Braidwood 1
3Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: FIN Finding
POOR CONTROL OF COMBUSTIBLE MATERIAL AND TEMPORARY POWER SOURCES
A finding of very low safety significance was identified after the inspectors observed numerous fire hazards (i.e., poor control of combustible material and temporary power sources) during a walkdown of several non-safety related, abandoned buildings located inside the Protected Area. These conditions increased the potential for a loss of offsite power from an external fire, due to the proximity of the buildings to overhead 345 kV transmission lines and the Unit 2 safety related system auxiliary transformers. The primary cause of this finding was related to the cross cutting area of Human Performance (organization), because of the failure of licensee staff to follow station procedures for proper storage of transient combustible materials and use of temporary power sources. This finding was considered more than minor, because of the potential for a loss of offsite power due to an external fire. This issue also affected the Mitigating Systems cornerstone objective to ensure that external factors (i.e., fire, flood, etc) do not impact the availability, reliability and capability of systems that respond to initiating events in order to prevent core damage. The finding was of very low safety significance because there was a reasonable potential for the licensee to identify and respond to a fire; additionally, if offsite power were lost, both Unit 2 emergency diesel generators were available and licensee control room staff were routinely trained in existing station procedures for addressing this event. No violation of NRC requirements occurred.
Inspection Report# : 2005002*(pdf)*

Significance: G Dec 31, 2004
Identified By: Self-Revealing
Item Type: FIN Finding
INCREASED PROBABILITY OF A REACTOR TRIP DUE TO POOR MAINTENANCE THAT CAUSED AN ELECTRO-HYDRAULIC LEAK ON THE 1C TURBINE DRIVEN FEEDWATER PUMP
A finding of very low safety significance was identified through a self-revealing event when the main control room received low level alarms for the Unit 1 electro-hydraulic fluid reservoir during the return-to-service of the 1C turbine-driven feedwater pump. The primary cause of this event was related to the cross-cutting area of Human Performance. Licensee maintenance staff had improperly installed a servo valve on the 1C pump resulting in the electro-hydraulic fluid leak during the subsequent pump start. The same staff had also improperly installed a cover plate over the servo valve, preventing station operators from identifying the leak during post-maintenance testing. This finding was considered more than minor, because it increased the likelihood of a reactor transient. Specifically, the loss of electro-hydraulic fluid could have led to a turbine trip followed by a reactor trip, as both the 1B and C feedwater pumps and the main turbine share a common reservoir. This finding was of very low safety significance because of the short exposure time and the fact that the 1A motor driven feedwater pump was running and therefore available as a mitigating component.
Inspection Report# : 2004008*(pdf)*

