Waterford 3
1Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Excess Torque Resulting in Pressurizer Skirt Bolt Failures
A self-revealing violation of very low safety significance of Technical Specification 6.8.1.a was identified for an inadequate procedure for installing a bolted joint that provided structural support for the pressurizer. Specifically, the installation procedure required applying 8750 ft-lbs torque to make up a bolted joint. Following corrective actions, the licensee discovered that the break away torque on several bolts exceeded 13,400 ft-lbs. The improper bolt tensioning resulted in failure of 1 of 16 bolts and the partial cracking of 3 other bolts that potentially could affect the pressurizer's function in a safe shutdown earthquake event. This finding is more than minor because if left uncorrected it could have become a more safety significant concern. The finding was associated with the equipment performance attribute of the Initiating Events Cornerstone, and it affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. This finding was determined to have very low safety significance because a seismic event would not result in a loss-of-coolant accident that exceeded the Technical Specification limit for reactor coolant system leakage. Therefore, this issue screened out in Phase 1 of the MC 0609 significance determination because there was no actual loss of safety function.

Inspection Report# : 2006005 *(pdf)*

Significance: G Oct 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Maintenance Procedure for ESFAS Relay Replacement
A self-revealing noncited violation of Technical Specification 6.8.1.a was identified for an inadequate procedure that resulted in the unintentional actuation of five engineered safety features actuation system Train B relays and the loss of a 480 Vac motor control center. The 480 Vac motor control center provided power to the Train B pressurizer heaters and to the control element assembly motor generator Set B. Loss of the control element assembly motor generator increased the likelihood of a reactor trip. This finding is greater than minor because it affects the Initiating Event cornerstone objective procedure quality attribute to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. This finding was evaluated using the significance determination process and was determined to be of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. This finding had a crosscutting aspect in the area of human performance associated with resources because the licensee failed to ensure that Work Order 26998 was adequate for the task.

Inspection Report# : 2006004 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Recurring Failure of Valve SI-405B to Open
A self-revealing violation of very low safety significance (Green) of 10 CFR Part 50, Appendix B, Criterion XVI,

“Corrective Action,” was identified for the failure to implement effective corrective actions to prevent recurrence of a significant condition adverse to quality. Specifically, on multiple occasions Valve SI-405B failed to stroke open while attempting to place shutdown cooling Train B in service. This violation of Appendix B, Criterion XVI, is being treated as an noncited violation and was entered into the licensee’s corrective action program. This finding is greater than minor because it affects the the Mitigating Systems Cornerstone attribute of equipment operability, availability, and reliability of systems that respond to initiating events. This finding was evaluated using the significance determination process and was determined to be a finding of very low safety significance because, in each condition identified, it did not represent an actual loss of a safety function. The inspectors also determined that the cause of the condition had crosscutting aspects associated with the corrective action program component in the problem identification and resolution area. This assessment was based on the fact that the licensee failed to thoroughly evaluate the problem such that the resolutions addressed the causes and therefore, corrective actions were inadequate to prevent repetition.

Inspection Report# : 2006005 *(pdf)*

Significance: G Oct 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Inspection of Essential Chiller Condenser Tubing
A self-revealing noncited violation of Technical Specification 6.8.1.a was identified for failing to follow a maintenance procedure during performance of eddy current testing on the safety-related essential chiller Train A condenser tubing. The performance deficiency was the failure to perform a full length eddy current inspection of each tube with an appropriately sized eddy current probe. Subsequently, essential chiller Train A was removed from service to correct a throughwall tube leak in its condenser. This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone because the performance deficiency affected the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Using IMC 0609, “Significance Determination Process,” Appendix A, Phase 1, questions for mitigating systems, the inspectors determined that this finding was of very low safety significance (Green) because the finding was not a design or qualification deficiency, there was no loss of a safety function, and there were no other adverse impacts to the facility. This finding had a crosscutting aspect in the area of human performance associated with work practices because the licensee failed to effectively communicate expectations of procedure compliance.

