South Texas 1
1Q/2010 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correctly Implement Emergency Operating Procedures
A self-revealing non-cited violation of Technical Specification 6.8.1 was identified for failing to properly implement Emergency Operating Procedures required by section 6.8.1a. Specifically, four crews out of five did not take actions as directed in 0POP05-EO-FRC2, Response to Degraded Core Cooling, Step 2. Specifically, Step 2 directs the Operators to "Verify SI Flow in all trains." If flow in all High Head Safety Injection trains is not present, the Response Not Obtained column of the procedure directs a manual start of High Head Safety Injection pumps that are not running. If it is determined that flow has still not been established in all trains, the subsequent Response Not Obtained steps direct the operators to establish maximum charging flow. Three applicant crews failed to identify Safety Injection flow did not exist in all trains and continued with the procedure without performing Response Not Obtained actions. One licensed crew recognized Safety Injection did not exist in all trains, but failed to establish maximum charging. The licensee has entered this issue into their corrective action program as Condition Report 09-20312.

This finding was more than minor because it affected the mitigating systems cornerstone attributes of procedure quality and human performance of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Also, using Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," Appendix B, Section 1-3, "Screen for More than Minor - ROP," question 2, the finding is more than minor because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Using the Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheets, the finding was determined to have very low safety significance (Green) because it was not a design issue resulting in loss of function, did not represent an actual loss of a system safety function, did not result in exceeding a Technical Specification allowed outage time, and did not affect external event mitigation. The finding had a crosscutting aspect in the area of Problem Identification and Resolution associated with the corrective action program because the licensee failed to identify and correct deficiencies associated with the training program and procedures for degraded and inadequate core cooling at a threshold commensurate with the safety significance [P.1 (a)].
Inspection Report# : 2009301 *(pdf)*

Significance: G Oct 03, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Reportability Results in Two Trains of the Essential Chilled Water System Being Inoperable
The inspectors identified an inadequate reportability review that resulted in a Green noncited violation of Technical Specification 3.7.14 because the licensee had two independent loops of essential chilled water system inoperable for longer than the allowed outage time. The licensee’s reportability review failed to identify that the train B essential chilled water system was inoperable because the oil reservoir temperature was below the required value while the train C essential chilled water system was inoperable for planned maintenance. The licensee concluded that even though the chiller was inoperable, it was not reportable because the time it took to repair was less than the technical specification allowed outage time, however, the inspectors identified that essential chiller 12B oil reservoir temperature was below the required value. Consequently the inspectors continued to ask the licensee questions

regarding the lower limit for the oil reservoir temperature and why the chiller was not considered inoperable from the time it was secured. As a result of this observation, the licensee performed another operability and reportability review and determined that the issue was reportable for having two loops of the essential chilled water system inoperable for longer than the technical specification allowed outage time.

The finding was more than minor because it affected the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding was determined to have very low safety significance because it was not a design or qualification deficiency, did not represent a loss of system safety function, did not represent actual loss of a single train for greater than the technical specification allowed time, and did not screen as risk significant due to seismic, flooding, or severe weather. In addition, this finding had human performance crosscutting aspects associated with decision making in that the licensee did not use conservative assumptions in decision making and did not conduct effectiveness reviews of safety-significant decisions to verify the validity of the underlying assumptions [H.1(b)].

Inspection Report# : 2009004 *(pdf)*

Significance: G Jul 04, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify Maintenance Rule A1 Condition
The inspectors identified a noncited violation of 10 CFR 50.65(a)(2) for the licensee's failure to effectively monitor the performance of the Unit 2 4160Vac Class 1E system. On August 30, 2007, an undervoltage Agastat relay on the Unit 2 4160Vac Train A bus failed. The inspectors determined that this failure should have been recorded as a maintenance preventable functional failure, which would have caused the system to be placed into the Maintenance Rule A1 category. The reason for not recording this failure as a maintenance preventable functional failure was the improper use of the as-found condition codes. The licensee has captured this event under Condition Report 09-2891.

This finding was more than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. Using the Significance Determination Process Phase 1 worksheet, this finding was determined to have very low safety significance because it did not result in the actual loss of safety function of one or more trains and did not screen as risk-significant due to seismic, flooding, or severe weather. This finding had a human performance crosscutting aspect associated with work practices because workers failed to ensure proper documentation of activities [H.4(a)].

Inspection Report# : 2009003 *(pdf)*

Significance: G Jul 04, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Ensure a Reliable Fire Suppression Water Supply System
The inspectors identified a noncited violation of License Condition 2.E, "Fire Protection," for the failure to ensure that a fire pump would automatically start upon low pressure in the fire main in the event of a fire in the electrical auxiliary building. The team determined that cables for all three fire pumps were routed together in the same cable trays. As a result, a single fire could result in the failure of all three fire pumps to start automatically or manually from the control room. A fire pump could be started locally to restore the water supply, but the delay would reduce the effectiveness of the fire suppression systems in limiting the growth of a fire and minimizing damage to safety-related equipment. The licensee entered this issue into the corrective action program as Condition Report 08-9589.