Mitigating Systems

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
LACK OF A BOUNDING VOLTAGE DROP CALCULATION DURING AN SI
A finding of very low safety significance was identified by the inspectors associated with a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," where the licensee had no design basis calculation supporting adequate voltage levels for safety related equipment during a safety injection (SI). Voltage drop during an SI transient can be large and could result in operation of required safety-related equipment outside its design basis. After identification by the team, the licensee was able to demonstrate adequate voltage to support the operation of safety related equipment during this bounding voltage transient scenario. This finding was more than minor because if left uncorrected, the finding would become more significant. Modifications to the electrical distribution system can adversely affect the voltage for safety related equipment. Without a bounding voltage drop analysis to support the reliable operation of safety related equipment during an SI, these effects would go unnoticed causing adverse conditions during an actual SI with off-site power available. This finding was of very low safety significance because it screened out using the Phase 1 worksheet.
Inspection Report# : 2005007*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
EDG SX CROSS-CONNECT NOT SUPPORTED BY DESIGN BASIS
A finding of very low safety significance associated with a 10 CFR Part 50, Appendix B, Criterion III, "Design Control" was identified by the inspectors. The finding involved the operation of the emergency diesel generator jacket water coolers in a cross-connected configuration that was not supported by the plant's license and design basis. The licensee is evaluating the procedure for possible revision. This finding was more than minor because the licensee's established design and license basis for these coolers required a higher level of flow than that actually observed in the coolers during this cross-connected operation. The licensee had inappropriately relied on a manual operator action to justify operation in this configuration. This condition, if left uncorrected, would become more significant. This finding was of very low safety significance because it screened out using the Phase 1 worksheet.
Inspection Report# : 2005007*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO LEAK TEST BURIED SX INTAKE HEADER PIPING
The inspectors identified a finding involving a Non-Cited Violation (NCV) violation of 10 CFR Part 50.55a(g)4 having very low safety significance for failure to perform periodic leakage testing required by the American Society of Mechanical Engineers Code on the buried portions of the essential service water (SX) system intake piping. This finding was more than minor because failure to perform periodic leakage testing could have allowed undetected through-wall flaws to remain inservice. These undetected flaws could grow in size until leakage from the buried SX intake pipe degrades system operation or if sufficient general corrosion occurs, a gross rupture or collapse of the SX piping sections could occur. The finding was of very low safety significance because the licensee concluded that the piping systems were currently operable based upon pump surveillance testing which measured adequate SX system flow. The licensee also documented that piping failure was not anticipated due to the external pipe coating, cathodic protection and low system operating pressure.
Inspection Report# : 2005007*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
NON-CONSERVATIVE CST INVENTORY CALCULATION
A finding of very low safety significance was identified by the inspectors associated with a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control" where the licensee failed to maintain an accurate design basis for the condensate storage tank (CST) useable inventory. The team identified an additional depletion path of CST water, the makeup valve (1(2)CD0035) from the CST to the condenser hotwell, that was not accounted for in the plant's calculation for useable CST volume. This finding was more than minor because it was associated with and affected the Mitigating Systems Cornerstone. Specifically, the capacity of the water source for the auxiliary feedwater (AFW) system was adversely affected by this additional depletion path. This finding was of very low safety significance because it screened out using the Phase 1 worksheet.
Inspection Report# : 2005007*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: FIN Finding
FAILURE TO PROVIDE PROCEDURE FOR RECOVERY OF POLUGGED SX STRAINER
The inspectors identified a finding of very low risk significance for failure to provide operators with equipment, procedures and training to manually operate the essential service water (SX) strainers to recover the loss of automatic backwash capability. Specifically, the loss of automatic strainer backwash function following a seismic event would lead to SX strainer plugging and without adequate recovery procedures, the loss of SX system flow. This finding did not constitute a violation of NRC requirements because the strainers (aside from the pressure boundary) and associated backwash equipment were not considered safety-related. The inspectors determined that this finding was of more than minor significance because it would become a more significant safety concern if left uncorrected. Specifically, the failure to provide equipment, procedures and training for manually backwashing the SX strainers could result in loss of cooling to safety-related equipment cooled by SX following a seismic event. An NRC Regional III Senior Reactor Analyst (SRA) performed a qualitative Phase 3 risk evaluation and determined that the initiating event frequency of a seismic event was low. In performing this evaluation, the SRA considered the lack of data to support how long it would take to plug the strainers with sediment or debris and given that strainer plugging may take days, there was a high likelihood that recovery of the backwash function would occur. Although there were no plant procedures, the licensee had access to vendor documents which provided adequate instructions for the manual backwash operation, and the loss of off-site power operating procedure included actions to restore power to the 480 volt motor control center which supplied power to the SX strainer backwash motors and isolation valves. Based on these facts, the SRA determined that the finding was of very low safety significance. The licensee entered this deficiency into their corrective action program for resolution.
Inspection Report# : 2005007*(pdf)*

Barrier Integrity

Significance: G Dec 31, 2004
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
FAILURE TO FOLLOW LICENSEE PROCEDURES DURING UNIT 1 CORE RELOAD
A finding of very low safety significance was identified through a self-revealing event when, during the Unit 1 core reload, the licensee inadvertently bumped two fuel assemblies together. The primary cause of this event was related to the cross-cutting area of Human Performance; specifically, that the licensee staff failed to follow the applicable procedures controlling fuel movement. This finding was considered more than minor, because it challenged the integrity of the fuel cladding barrier. This finding was considered of very low safety significance as it only affected the fuel cladding barrier. Because of the failure to follow station procedures, the finding was considered a Non-Cited Violation of Technical Specification 5.4.
Inspection Report# : 2004008*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : November 30, 2005