North Anna 1
1Q/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.
Inspection Report# : 2007002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify Unsatisfactory Performance of a Fire Brigade Crew
The inspectors identified a Green, non-cited violation of the Fire Protection Program because the licensee's assessment of a fire brigade drill was inadequate. Fire brigade performance was not accurately critiqued to identify deficiencies requiring corrective action. The licensee entered this problem into their corrective action program for appropriate action.

his finding is more than minor because it had a high negative impact or degradation on the ability of the fire brigade to effectively carry out its manual fire fighting control and suppression function. This finding was of very low safety significance because the observed crew was only one of four crews of the site fire brigade team, and that the overall condition of the fire detection and suppression systems had been satisfactory. The cause of the finding is related to the cross-cutting area of problem identification and resolution.
Inspection Report# : 2006005 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Procedure Results in Failure of Control Room Chiller
A Green, self-revealing, non-cited violation of Technical Specification 5.4.1.a was identified for inadequate maintenance work which resulted in the failure of a control room chiller on October 12, 2006. The licensee initiated action to evaluate the problem, perform an extent of condition review, and determine the appropriate corrective actions.

This finding is 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 its attribute of procedure quality. The finding is of very low safety significance because it did not result in a loss of operability due to a design or qualification deficiency, did not represent an actual loss of safety function, and was not potentially risk significant due to possible external events. The cause of this finding involved the cross-cutting area of human performance.
Inspection Report# : 2006005 *(pdf)*

Significance:  Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Tornado Missile Protection for the AFW System
A non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III was identified by the NRC on July 10, 2006, for the failure to adequately protect auxiliary feedwater (AFW) components from tornado generated missiles. The licensee installed a modification to protect some of the identified components and is planning to modify their design basis to address the remaining components.

The failure to assure adequate tornado missile protection had a credible impact on reactor safety because of the exposure of all three trains or subsystems of the AFW system to tornado induced damage. The finding is more than minor due to its impact on the Mitigating System cornerstone and the related attribute of design control. A phase III evaluation concluded that the finding was of very low safety significance given that the facility is located in a part of the country with a low incidence of tornados, i.e., the initiating event frequency for a tornado is low, and systems other than AFW are available to help mitigate the event.
Inspection Report# : 2006004 *(pdf)*

Significance:  Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Corrective Action Results in Failure of Control Room Chiller to Start
A self-revealing non-cited violation of 10 CFR 50 Appendix B Criterion XVI was identified for inadequate corrective action which resulted in an inoperable control room chiller. On May 16, 2006, the chiller failed to start due to a faulty chilled water flow switch. Previously, a work order was initiated as part of a corrective action document to replace the flow switch due to aging. However, the work order was completed without performing the switch replacement. The licensee documented this failure in their corrective action program.

The finding is 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 its attribute of procedure quality. The finding is of very low safety significance because it did not result in a loss of safety function of one or more trains and was not potentially risk-significant due to possible external events. The cause of this finding involved the problem identification and resolution cross-cutting area based on the failure of the work order to complete the actions of a corrective action document.
Inspection Report# : 2006003 *(pdf)*

Significance:  Jun 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Implement a Maintenance Procedure Impacting Pressurizer PORV Operability
The inspectors identified a non-cited violation of Technical Specification (TS) 5.4.1a associated with the licensee's failure to correctly implement a maintenance procedure which resulted in a failure of a Unit 1 pressurizer power operated relief valve (PORV) on March 31, 2006. The inspectors' review of the root cause evaluation in conjunction with the associated work order and interview with plant personnel resulted in the conclusion that a critical cause of the degraded PORV was a failure to correctly implement the maintenance procedure by installing AC voltage versus the required DC voltage solenoid operated valves in the PORV control system. The licensee entered this problem into their corrective action program.

This finding is 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

its attribute of procedure quality. The finding is of very low safety significance because it did not result in a loss of safety function of one or more trains and was not potentially risk-significant due to possible external events. This finding involved the human performance cross-cutting area based on the failure to implement a procedure correctly.
Inspection Report# : 2006003 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

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