Seabrook 1
2Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Comply with TS 3.8.2.1 when a Battery Charger was not Supplying the "B" Bus
The inspectors identified a non-cited violation of Technical Specification (TS) 3.8.2.1, "DC (Direct Current) Sources - Operating." On June 21, 2006, the battery charger supply breaker was incorrectly opened due to a maintenance technician error. This removed the required full capacity battery charger from the 125 volt DC "B" Bus. The operators failed to properly evaluate the control room alarms on the evening of June 21, and did not recognize the degraded condition of their 125 volt DC "B" Bus for the next 12 hours. A new operating crew recognized the condition and determined that the plant was in a two hour TS shutdown action statement. Seabrook had been in a condition requiring the plant to enter TS action statement 3.8.2.1 from approximately 7:00 p.m. on June21, 2006, until 6:20 a.m. the next morning without entering the action statement.

The finding was more than minor because it affected the Initiating Events cornerstone objective to limit the likelihood of events that upset plant stability due to unreliable equipment performance. This finding was determined to be of very low safety significance (Green) since there had been an increase in the probability of an initiating event without an impact on mitigating systems, reactor coolant system leakage, or external event initiators. This finding was associated with the cross-cutting area of human performance and the aspect of using human error prevention techniques since maintenance technicians opened the wrong breaker and the operators on two shifts did not identify and take the appropriate actions following the opening of the supply breaker from the battery charger to the 125 volt DC "B" Bus.
Inspection Report# : 2006003*(pdf)*

Mitigating Systems

Significance: G Jun 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Corrective Actions for Degraded Floor Drains
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action" in that Seabrook did not promptly identify and correct degraded cable spreading room floor hydrostatic barriers. Seabrook identified the degraded barriers following water leakage into the essential switchgear room from an inadvertent cable spreading room deluge system actuation on February 5, 2006. However, following the actuation, Seabrook did not properly evaluate and implement timely compensatory measures for the degraded hydrostatic barrier to protect the essential switchgear rooms. The inspectors concluded that Seabrook had multiple opportunities including internal and external operating experience to identify the degraded barriers.

The finding was more than minor because it affected the Mitigating System cornerstone attribute of Protection Against External Factors such as flood hazards and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. Based on a detailed evaluation of the location and condition of the degraded barriers, the finding was determined to be of very low safety significance (Green) since the flooding-related finding would not cause a plant trip or degrade two or more trains of safety systems. This finding was associated with the cross-cutting area of problem identification and resolution in that Seabrook failed to thoroughly evaluate the degraded hydrostatic barriers in the cable spreading room.
Inspection Report# : 2006003*(pdf)*

Significance: G Jun 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Identification and Evaluation of Degraded Hydrostatic Barriers
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action" in that Seabrook did not take timely corrective actions for clogged drains that support safety-related systems. In 2006, Seabrook completed an inspection of the Emergency Feedwater Pump House drains and discovered three floor drains and two of five hub drains clogged with debris. Seabrook had multiple opportunities to identify and correct the issue including: a 2000 Condition Report which identified that Seabrook had no inspection program for their drains; the initial drain inspections, some of which identified partially clogged drains; and in 2005 when the inspectors identified that the inspection program was not risk or safety-related prioritized. The inspectors concluded that Seabrook did not inspect and remediate their drains which support safety-related systems in a timely manner.

The finding was more than minor because it affected the Mitigating Systems cornerstone objective to ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance (Green) since the flooding- related finding would not cause a plant trip or degrade two or more trains of safety systems. This finding was associated with the cross-cutting area of problem identification and resolution in that Seabrook did not take appropriate corrective actions in a timely manner for the degraded floor drain systems in the plant.
Inspection Report# : 2006003*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inappropriate 10CFR50.59 Safety Evaluation Screen
The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.59; “Changes, Tests, and Experiments.” Specifically, Seabrook adversely changed the bases of Technical Specification (TS) 3.4.10, “Structural Integrity,” to make it applicable to only the reactor coolant system pressure boundary piping, and not all American Society of Mechanical Engineers (ASME) code class piping. This, in effect, changed the intent of TS 3.4.10 without a license amendment. Following identification of this issue, Seabrook entered the issue into their corrective action program as condition report 06-03108.

This finding was addressed using traditional enforcement since it potentially impacted or impeded the regulatory process in that Seabrook used the 10 CFR 50.59 process to change the intent of an existing TS. This is contrary to the regulatory process that allows licensees to make changes without a license amendment provided that licensees comply with the 10 CFR 50.59 process. The finding is more than minor because there was a reasonable likelihood that the change would have required Commission review and approval prior to implementation. The finding is of very low safety significance because it did not require a quantitative assessment based on the shutdown risk mitigation capability of other available equipment.
Inspection Report# : 2006002*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct Degraded Component Cooling Water Flow to Safety-Related Components
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." In January 2006, the inspectors identified degraded component cooling water flow to the residual heat removal pump seal cooler and the enclosure air handling cooler. Although the flows were determined to be below design basis values, additional engineering analysis demonstrated the degraded flow would not result in inoperability of the systems. Seabrook completed immediate actions to adjust the component cooling water flow to the safety-related components. This finding was associated with the cross-cutting area of problem identification and resolution in that operators performing routine tours in the areas of the flow indicators and system engineers recording flows during quarterly walkdowns did not identify that the flow was degraded for eight months.

