

South Texas 2

2Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Fire Protection System Functionality Procedure Results in Failure to Establish Fire Watches

The inspectors identified a noncited violation of license condition 2.E, "Fire Protection Program," because of an inadequate procedure that resulted in the licensee failing to establish compensatory fire watches in eight fire zones with degraded fire detection equipment. On March 2, 2011, the inspectors reviewed fire impairments to ensure adequate compensatory actions were being implemented. The inspectors identified that fire watches were not implemented in several areas where the fire detection system was degraded because Procedure OPGP03-ZF-0018, "Fire Protection System Functionality Requirements," Revision 14, did not require a fire watch until greater than 50 percent of the fire detection functionality within the fire zone was degraded. The inspectors determined that the licensee failed to correctly copy the licensing basis NUREG-0452 technical specification requirements into the procedure. The licensee's corrective actions included: (1) posting an hourly fire watch; (2) changing the procedure to correctly reflect licensing basis requirements; and (3) providing training to fire safety and operations personnel.

The finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of procedure quality and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, because the lack of compensatory measures could result in a delayed response to a fire. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Appendix F, dated February 28, 2005, because the finding affected fire protection defense-in-depth strategies, as described in NRC Inspection Manual Chapter 0609.04, Table 3b, "Phase 1 - Initial Screening and Characterization of Findings," dated January 10, 2008. The finding was assigned to the fixed fire protection systems category with a degradation rating of moderate because compensatory measures were not in place for unoccupied fire areas that had greater than 10 percent degradation of fire detection equipment. Because the finding was a programmatic weakness where multiple fire areas lacked compensatory measures and it had a moderate degradation rating, the finding required a Phase 3 analysis be performed by a senior reactor analyst.

The senior reactor analyst determined that the finding was of very low safety significance because there were no identified dominant core damage sequences, and, therefore, there was no quantifiable change to the core damage frequency. The functional fire detectors helped to mitigate the risk. This finding did not have cross-cutting aspects because the licensee had not made changes to this procedural requirement within the last 3 years, and therefore, was not indicative of current licensee performance.

Inspection Report# : [2011003](#) (*pdf*)

Significance:  Mar 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Restoration Results in Void in High Head Safety Injection Pump 2C

The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," for the failure to follow Procedure OPOP11-SI-0001, "Safety Injection/Containment Spray Pump Online Isolation and Restoration," Revision 0. During the performance of a surveillance test on Unit 2 high head safety injection pump 2C, air was vented from the flushing line vent valve. The acceptance criterion was

that no air be vented. The source of the air was from a maintenance activity performed August 16-19, 2010. During the maintenance, the equipment clearance order boundary was moved from the discharge valve to the subsequent downstream valve. As a result, during restoration it was not recognized that this new boundary introduced approximately 7 feet of vertical piping that could not be vented. Corrective actions included venting using a high point downstream of the boundary valve; ensuring that the station is aware of the procedure and the reason behind the creation of the procedure to address the Generic Letter 2008-01 concerns, so that impact of changes to the work scope can be appropriately controlled and evaluated; and changing the wording of the procedure to not allow moving the boundary outside of the discharge valve while at power.

This finding was more than minor because it affected the Mitigating Systems Cornerstone attributes of Human Performance and Procedure Quality and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This deficiency directly resulted in the high head pump containing a void in the system following maintenance after it was returned to an operable status. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," dated January 10, 2008, because it affected the Mitigating Systems Cornerstone while the plant was at power. The finding was determined to be of very low safety significance because it was not a design or qualification deficiency; it did not result in the loss of a system safety function; it did not represent a loss of a single train for greater than technical specification allowed outage time; it did not represent a loss of one or more nontechnical specification risk-significant equipment for greater than 24 hours; and it did not screen as potentially risk significant due to seismic, flooding, or severe weather. In addition, this finding had human performance cross-cutting aspects associated with work control in that the licensee did not incorporate actions to address the impact of changes to the work scope [H.3(b)].

Inspection Report# : [2011002](#) (pdf)

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform an Immediate Operability Determination

The inspectors identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," for the failure to follow Procedure OPGP03-ZX-0002, "Condition Reporting Process," Revision 38. On January 13, 2011, the licensee wrote Condition Report 11-1261 which states, in part, "Twenty-six transfer switches required by Technical Specification 3.3.3.5, Remote Shutdown System, appear to not be listed." Procedure OPGP03-ZX-0002, step 4.3.2 states, in part, that conditions that may have an impact on the operability of a technical specification related system shall be screened as yes or indeterminate. The corrective action program supervisor that screened this condition report marked the operability as "No." The inspectors questioned the licensee on January 14 and 18, 2011, as to why no immediate operability determination had been performed. The licensee's corrective actions determined that an immediate and subsequent prompt operability determination was warranted. The inspectors interviewed the supervisor and determined that the supervisor did not use conservative assumptions and adopt a requirement to demonstrate that the proposed action is safe in order to proceed when screening the issue for operability.

