North Anna 1
4Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Implementation of a Non-quality Procedure Results in Reactor Trips
A self-revealing finding was identified for inadequate implementation of a non-quality procedure associated with the equipment reliability process. This led to a 'run-to-failure' classification for two different 7300 System cards which each resulted in a reactor trip on Unit 1 and 2.

This self-revealing finding is greater than minor because it resulted in a perturbation in plant stability by causing a reactor trip. The finding was of very low safety significance because, although it caused a reactor trip, it did not increase the likelihood of a primary or secondary system loss of coolant accident initiator, did not contribute to a combination of a reactor trip and loss of mitigation equipment functions, and did not increase the likelihood of a fire or internal/external flood. The licensee entered the problem involving Units 1 and 2 into their corrective action program. This finding involves the safety-significant and risk significant decisions aspect of the human performance cross-cutting area because the licensee incorrectly determined that operators had sufficient time to take necessary actions to preclude a plant trip when the cards failed (IMC 305 H.1(a)).
Inspection Report# : 2007002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Implement Procedure for Installation of Containment Sump Modification
A Green, non-cited violation of Title 10 Code of Federal Regulations Part 50, Appendix B, Criterion V, was identified by the NRC for failure to adequately accomplish a procedure for installation of the Unit 1 containment sump strainer modification. On October 11, 2007, the inspectors performed a walkdown of the containment sump strainer just prior to Mode 4 and identified openings or gaps between module 'B9' and 'B8' which exceeded the allowable tolerance. The licensee had recently completed their operational readiness reviews of a modification to the sump strainer. The licensee's inspection of other modules revealed only minor problems which were corrected. The problem is identified in the licensee's corrective action program as condition report 022264.

The finding was more than minor due to the impact on the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and the related attribute of human performance. The finding was of very low safety significance (Green) because the problem was identified while in Mode 5, the mode in which the safety function was not required. The cause of this finding is related to the aspect of procedural compliance of the work practices' component in the cross-cutting area of human performance (H.4.b) because personnel failure to follow modification installation procedures.
Inspection Report# : 2007005 *(pdf)*

Significance: G Sep 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Required ASME Code Section XI Leakage Testing

The inspectors identified a non-cited violation of 10 CFR 50.55a(g)(4) associated with failure to perform testing of buried, isolable piping for the charging, safety injection, recirculation spray, quench spray, auxiliary feedwater, and service water systems in accordance with the American Society of Mechanical Engineers Code Section XI requirements. The licensee promptly entered the issue into their corrective action program. In response to NRC questions, the licensee performed an evaluation to demonstrate the piping condition was acceptable.

This finding is more than minor because it affected the Equipment Performance attribute of the Mitigating Systems cornerstone objective, and would have allowed undetected through-wall flaws to develop in the header piping. These flaws would then grow in size until leakage from the buried headers degraded system operation, or if sufficient general corrosion occurred, a gross rupture or collapse of the piping occurs. The finding is of very low safety significance because the affected systems remained able to perform their safety functions and it did not affect external event mitigation. The cause of the violation is related to the complete documentation and component labeling aspect of the cross-cutting area of human performance, in that, procedures failed to include required testing (H.2(c)).
Inspection Report# : 2007004 *(pdf)*

Significance: G Aug 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Ensure Adequate Control and Storage of Safety-Related EDG Parts
A non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XIII, Handling, Storage and Shipping, was identified by the NRC. Specifically, the licensee failed to ensure adequate controls for the storage and preservation of safety-related material and equipment in accordance with plant instructions. Emergency diesel generator (EDG) parts were stored in an uncontrolled, unmonitored, and environmentally unregulated storage container on an open pad outside the Protected Area, but within the Owner Controlled Area.

The failure to ensure adequate controls were in place to store safety-related EDG parts was considered a performance deficiency. The finding was considered more than minor because if left uncorrected, it would become a more significant safety concern because of the possible use of these parts in safety-related equipment. The finding was determined to be of very low safety significance because it did not represent an actual malfunction or inoperability of an EDG system or component. This finding has a cross-cutting aspect of safety or risk-significant decision making in the area of human performance because the organization knowledgeable of quality assurance storage requirements was not included in the decision for the relocation of the storage container (H.1(a)).

Inspection Report# : 2007008 *(pdf)*

Significance: G Mar 15, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedures Result in Failure of a Backflow Preventer for Internal Flood Protection
Inadequate Procedures Result in Failure of a Backflow Preventer for Internal Flood Protection

A Green, non-cited violation of Technical Specification 5.4.1.a was identified by the NRC for failure to establish adequate post maintenance test procedures for a design change modification installing new backflow preventers (BFP) and for model work orders replacing BFPs as preventative maintenance. On March 15, 2007, the inspectors performed a plant walkdown to review installation of BFPs used for internal flood prevention for flow paths involving floor drains and identified an inoperable BFP in the Unit 1 emergency switchgear area air conditioning fan room. The problem is identified in the licensee's corrective action program as Condition Report CR008734.

The inspectors determined that the finding had a credible impact on safety based on the potential for flooding to impact the instrument rack room which contains both trains of Solid State Protection System cabinets used for engineered safeguards. The finding, if left uncorrected, would result in a more significant safety concern and is consequently more than minor. A Phase III evaluation was performed for the SDP due to the loss or degradation of equipment specifically designed to mitigate a flooding event and the impact on two trains of a safety system. This evaluation concluded that the performance deficiency was of very low safety significance (Green) based on the existence of high level alarms for the associated sumps and the response time allowed for an operator to isolate the leak (approximately 40 minutes). This finding had aspects relating to the cross-cutting area of human performance

based on the failure to establish adequate modification and maintenance procedures for post maintenance test to perform work on a quality-related component (IMC 305 H.2(c)).
Inspection Report# : 2007003 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : February 04, 2008