North Anna 1
1Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2013
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Follow Work Instructions for the Replacement of Protective Relays Causes a Unit 1 Reactor Trip Due to Loss of Station Service Bus Transformer After Start of 1C Condensate Pump
A Green, self-revealing finding was identified for failure to follow procedure for the replacement of protective relays that resulted in a Unit 1 trip. Specifically, the instructions in work order (WO) 59102618778 stated to “Have Control Ops install shorting screws for CT circuit,” and “Have Control Ops remove shorting screws for CT circuit.” Maintenance personnel failed to remove the current transformer terminal block shorting screws installed inside the 1C switchgear breaker 15C2 cubicle and caused the turbine to trip and the reactor to trip from the loss of the 1C station service transformer after the start of the ‘C’ condensate pump. This was entered into the licensee’s CAP as CR528984.

The inspectors determined that the licensee’s failure to follow work instructions in WO59102618778 which stated to “Have Control Ops install shorting screws for CT circuit,” and “Have Control Ops remove shorting screws for CT circuit” for the replacement of protective relays was a performance deficiency. The performance deficiency was more than minor because it was associated with the Initiating Events cornerstone attribute of equipment performance and adversely affected the associated cornerstone objective in that maintenance personnel left the current transformer terminal block shorting screws installed inside the 1C switchgear breaker cubicle which caused the turbine trip and subsequent reactor trip from the loss of the 1C station service transformer after the start of the ‘C’ condensate pump. Using Inspection Manual Chapter 0609, Attachment 4, Initial Characterization of Findings, issued June 19, 2012, the finding was determined to be of very low safety significance (Green) because it was a transient initiator, but did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. In addition, this finding involved the cross cutting area of human performance, the component of resources, and the aspect of complete, accurate, and an up-to-date work instructions, H.2(c), because the work order job steps did not contain adequate means for documenting the installation and removal of shorting screws, which resulted in a loss of configuration control for the 1C switchgear 15C2 breaker cubicle. (Section 4OA2.4)
Inspection Report# : 2013005 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2014
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to mark a foreign material exclusion closure devise results in non-funcionality of the alternate AC diesel
A self-revealing finding was identified for the licensee’s failure to mark a foreign material exclusion (FME) closure device, as required by licensee procedure MA-AA-102, "Foreign Material Exclusion," Revision 14. This resulted in

the non-functionality of the alternate AC (AAC) diesel.

The inspectors reviewed the issue of concern in accordance with IMC 0612, Appendix B, "Issue Screening." The inspectors determined that the licensee's failure to mark the #4 lifter side cover as an FME closure device as required by licensee procedure MA-AA-102 was a performance deficiency (PD). The PD is more than minor, and therefore a finding, because it adversely affected 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 equipment performance. Specifically, the resultant improper installation of the #4 lifter side cover caused the non-functionality of the AAC diesel. The inspectors evaluated the finding using IMC 0609, Appendix A, "The Significance Determination Process For Findings At-Power", issued June 19, 2012, and determined that Exhibit 2, "Mitigating Systems Screening Question" was applicable since the AAC diesel is a mitigating system component. The inspectors determined that a Detailed Risk Evaluation was required because the finding represented an actual loss of function of one or more non-Technical Specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hrs. A detailed risk evaluation of the PD was performed by a regional senior reactor analyst (SRA) using the guidance of NRC Inspection Manual Chapter (IMC) 0609 Appendix A, and the latest NRC North Anna SPAR model. The resultant increase in core damage frequency from the PD was <1E-6/year, a GREEN finding of very low safety significance. In addition, this finding involved the cross-cutting area of Human Performance and the aspect of Avoid Complacency, H.12, because the licensee failed to recognize and plan for the possibility of mistakes caused by not labeling the FME closure device during the AAC diesel maintenance. (Section 1R19)

Inspection Report# : 2014002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports

may be viewed.

Miscellaneous

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