Inspection Report# : 2006004 *(pdf)*

Significance: SL-IV Aug 09, 2006
Identified By: NRC
Item Type: VIO Violation
Inaccurate Performance Indicator Information
The inspector identified a violation of 10 CFR 50.9, with two examples, for the failure to provide accurate information to the NRC associated with the Safety System Unavailably High Pressure Injection and Residual Heat Removal Performance Indicators. The performance indicator information was inaccurate because the licensee improperly concluded that the Train B high pressure safety injection and Train B containment spray systems were still available during an extended period when the containment safety injection sump suction valve was partially open. The inspector found that the licensee had underestimated the size of valve (SI 602B) opening when assessing system availability and failed to address inconsistencies between their field data, diagnostic test data and their own informal calculations. Further, a second analysis performed by a contractor (to determine the as-found valve position) was inadequate, as it contained several errors and inappropriate assumptions. The licensee also provided inadequate contractor oversight with respect to this effort. The erroneous valve position determination resulted in the licensee reporting system availability information that caused the performance indicators to be Green when the High Pressure Safety Injection System Unavailability Performance Indicator should have been Red and the Residual Heat Removal System Unavailability Performance Indicator should have been Yellow. The failure to provide accurate information to the NRC in accordance with 10 CFR 50.9 requirements was a performance deficiency. The issue had more than minor significance in that, had the information been accurate, two performance indicators would have changed color. Per the NRC Enforcement Policy, Section IV.A.3, these issues are not subject to the Significance Determination Process. The Enforcement Policy, Supplement VII, specifies that a Severity Level III violation would be appropriate for these issues. However, considering: 1) the NRC’s recently implemented Mitigating Systems Performance Index program, which would have resulted in the subject performance indicators returning to the Green threshold; and 2) the risk associated with the underlying valve performance issue was of very low safety significance (Green), the NRC determined that a Severity Level IV violation was more appropriate. This finding had problem

identification and resolution crosscutting aspects, in that the implementation of the licensee's Corrective Action Program did not result in a thorough evaluation of the identified condition such that information reported to the NRC was verified to be complete and accurate.

Inspection Report# : 2006009 *(pdf)*

Significance: G Jul 07, 2006
Identified By: NRC
Item Type: VIO Violation
Untimely Actions to Reestablish Full Qualification of the Emergency Diesel Generator Starting Air System
The inspectors identified a Green violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control." In September 2003, the NRC identified that the emergency diesel generator starting air system was incapable of supplying sufficient air to start its respective emergency diesel generator a minimum of five times without being recharged. To date, the licensee has failed to take appropriate corrective actions in a timely manner to correct this deficiency and restore compliance.

This finding is greater than minor because it affected the mitigating system cornerstone objective due to the degradation of the design-basis capability of the starting air system. This finding has a crosscutting aspect in the corrective action component of the problem identification and resolution area because the licensee failed to take actions to address safety issues in a timely manner, commensurate with its safety significance and complexity. The finding was determined to be of very low safety significance because the deficiency did not represent an actual loss of the starting air system safety function per Generic Letter 91-18 guidance. Additionally, surveillance testing has demonstrated the capability of each diesel generator to start within the required 10 seconds.
Inspection Report# : 2006003 *(pdf)*

Barrier Integrity

Significance: G Feb 12, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Identify and Correct an Adverse Condition (Welds Not In Accordance With Design)
A noncited violation of Criterion XVI of Appendix B to 10 CFR Part 50 was identified for the failure to promptly identify and correct an adverse condition (i.e., steam generator batwing-to-wrapper bar welds not in accordance with design). Specifically, in May 2005, during Refueling Cycle 13, licensee personnel found that the batwing-to-wrapper bar welds were not in accordance with design drawings, but did not enter the adverse condition into the corrective action program until December 2006. This condition was entered into the corrective action program as Condition Report WF3-2006-04395. This finding was more than minor because by not promptly entering the non-conforming welds into the corrective action program and taking actions to correct the adverse condition, it became a more significant condition when two welds failed during Operating Cycle 14. Using the guidance of Appendix J to NRC Inspection Manual Chapter 0609, "Significance Determination Process," the finding is determined to have very low safety significance (Green) because there was no tube degradation that exceeded 40 percent through-wall which did not increase in the large early release frequency. This finding had a crosscutting aspect in the area of problem identification and resolution (corrective action) program component.

Inspection Report# : 2006012 *(pdf)*

Emergency Preparedness

Significance: G Dec 20, 2006
Identified By: NRC

Item Type: NCV NonCited Violation
Failure to Conduct a Required Offsite medical Drill in 2005
The inspector identified a noncited violation of 10 CFR 50.54(q) for failure to conduct during 2005 an offsite drill involving a simulated contaminated individual with provision for participation by local medical support services as required by the licensee's emergency plan. The licensee failure to conduct the drill is a performance deficiency because the licensee identified the drill's postponement in October 2005 and did not appropriately reschedule the drill. The licensee did not request NRC approval to deviate from this emergency plan requirement. This finding is greater than minor because a degraded proficiency in providing appropriate medical treatment for a contaminated individual has a potential impact on the safety of licensee employees and the public. The finding is of very low safety significance because the licensee failed to conduct only one required drill during the inspection period January 2005 through December 2006, and the drill was not appropriately rescheduled with NRC approval. This finding is a non-cited violation of 10 CFR 50.54(q) and 10 CFR 50 Appendix E, IV, F.1. The licensee has entered this issue into their corrective action system as Condition Report 2006-4429.

Inspection Report# : 2006005 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

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