The finding is more than minor because it affected the Mitigating System cornerstone objective to ensure the availability, reliability, and capability of systems that respond to an initiating event. The attribute of equipment performance was impacted by the degraded component cooling water flow. The finding is determined to be of very low safety significance (Green) since it did not result in loss of safety function of the equipment and it did not impact external initiating events.
Inspection Report# : 2006002*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions Result in a Repeat Failure of the "B" EDG
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." In December of 2005, Seabrook experienced a failure of the "B" emergency diesel generator (EDG) due to a voltage excursion. Corrective actions completed in April and May of 2005, to a previous voltage excursion were ineffective in preventing the December 2005 failure. Seabrook has since taken additional corrective actions to prevent additional failures of the "B" EDG including replacement of selected components. This finding was associated with the cross-cutting area of problem identification and resolution in that Seabrook did not assure adequate corrective actions were taken to preclude repetition of the "B" EDG failure.

The finding is more than minor because it affected the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. The failure to the "B" EDG affected one of the two EDGs which maintain power following the initiating event of a loss of offsite power. The finding is determined to be of very low safety significance (Green) since the EDG was inoperable for a short period of time due to the intermittent nature of the failure.
Inspection Report# : 2006002*(pdf)*

Significance: G Jul 29, 2005

Identified By: NRC
Item Type: FIN Finding
Time Critical Operator Actions Not Included in the Safe Shutdown Analysis
The team identified a finding regarding the adequacy of the licensee's post-fire safe shutdown analysis. Specifically, the analysis was found to be incomplete in that it did not specify the time available for the implementation of safe shutdown procedure actions necessary to restore mitigating systems to operation following their loss due to a fire. These actions include timely restoration of reactor coolant system makeup, reactor coolant pump seal cooling and feedwater flow to the steam generators to ensure safe shutdown performance goals would be met during a post-fire safe shutdown. Additionally, time lines or validations had not been performed to establish the time necessary to perform time critical portions of the safe shutdown procedures.

The finding is more than minor because it is associated with the Mitigating Systems Cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events. Specifically, the safe shutdown analysis did not ensure the availability and capability of credited safe shutdown systems was sufficient to ensure post-fire performance goals would be met. The finding was found to represent a low degradation, and as such was of very low safety significance in accordance with the Fire Protection Significance Determination Process (NRC Inspection Manual Chapter 609, Appendix F). Specifically, timed walkdowns of procedures performed during the inspection indicated that, while plant parameters may not always be maintained within the safe shutdown goals, they would not deviate by an amount that would place the plant in an unrecoverable condition. The walkdown results were evaluated against estimated times available from related accident analyses, probabilistic risk assessment (PRA) studies and information from plants of similar designs.
Inspection Report# : 2005008*(pdf)*

Barrier Integrity

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions Result in Repeat Failure of a Solenoid Valve
The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." In May 2005, Seabrook experienced a failure of the "A" control room exhaust fan damper solenoid valve. Corrective actions completed in 2002 and 2003 to previous solenoid failures including the "B" control room exhaust fan damper solenoid valve in 2001 were ineffective in preventing the May 2005 failure. Seabrook has since taken corrective action to fully evaluate the extent-of-condition and to replace or evaluate susceptible solenoid valves. This finding was associated with the cross cutting area of problem identification and resolution in that Seabrook did not implement effective corrective actions to previous failures and did not properly identify the cause of the 2005 failure.

The finding is more than minor because it affected the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers are maintained including the radiological barrier function of the control room. The failure of the "A" train control room exhaust fan damper solenoid valve to close during testing impacted one of two dampers which isolates the control room. The finding is determined to be of very low safety significance (Green) since the redundant train provides the same function to isolate the control room and manual actions were also available to mitigate any control room conditions.
Inspection Report# : 2005011*(pdf)*

Emergency Preparedness

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to include Procedural Guidance for Issuing a PAR from the Control Room following Certain Postulated Events
The inspectors identified a non-cited violation associated with 10 CFR 50.54(q). For a general emergency (GE) initiated by certain postulated events, Seabrook developed a procedure that directed that a notification be made to the offsite agencies from the control room without a protective action recommendation (PAR). Seabrook has implemented corrective actions and revised this procedure, as well as, instituted a process to review non-EP procedure changes to assess their impact upon the emergency plan.

The finding is more than minor because it is associated with the EP cornerstone attributes of procedure quality and offsite EP. It impacted the cornerstone objective of ensuring that Seabrook is capable of implementing adequate measures to protect the public in that PARs would not have been readily provided to offsite agencies for an GE initiated by some postulated events. This issue was determined not to impact a planning standard function because Seabrook's emergency plan and implementing procedures adequately addressed PARs for all events. Additionally, this issue had been discussed with the appropriate offsite agencies prior to implementation of the revised procedure. Therefore, this finding is determined to be of very low safety significance (Green).
Inspection Report# : 2005011*(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : August 25, 2006