Turkey Point 3
3Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Mar 07, 2014
Identified By: NRC
Item Type: FIN Finding
Failure to Properly Program the Turbine Generator Digital Control System Load Drop Anticipatory Circuit Results in a Manual Reactor Trip
A self-revealing green finding was identified for the failure to establish new digital software set points for the load drop anticipatory (LDA) logic circuit associated with an extended power uprate (EPU) digital turbine electro-hydraulic control (EHC) system design modification. Specifically, the software for the LDA logic circuit was programmed to reset at a value that would not be reached during a normal reactor plant shutdown before the turbine control system sensed a loss of load condition and closed the turbine control valves. As a result, during a planned Unit 3 reactor plant shutdown, the LDA control logic unexpectedly closed the turbine control valves at 25 percent reactor power. The operators then manually tripped the unit based on the indication of loss of turbine load in the control room. Licensee Unit 3 software engineering change (EC) package 246849 change request notice (CRN) 253 Attachment 5, “Turbine Control Initial Values,” instructed the programmer to set the LDA disarm value to 50 percent turbine load. Contrary to this instruction, the programmer set the disarm value to 50 pounds per square inch gauge (psig) steam pressure. The failure of the programmer to establish the proper set point value in the LDA reset logic was a performance deficiency.

The performance deficiency was more than minor because it was associated with the equipment reliability attribute of the initiating events cornerstone and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding was determined to be of very low safety significance (Green) based on Exhibit 1, “Initiating Events Screening Questions,” found in Inspection Manual Chapter 0609, Significance Determination Process, Appendix A, “Significance Determination Process for Findings At-Power” (dated June 19, 2012). This was due to the fact that the finding did not result in a loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors determined the cause of this finding was associated with a cross cutting aspect of procedure adherence. Specifically, the licensee set the turbine control valve LDA reset point to 50 psig instead of 50 percent turbine load as prescribed in EC 246849. (H.8) (Section 4OA3.1)
Inspection Report# : 2014008 *(pdf)*

Mitigating Systems

Significance: G Aug 20, 2014
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Identify and Correct Unsealed Condulet to Prevent Water Intrusion
A self-revealing, non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” was identified for the licensee’s failure to implement corrective actions to prevent water intrusion into electrical conduits

that affected safety related equipment. Specifically, the licensee failed to establish corrective actions to prevent water intrusion into the power supply for the Unit 3 B train (3B) pressurizer back-up heaters. After discovery of the condition, the licensee completed immediate corrective actions to apply waterproofing sealant to an unsealed condulet elbow that was the source of the pressurizer back-up heater water intrusion. The licensee entered this issue into their corrective action program as ARs 1985831 and 1986395.

This finding was more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and adversely affected its objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to implement corrective actions to prevent water intrusion events which resulted in the inoperability of 3B pressurizer back-up heaters. The inspectors evaluated the significance of the finding under the mitigating systems cornerstone using Table 2 of Attachment 4 (dated June 19, 2012) and Exhibits 2 and 4 of Appendix A (dated June 19, 2012) to Inspection Manual Chapter 0609, “Significance Determination Process,” (dated June 2, 2011). The inspectors determined the finding was of very low safety significance (i.e., Green) because the exhibit criteria did not screen to a detailed risk assessment. A cross-cutting aspect was not identified because this performance deficiency occurred in 2007 and there have been no recent opportunities for the licensee to apply current processes and procedures for this issue. Therefore, the inspectors concluded that the performance deficiency was not indicative of current licensee performance.
Inspection Report# : 2014004 *(pdf)*

Significance: G Mar 31, 2014
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
TS Channel Calibration of ESF Steam Line Protection Channel III Not Performed
A Green self-revealing non-cited violation (NCV) of TS Section 3.3.2, “Engineered Safety Features Actuation Instrumentation,” (ESF) was identified when the licensee failed to perform the channel calibration of Unit 3 ESF steam pressure protection channel III within the required 18-month frequency which resulted in operation with steam generator pressure transmitter PT-3-495 inoperable for approximately 10 months. This issue was placed in the licensee’s CAP as AR 1938191. Corrective actions included replacing PT-3-495, performing an extent of condition on all other work orders completed during the extended power uprate (EPU) outage to ensure TS compliance, and revising the surveillance tracking program procedure to require verification that the required surveillance testing is completed prior to crediting non-dedicated work orders.

The performance deficiency was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to perform the channel calibration surveillance test procedure for transmitter PT-3-495 within the 18-month required frequency resulted in 10 months of channel inoperability. The finding was screened using Exhibit 1, Mitigating Systems Screening Questions, found in Inspection Manual Chapter 0609, Significance Determination Process, Appendix A, Significance Determination Process for Findings At-Power (June 19, 2012). The inspectors determined the finding was of very low safety significance (Green) because the finding did not affect design or qualification, did not represent a loss of system function, and did not represent an actual loss of function of a technical specification train of equipment. The finding was associated with a cross-cutting aspect in the work management component of the human performance area because the licensee failed to implement their process for planning, controlling, and executing required surveillance tests (H.5). (Section 4OA2.3)
Inspection Report# : 2014002 *(pdf)*

Significance: G Feb 28, 2014
Identified By: NRC

Item Type: NCV NonCited Violation
Failure to Properly Implement Time Critical Operator Action Program Procedure
The team identified a green non-cited violation of Technical Specification 6.8.1, “Procedures and Programs,” for the licensee’s failure to implement procedure 0-ADM-232, Time Critical Action Program, to ensure time critical actions (TCAs) important to mitigate design basis events could be performed in the required time. The failure to implement this procedure was a performance deficiency. No documentation existed to demonstrate that the TCA to restore power to the battery chargers during a station blackout could be performed within the required time (30 minutes). The team also identified a TCA to locally isolate the auxiliary feedwater for a faulted steam generator that did not have a job performance measure to demonstrate the successful completion of the action. The licensee entered this issue into the corrective action program as action requests 01944453, 01945532, 01943321, 01943425, and 01943697. For TCAs where no validation documentation could be determined, the licensee completed tabletop exercises, simulator exercises, and field walkdowns to ensure that all of the TCAs to mitigate design basis events could be completed within the required action times.

The performance deficiency was determined to be more than minor because it was associated with the Human Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee did not implement 0-ADM-232 adequately to ensure that the TCAs listed in Attachment 1 of the procedure were properly validated; consequently, the licensee could not demonstrate that TCAs could be successfully executed in accordance with the design basis. The team determined the finding to be of very low safety significance (Green) because the finding was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; and did not represent a loss of system and/or function. The team determined this finding was associated with the cross-cutting aspect of Procedure Adherence in the area of Human Performance because although the procedure was recently revised to include all necessary requirements to maintain the time critical action program, the licensee failed to follow procedure 0-ADM-232, which resulted in several TCAs not being properly validated. [H.8] (Section 1R21.2)
Inspection Report# : 2014007 *(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

Last modified : November 26, 2014