Byron 1
4Q/2004 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
FAILURE TO FOLLOW CLEARANCE ORDER PROCEDURES RESULTS IN DAMAGE TO DEEP WELL PUMP DUE TO OPERATIONS WITHOUT ADEQUATE DISCHARGE PATH.
A finding of very low safety significance and an associated NCV of TS 5.4.1 regarding procedure adherence was self-revealed on July 2, 2004 when, as a result of an equipment control error, the licensee ran the Unit 0 train A (0A) deep well pump with an inadequate flow path such that it was no longer capable of performing its safety function. The licensee had since repaired the pump and placed it back into service. The primary cause of this violation was related to the cross-cutting area of Human Performance. Although procedure requirements stated that effects on components outside the clearance order boundary must be identified as acceptable or properly dispositioned, the effects of work on the 0A deep well pump discharge valve to the SX cooling tower basin were not understood. This was evidenced by the fact that the pump continued to run when the operators expected it to automatically shut off.

The finding was more than minor because the failure to follow the procedure for clearance and tagging was similar to the greater than minor examples of Section 4 of Appendix E of IMC 0612. The finding was of very low safety significance because there was no design deficiency, no actual loss off safety function, and no single train loss of safety function for greater than the TS allowed outage time. Also, there was no risk due to external events because the loss of this equipment by itself would not degrade two or more trains of a multi-train safety system function.
Inspection Report# : 2004007*(pdf)*

Significance: G Jul 09, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Faulted Pressurizer PORV Power Source Restoration Directions Inadequate
A finding of very low safety significance was identified by the inspectors for failure to have adequate procedures to achieve cold shutdown conditions within 72 hours following a fire. The inspectors found that the procedures for shutdown from outside of the control room did not provide sufficient direction to restore a faulted pressurizer power operated relief valve (PORV) power source. Once identified, the licensee initiated corrective actions to evaluate and take appropriate corrective actions to restore a faulted pressurizer PORV power source. This finding was more than minor because a deficiency in the procedures for transition to cold shutdown from outside of the control room could have delayed cold shutdown. A delay in achieving cold shutdown following a fire that required shutdown from outside of the control room could have an adverse impact on safety. The finding was of very low safety significance because the finding only involved the ability to achieve cold shutdown and did not affect the ability to achieve and maintain hot standby. This issue was a violation of the licensee's operating licenses as identified in 10 CFR Part 50, Appendix R, Section III.L.3, because the procedures for shutdown from outside of thecontrol room did not provide sufficient direction to restore a faulted pressurizer PORV power source.
Inspection Report# : 2004005*(pdf)*

Significance: G Jul 09, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Design Control of Fire Loading Calculations
The inspectors identified that permanent fire loading added during a modification to install a work station for Radiation Protection personnel at Byron Station Unit 2 Auxiliary Building EL. 401', was not added to the total fire loading for the fire zone. The design change process considered fire loading less than 1000 BTUs/sq. ft. to be negligible, creating the potential to lose track of the cumulative fire loading for a given fire zone. The failure to revise the fire loading calculation to account for additional permanent fire loading in a fire zone is a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control." The licensee's Quality Assurance Manual states that Quality Assurance design control requirements are applicable to fire protection. The licensee initiated a corrective action to ensure that the design control processes would account for all increases in permanent fire loading. The finding was greater than minor because if left uncorrected, it would become a more significant safety concern as it could affect the ability of systems designed to cope with a fire in a given fire zone, if the cumulative fire loading exceeded allowable values. The finding was of very low safety significance because the heat load added by this

modification did not exceed the allowance for the area.
Inspection Report# : 2004005*(pdf)*

Significance: G Jul 09, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Install Fire Detector in Accordance With NFPA 72E
The inspectors identified the lack of a smoke detector on the ceiling of the Auxiliary Building 426' general area, Fire Zone 11.6-0, in the beam pocket north of beam 7AB253, located outside of the Radwaste Evaporator Rooms. The failure to have adequate detector placement in this area is a Non-Cited Violation of the Byron operating license, which required detectors to be installed in accordance with National Fire Protection Association (NFPA) standard 72-E. The licensee initiated a corrective action to install adequate detection in the area. The finding was greater than minor because it affected the mitigating systems cornerstone attribute of protection against external factors (fire). As a result of the inadequate detector placement, detection of a fire north of beam 7AB253 could be delayed. The finding was of very low safety significance because of the low fire ignition frequency in this location.
Inspection Report# : 2004005*(pdf)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO IDENTIFY SEVERAL SITUATIONS OF SCAFFOLDS NOT MEETING THE SEISMIC CLEARANCE SPECIFICATIONS.
The inspectors identified a Non-Cited Violation of 10 CFR 50 Appendix B, Criterion XVI, Corrective Actions, having very low safety significance for failing to identify several instances of improperly installed scaffolding, which was considered a condition adverse to quality. These improperly installed scaffolds were identified by the inspectors during plant tours on March 16, March 19, March 28, April 6, and April 7 of 2004. In each case, after being brought to their attention, the licensee took actions to correct the improperly installed scaffolding. The cross-cutting area of Human Performance was affected because the licensee personnel failed to install scaffolding in accordance with the licensee's procedure. The cross-cutting area of Problem Identification and Resolution was affected because the deficiencies were not identified during the scaffolding inspections nor were these deficiencies identified by other members of the licensee's staff. Moreover, even after the inspectors' initial identification of improperly installed scaffolding, the licensee's extent of condition review was inadequate as evidenced by the additional deficiencies later identified by the inspectors.

The issue was more than minor because the licensee failed to perform engineering evaluations on scaffold that potentially impacted safety-related systems. The issue was similar to more than minor example 4.a of Appendix E of IMC 0612. The inspectors determined that the finding could not be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process." Therefore, this finding was reviewed by the Regional Branch Chief in accordance with IMC 0612, Section 05.04c, and determined to be of very low safety significance (Green) because in no case was the improperly installed scaffolding determined to adversely impact the operability of safety-related equipment. The issue was a Non-Cited Violation of Criterion XVI of 10 CFR 50 Appendix B.
Inspection Report# : 2004004*(pdf)*

Barrier Integrity

Significance: G Dec 31, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
TECHNICAL SPECIFICATION 3.6.6 VIOLATION FOR INOPERABLE REACTOR CONTAINMENT FAN COOLERS DUE TO LOW ESSENTIAL SERVICE WATER FLOW
A finding of very low safety significance was self-revealed when the licensee recognized that essential service water (SX) flows to the 1A, 1B and 1C reactor containment fan coolers (RCFCs) were less than the Technical Specification required value due to incorrectly adjusting the SX flows to the RCFCs 4 months earlier. Upon recognizing the condition, the licensee adjusted flows back within the required values. The primary cause of this finding was related to the cross cutting area of Problem Identification and Resolution. Specifically, while the operators were performing the flow balance of SX to the Unit 1 RCFCs they failed to recognize that the local indicators were not responding as expected during significance adjustments to the associated throttle valves.

This finding was greater than minor because it was associated with the containment barrier integrity cornerstone attribute of risk important systems function and affected the cornerstone objective of providing reasonable assurance that the physical containment barrier would protect the public from radio nuclide releases caused by accidents or events. The finding was of very low safety significance because it did not affect the core damage frequency, and inoperability of a RCFC did not have an effect on the large early release frequency for a pressurized water reactor with a large dry containment. This issue was a NCV of Technical Specification 3.6.6 because the duration of the low flow condition to the RCFC exceeded the specified allowable outage time.
Inspection Report# : 2004009*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : March 09, 2005