

South Texas 1

4Q/2007 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Oct 11, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedure Leads to Inoperable Turbine-Driven AFW Pump for Longer than TSs Allowed Outage Time

The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," for an inadequate surveillance test procedure on the turbine-driven auxiliary feedwater pump, due to inadequate acceptance criteria for the trip hook and the latch-up lever and the impact distance. As a result, on December 12, 2006, auxiliary feedwater Pump 14 failed to reach rated speed and tripped.

The inspectors determined that the issue was more than minor because it affected the mitigating systems cornerstone attributes of equipment performance and procedure quality, and it affected the cornerstone objective to ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the violation using the significance determination process and determined that it required a Phase 2 analysis. The Phase 2 analysis screened as White and the resultant Phase 3 SPAR model result was an incremental conditional core damage probability of 3E-07. The licensee's Phase 3 analysis gives recovery credit for manual operator action to locally start the turbine-driven pump and resulted in a probability of 3.3E-07, or very low safety significance. This issue had problem identification and resolution crosscutting aspects in that the licensee did not implement and institutionalize operating experience through changes to procedures and training programs [P.2(b)]. The licensee failed to fully evaluate specific operating experience to conclude that the maintenance, surveillance, and operating procedures were inadequate to ensure consistent, repeatable, and reliable measurements to critical components. This lack of fully implementing and institutionalizing operating experience directly contributed to the event.

Inspection Report# : [2007004](#) (*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:  Oct 11, 2007

Identified By: NRC

Item Type: FIN Finding

Loss of Control Room Annunciators due to Poor Worker Material Control for ERFDADS Inverter Upgrade

The inspectors reviewed a self-revealing finding for an inadequate procedure, STI 32174927, "Conduct of Maintenance," Revision 5, for work associated with the Unit 1 emergency response facility data acquisition and display systems inverter modification activities. On August 27, 2007, maintenance personnel were installing a 4-inch diameter conduit in the Unit 1 Train B 4160 volt switchgear room in close proximity to a voltage regulating transformer which was powering Distribution Panels DP 200 and DP 300, which powers approximately 25 percent of the control room annunciators. While installing the conduit, it came into contact with the input breaker on the transformer causing it to open and de-energized Distribution Panels DP 200 and DP 300. All loads lost were recovered in approximately 30 minutes with no additional challenges. As a result of this lack of procedural guidance for working around sensitive equipment, the crews' prejob and at the work site briefs did not recognize the potential impact of working in close proximity to the transformer powering Distribution Panels DP 200 and DP 300.

The failure to adequately control the conduit being installed, as a result of inadequate procedural guidance and which resulted in 25 percent of control room annunciators being lost, was considered a performance deficiency. This finding was more than minor because it could impact the operator's ability to respond to unusual plant conditions due to lack of control room annunciators, and the reliance on reports from operators in the field; and if left uncorrected, this type of control room deficiency could become a more significant safety concern. The inspectors evaluated the significance of this finding using Inspection Manual Chapter 0609, Appendix M, "Significance Determination Process using Qualitative Criteria," and determined that the finding was of very low safety significance based on the fact that the loss of annunciators did not challenge the ability to determine emergency action levels, was of short duration, did not impact any automatic actuation systems, and the operations crew took immediate corrective and compensatory actions to restore the transformer. This finding had a crosscutting aspect in the area of human performance associated with the work control component because the licensee failed to ensure that adequate guidance was available to properly evaluate specific job site conditions, and the potential for human-system interface [H.3(a)] with regard to sensitive equipment. This directly contributed to the event because the workers were unaware of how their activities could have an impact on sensitive equipment.

Inspection Report# : [2007004](#) (*pdf*)

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