This finding was more than minor because it affected the Mitigating Systems Cornerstone attributes of Human Performance and Procedure Quality and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to recognize that risk-significant equipment is in a potentially inoperable condition and, as such, may not be able to perform its specified safety function would not be recognized and accounted for by operators. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," dated January 10, 2008, because it affected the Mitigating Systems Cornerstone while the plant was at power. The finding was determined to be of very low safety significance because it was not a design or qualification deficiency; it did not result in the loss of a system safety function; it did not represent a loss of a single train for greater than technical specification allowed outage time; it did not represent a loss of one or more nontechnical specification risk-significant equipment for greater than 24 hours; and it did not screen as potentially risk significant due to seismic, flooding, or severe weather. In addition, this finding had human performance cross-cutting aspects associated with decision making in that the licensee did not use conservative assumptions and adopt a requirement to demonstrate that the proposed action is safe in order to proceed [H.1(b)].

Inspection Report# : [2011002](#) (pdf)

Significance: G Mar 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Untimely Corrective Action to Correct Nonconforming Steam Generator Power Operated Relief Valve Condition

The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," for the failure to assure that conditions adverse to quality were corrected in a timely manner, or that an evaluation to justify a longer completion time beyond the first available opportunity was performed. On June 2, 2008, steam generator power operated relief valve 1A failed to stroke full closed as part of surveillance testing. The operability determination concluded that the steam generator power operated relief valves were operable but nonconforming. On August 25, 2010, steam generator power operated relief valve 1D failed to stroke closed as part of surveillance testing. This new prompt operability determined that the previous operability was flawed. It did not consider all functions associated with the valves, in particular, the dose mitigation function. It was also determined that the licensee failed to adequately track an operable but nonconforming condition to ensure resolution in a timely manner. The licensee has since updated the design modification timeline to install the failed closed circuitry in both units during the respective 2011 refueling outages.

This finding was more than minor because it affected the Mitigating Systems Cornerstone attributes of Design Control and Equipment Performance and affected the cornerstone objective to ensure that availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The deficiency resulted in the Updated Final Safety Analysis Report Chapter 15 Accident Analysis dose calculations being nonconservative if the relief valves would fail to go closed on loss of power. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," dated January 10, 2008, because it affected the Mitigating Systems Cornerstone while the plant was at power. The finding was determined to be of very low safety significance because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality. In addition, this finding had problem identification and resolution cross-cutting aspects associated with the corrective action program in that the licensee did not thoroughly evaluate the problem such that the resolutions address causes, and did not properly evaluate for operability conditions adverse to quality [P.1(c)].

Inspection Report# : [2011002](#) (*pdf*)

Significance: G Jan 11, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Nonconservative Modeling of Engineered Safety Feature Transformer Load Tap Changer Controller Dead Band

The team identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states, in part, "measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions." Specifically, as of August 8, 2010, Calculation EC 5000 did not properly analyze the performance of the load tap changer controller for the new engineered safety feature transformer E1B for avoiding spurious separation of the offsite power supply. This finding was entered into the licensee's corrective action program as Condition Report 10-17147.

The team determined that the failure to properly analyze the performance of the load tap changer controller for the new engineered safety feature transformer E1B was a performance deficiency. The finding is more than minor because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the team determined that the finding was of very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality. Specifically, the licensee performed subsequent analyses, which demonstrated that the load tap changer controller would function as required to mitigate an accident. This finding had a crosscutting aspect in the area of human performance, resources, because the licensee failed to impart knowledge/training to personnel. Specifically, the licensee had not provided technical oversight of design changes prepared by the on-site contractor [H.2(b)].

Significance:  Jan 11, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Calculations for Degraded Voltage Relay Voltage Setpoint

The team identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states, in part, “measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions.” Specifically, as of August 8, 2010, the team identified three examples of the violation where 1) the licensee’s calculations for starting motors during accident load sequencing were based on the minimum expected voltage assured by administrative controls, rather than the lowest voltage afforded by the degraded voltage relays; 2) the licensee did not have calculations to demonstrate that individual motors, other than motor-operated valve motors, could be started during steady state conditions, based on the worst case voltage afforded by the relays; and 3) the licensee used nonconservative acceptance criteria in calculations for motor control center contactor pick-up voltage. This finding was entered into the licensee’s corrective action program as Condition Reports 10-7244 and 10-19950.

