Boiling Water Reactor Vessel and Internals Project guidelines which was committed to by the licensee. This resulted in the Unit 1 core spray loop B subsystem being inoperable for an indeterminate amount of time. The licensee entered the issue into the corrective action program, reevaluated the flaw and implemented a permanent repair of the pipe weld.

This finding is greater than minor because it is associated with core spray system equipment performance and affected the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was determined to be of very low safety significance based on core spray loop B being conservatively assumed to be capable of mitigating all analyzed pipe breaks during the time period assumed, except the large break LOCA core damage sequence (Section 1R22).

Inspection Report# : 2006002 *(pdf)*

Barrier Integrity

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Condenser Air Removal and Off-gas Recombiner System Procedure
An NRC-identified non-cited violation of Technical Specification 5.4.1, Administrative Controls (Procedures), was identified for the failure to adhere to procedure requirements when operators injected service air into the steam jet air ejectors and the offgas flowpath. The initial condition that the service air injection was needed for continued hydrogen

water chemistry operation was not met. As a result of this procedure adherence deficiency, the licensee had reduced the ability to monitor for actual fuel cladding damage. The licensee entered the issue into the corrective action program, secured air injection to the steam jet air ejector, and deleted the instructions which allowed service air injection to the steam jet air ejectors.

This finding is more than minor because it involved adherence to procedures associated with fuel cladding integrity and affected the Barrier Integrity Cornerstone to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The finding was determined to be of very low safety significance because it was only associated with the ability to monitor fuel barrier integrity. This finding was related to the cross-cutting area of Human Performance because the cause was due to failure to adhere to procedures.
Inspection Report# : 2006004 *(pdf)*

Emergency Preparedness

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Potential Reduction in Effectiveness of Emergency Plan
An NRC-identified non-cited violation of 10 CFR 50.54(q) was identified for the failure to determine if the introduction or the increasing of air into the offgas flowpath for the purpose of reducing steam jet air ejector radiation monitor readings would reduce the effectiveness of the site Emergency Plan. The deficiency associated with this finding is that a 50.54(q) review was not performed to determine if there would be a potential reduction in the effectiveness of the site Emergency Plan because emergency action level classifications for both an Unusual Event and an Alert are based on radiation level readings from the steam jet air ejector radiation monitor. The procedure change which allowed the introduction of air into the offgas flowpath, and the implementation of the procedure on June 1, 2006 did not have associated 50.54(q) reviews.

The finding was greater than minor because it is associated with the Emergency Preparedness Cornerstone and potentially affected the program elements of 10 CFR 50.54(b)(4). The finding was of very low safety significance because the licensee performed an analysis of the potential affects of the range of airflow rates on the radiation monitor readings which demonstrated that the emergency action level values would not have been detrimentally affected.
Inspection Report# : 2006004 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

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