North Anna 2
1Q/2009 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Accomplish Procedures Renders Both Trains of High Head Safety Injection System Inoperable
Green. A Green NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the NRC for multiple examples of a failure to accomplish a procedure for activities affecting quality which simultaneously rendered both trains of high head safety injection (HHSI) inoperable. The licensee entered this issue into their corrective action program (CAP) as CR114725.

This finding had a credible impact on safety because both trains of the HHSI were rendered inoperable, and manual operator action was required to place at least one train in service. The inspectors determined the finding was more than minor because it impacted 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 which involved the failure to adequately accomplish procedures. The inspectors evaluated the finding using the SDP and determined that a Phase III evaluation was required. A regional Senior Reactor Analyst performed a Phase 3 evaluation under the SDP. The performance deficiency was determined to be of very low safety significance (Green). The evaluation was accomplished using the NRC's probabilistic risk assessment computer model of the plant with Emergency Diesel Generator 1J and the Boron Injection Tank's inlet motor operated valve 1867A set to always fail. The model was quantified, assuming the configuration lasted for nine hours. The dominant accident sequences were Losses of Offsite Power as the initiating event followed by the failure through various mechanisms of the 1H emergency diesel generator and the Alternate Alternating Current Diesel Generator. Also, neither the failed Emergency Diesel Generators nor offsite power was recovered prior to core damage. The key assumptions were that Unit 2 was constructed similar enough that the Unit 1 probabilistic risk assessment model could be used and the duration of the configuration was nine hours.

This finding involved the cross-cutting area of human performance, the component of decision-making and the aspect of safety-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained, because the personnel performing quality related activities involving 2-SI-MOV-2867A failed to make adequate decisions affecting nuclear safety while performing procedures (H.1.a).
Inspection Report# : 2009002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Reactor Coolant Pump Motor Oil Collection System Installation and Design Problems
The finding was more than minor because it impacted 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 protection against external factors such as fire which could impact the operability of a reactor coolant pump (RCP). This finding had a credible impact on safety because the inadequate installation and fabrication of the oil collection system presented a degradation of a fire confinement component which has a fire prevention function of not allowing an oil leak to reach hot surfaces. The finding was of very low

safety significance or Green because of the low degradation rating of the fire confinement category related to the reactor coolant pump (RCP) motor oil collection system, the extremely low frequency of RCP oil leaks and no actual RCP oil leaks during the past operating cycle, and other area fire protection defense-in-depth features such as automatic fire detection, manual suppression capability (fire brigade), and safe shutdown capability from the main control room. There was no cross-cutting aspect due to the legacy aspect relating to both examples.
Inspection Report# : 2008005 *(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

Significance: SL-IV Sep 30, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Complete and Accurate Medical Information to the NRC Which Impacted a Licensing Decision
The inspectors determined that the licensee's failure to provide complete and accurate information to the NRC, which resulted in an incorrect licensing action, is a performance deficiency because the licensee is expected to comply with 10 CFR 50.9 and it was within the licensee's ability to foresee and prevent. Because a violation of 10 CFR 50.9 is considered to be a violation that can potentially impede or impact the regulatory process, the violation was dispositioned using the traditional enforcement process. The finding was more than minor because information was provided to the NRC signed under oath by the Site Vice President and erroneously impacted an NRC licensing decision. There was no evidence that the operator endangered plant operations as a result of the pre-existing medical condition while performing licensed duties since the original license was issued on July 24, 2006. Inspectors determined that this issue did not meet the criteria for assignment of a cross-cutting aspect.

Inspection Report# : 2008004 *(pdf)*