Failure to ensure that a fire pump would automatically start upon low pressure in the fire main in the event of a fire is a performance deficiency. This finding is more than minor because it is associated with the Protection Against External Events attribute of the Mitigating Systems cornerstone and could affect the availability, reliability, and capability of systems that respond to initiating events (such as fire) to prevent undesirable consequences. Based on the senior reactor analyst Phase 3 analysis of the Significance Determination Process, and Inspection Manual Chapter

0609, this finding was determined to have very low safety significance.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jul 04, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Potential Loss of Centrifugal Charging Pump Suction Due to Fire Damage
The inspectors identified a noncited violation of License Condition 2.E, "Fire Protection," for failure to ensure that equipment required for post-fire safe shutdown system remains free of fire damage. Specifically, the licensee credited manual actions to mitigate the effects of fire damage in lieu of providing the physical protection required by 10 CFR Part 50, Appendix R, Section III.G for the two series-connected volume control tank outlet valves (motor-operated Valve 112B and motor-operated Valve 113A).

Failure to ensure that the volume control tank outlet valves relied upon for achieving post-fire safe shutdown were protected from fire damage was a performance deficiency. This finding is of greater than minor safety significance because it impacted the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to external events (such as fire) to prevent undesirable consequences. Specifically, 13 fire areas contain unprotected cables that had the potential to spuriously close at least one of the volume control tank outlet valves which could result in a loss of suction and damage to the only charging pump credited for post-fire safe shutdown. Based on the senior reactor analyst Phase 3 analysis of the Significance Determination Process, this finding was determined to have very low safety significance.
Inspection Report# : 2009003 *(pdf)*

Significance: G Apr 09, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Surveillance Test for Component Cooling Water
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," for the inadequate surveillance Procedure 0PSP05-CC-0001, "FCI CCW Surge Tank Compartment Level Switch Calibration," Revision 7. On October 14, 2008, during the 18-month surveillance test, Unit 2 component cooling water Train A was determined to be inoperable due to the failure of system valves to actuate to their designated positions. Troubleshooting determined that a loose wire was the reason for the inoperability. The wire was restored and the train returned to operable status on October 16, 2008. From January 22 through October 16, 2008, the Train A component cooling water low-low level switch was inoperable. Since this procedure is applicable to all trains of both units, the licensee verified that all other trains low-low level switches on both units were either surveillance tested after the last calibration procedure or were functionally checked using a temporary procedure to ensure operability.

The finding was more than minor because it was similar to several examples in Inspection Manual Chapter 0612, Appendix E, where the system was returned to service without being fully operable, and it affected the Mitigating Systems cornerstone attribute of procedure quality and the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding was determined to have very low safety significance because it did not result in the actual loss of safety function of one or more trains and it did not screen as risk significant due to seismic, flooding, fire, or severe weather. This issue had no crosscutting aspects because the last revision to the procedure was too long ago (2005) to be indicative of current performance.

Inspection Report# : 2009002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jul 04, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Perform Radiation Surveys
A self-revealing noncited violation of 10 CFR 20.1501(a) was identified for failure to perform a radiological survey to determine the potential radiological hazards present when deposting a high contamination area. On October 25, 2008, decontamination technicians were sent into the reactor containment building to remove the decontamination tent from steam generator eddy current testing which was posted as a high contamination area. The technicians were not informed of the expectation to decontaminate the scaffolding and health physics personnel did not follow-up and perform surveys of the deposted area. Subsequently, carpenters were sent in to remove the scaffolding which was still highly contaminated. The licensee was made aware of the situation when one of the carpenters alarmed the personnel contamination monitor and a whole body count revealed approximately 3 millirem intake. The issue was entered into the licensee's corrective action program as Condition Report 08-16599.

The failure to perform surveys necessary to support deposting a contamination area is a performance deficiency. The finding was greater than minor because it was associated with the Occupational Radiation Safety cornerstone attribute (exposure control) of program and process and affected the cornerstone objective, in that, failure to conduct a radiation survey resulted in unplanned and unintended dose to personnel. Using the Occupational Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because it was not an as low as is reasonably achievable finding, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised. The finding was self-revealing because the licensee was alerted to the situation when the worker could not pass the personnel contamination monitor. Additionally, this finding had human performance crosscutting aspects associated with work control, in that, the work planning did not appropriately plan work activities by incorporating risk insights and radiological safety [H.3(a)].

Inspection Report# : 2009003 *(pdf)*

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

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