The team determined that the failure to properly verify the adequacy of calculations for the voltage setpoint for the degraded voltage relays was a performance deficiency. The finding is more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the team determined that the finding was of very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality. Specifically, the licensee performed subsequent analyses, which demonstrated that the degraded voltage relays would function as required to mitigate an accident. This finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

Inspection Report# : [2010007](#) (pdf)

Significance:  Jan 11, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Analysis of Emergency Core Cooling System Transfer to Containment Sump

The team identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states in part, “measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions.” Specifically, prior to August 20, 2010, the licensee did not adequately analyze the transfer of the emergency core cooling systems and containment spray pump suction from the refueling water storage tank to the containment sump under postaccident conditions. The team determined that the current design calculations did not include the time required for the operators to close the refueling water storage tank isolation valves from the control room or account for the potential of water draining directly from the refueling water storage tank to the containment sump. This finding was entered into the licensee’s corrective action program as Condition Report 10-17868.

The team determined that the failure to adequately analyze the transfer of the emergency core cooling systems and containment spray pump suction from the refueling water storage tank to the containment sump under postaccident conditions was a performance deficiency. The finding is more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the team determined that the finding was of very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality. Specifically, the licensee performed subsequent analyses, which demonstrated that the suction supplies would function as required to mitigate the accident. This finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

Significance:  Jan 11, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Analysis and Procedures for Offsite Power Availability

The team identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, which states, in part, “measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions.” Specifically, as of August 20, 2010, the team identified two examples of the violation where 1) the licensee did not verify the adequacy of the design for avoiding spurious separation of the offsite power supply in that Calculation EC- 5000 did not analyze all alternate alignments of the electrical distribution system allowed by technical specifications; and 2) the licensee failed to properly translate the design into procedures, in that Procedure OPOP02-AE-0002 did not provide adequate controls for maintaining the availability of offsite power required by the design. This finding was entered into the licensee’s corrective action program as Condition Reports 10-17146, 10-17219, and 10-17618.

The team determined that the failure to analyze all alternate alignments of the electrical distribution system allowed by technical specifications and provide adequate controls for maintaining the availability of offsite power required by the design, was a performance deficiency. The finding is more than minor because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the team determined that the finding was of very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality. Specifically, the licensee performed subsequent analyses, which demonstrated that the offsite electrical distribution system would function as required to mitigate an accident. This finding had a crosscutting aspect in the area of human performance, resources, because the licensee failed to provide complete, accurate and up-to-date design documentation, including calculations and procedures, to assure nuclear safety [H.2(c)].

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Design Review Removes Safety Injection Flush Line Valves from Locked Valve Program

On October 21, 2010, the inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria III, “Design Control,” for the failure to properly ensure that design standards were correctly translated into drawings; procedures; and instructions. Specifically, the failure to ensure that the safety injection flush line valves were tracked in accordance with the locked valve program. The inspectors questioned the licensee about the lack of a lock on these isolation valves, because these valves are a single failure away from reducing the amount of flow that would be available for core cooling in the event of a safety injection. The licensee performed an engineering evaluation as part of Condition Report 10-22911 and concluded that the original 1993 evaluation was not adequately performed and that the valves are currently operable but nonconforming since they were not in the locked valve program. The licensee is updating their locked valve program to include the safety injection flush line valves as locked valves.

The finding was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Design Control and Configuration Control and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. If one of the valves was out of position, it could have resulted in approximately an 11 percent reduction in safety injection pump flow. The inspectors performed the significance determination using NRC Inspection Manual 0609, Attachment 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” dated January 10, 2008, because it affected the Mitigating Systems Cornerstone while the plant was at power. The finding was determined to be of very low safety significance because it was not a design or qualification deficiency; it did not result in the loss of a system safety function; it did not represent the loss of a single train for greater than technical specification allowed outage time; it did not represent a loss of one or more nontechnical specification risk-significant equipment for greater than 24 hours;

and it did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding did not have crosscutting aspects because the design modification which removed the valves from the locked valve program was performed in 1993.

Inspection Report# : [2010005](#) (pdf)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Install the Required Number of Smoke Detectors (4) in the Auxiliary Shutdown Rooms

The inspectors identified a noncited violation of license condition 2.E, Fire Protection Program, for the failure to install the required number of smoke detectors (four) in the auxiliary shutdown room per the National Fire Protection Association Standard 72E-1978 on automatic fire detection. On October 5, 2010, during a quarterly fire inspection walkdown of the auxiliary shutdown room, the inspectors identified that the room only had three smoke detectors. The inspectors questioned whether three smoke detectors were sufficient for the size of the room (950 square feet). After further evaluation, the licensee concluded that an additional smoke detector needed to be installed. The licensee's corrective action is to install another smoke detector in each unit's auxiliary shutdown room.

The finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of Design Control and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences because a fire may not be detected in time to prevent damage to the auxiliary shutdown panel rendering it unavailable or unreliable. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Appendix F, dated February 28, 2005, because the finding affected fire protection defense-in-depth strategies, as described in NRC Inspection Manual Chapter 0609, Attachment 0609.04, Table 3b, "Phase 1 – Initial Screening and Characterization of Findings," dated January 10, 2008. The finding was assigned to the fixed fire protection systems category with a degradation rating of moderate because the room was missing 25 percent of the required smoke detection equipment. The finding was determined to be of very low safety significance because the delta-core damage frequency of $2.34E-7$ was less than the $1.0E-5$ value in Table 1.4.3, Phase 1 Quantitative Screening Criteria, of NRC Inspection Manual Chapter 0609, Appendix F. This finding did not have crosscutting aspects because the condition existed since initial plant start up.

Inspection Report# : [2010005](#) (pdf)

Significance:  Dec 31, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Follow Procedure Results in Protective Relay Trip of Residual Heat Removal Pump

On October 17, 2010, the inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," for the failure to follow Procedure 0PSP03-RH-0003, "Residual Heat Removal Pump 1C(2C) Inservice Test," Revision 16. The procedure directs the operator to establish the proper lineup for the test in step 5.2.2 and is followed by a table with various valves and breakers to be aligned by one individual and then verified by a second individual. This table lists mini flow isolation valve MOV-0067C as being required to be open. The first operator failed to perform an adequate self-check to ensure that he was following the procedure and the second operator also failed to perform an adequate self-check to ensure that the valve was in the correct position prior to starting the pump. Consequently, when the first operator started the pump, it tripped on low flow approximately 5 seconds later. The shift manager then refocused the control room operators, ensured that everyone was engaged, re-performed the procedure, and successfully completed the surveillance test. Corrective actions that the licensee implemented included remediating the individuals involved on the use of human performance tools and revising the surveillance test procedures to list the mini flow isolation valves as a separate stand alone step.

The finding was more than minor because it affected the Mitigating Systems Cornerstone attributes of Procedure Quality and Human Performance and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This deficiency directly challenged the residual heat removal system by relying on the low flow trip to secure the pump before pump damage occurred. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609,

Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," dated January 10, 2008, because it affected the Mitigating Systems Cornerstone while the plant was at power. The finding was determined to be of very low safety significance because it was not a design or qualification deficiency; it did not result in the loss of a system safety function; it did not represent the loss of a single train for greater than technical specification allowed outage time; it did not represent a loss of one or more nontechnical specification risk-significant equipment for greater than 24 hours; and it did not screen as potentially risk significant due to seismic, flooding, or severe weather. In addition, this finding had human performance crosscutting aspects associated with work practices in that the licensee did not communicate human error prevention techniques, such as self checking, commensurate with the risk [H.4(a)].

Inspection Report# : [2010005](#) (pdf)

Significance:  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Repair Essential Cooling Water System Leak within the Technical Specification Allowed Outage Time

The inspectors identified a Green noncited violation of Technical Specification 3.7.4 because the licensee had one independent loop of essential cooling water inoperable for longer than the allowed outage time of 7 days. Specifically, on October 27, 2009, the licensee failed to initiate actions to evaluate and repair a through-wall leak in the 30-inch essential cooling water return line from the Unit 2 train C component cooling water heat exchanger, as required by American Society of Mechanical Engineers Boiler and Pressure Vessel Code, and in accordance with guidance contained in NRC Generic Letter 90-05, "Guidance for Performing Temporary Non-Code Repair of ASME Code Class 1, 2, and 3 Piping." The inspectors questioned the licensee's reportability review and determined there was firm evidence that the through-wall leak caused the Unit 2 train C essential cooling water system to be inoperable for a period of 11 days instead of 8 days as initially concluded by the licensee. The licensee's corrective actions were: (1) the leak was repaired, (2) a revised licensee event report was submitted, (3) training was provided to personnel performing these evaluations, and (4) procedures were updated to require that these types of evaluations must be performed.

The finding was more than minor because the through-wall leak could have challenged the structural integrity of the piping and it was associated with the Mitigating Systems Cornerstone attribute of configuration control and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors performed the initial significance determination using NRC Inspection Manual 0609, Attachment 0609.04, dated January 10, 2008, "Phase 1– Initial Screening and Characterization of Findings," because it affected the Mitigating Systems Cornerstone while the plant was at power, and determined a Phase 2 was required because it involved an actual loss of safety function of a single train. A Region IV senior reactor analyst performed a Phase 2 significance determination and found that the finding was potentially greater than Green. The senior reactor analyst then performed a bounding Phase 3 significance determination and found the finding to be of very low safety significance. The dominant core damage sequences included: seismic initiated loss of offsite power, failure of the essential cooling water train C, failure of the train A and B standby diesel generators, failure to recover offsite power and a standby diesel generator in 4 hours, and an event initiated reactor coolant pump seal loss-of-coolant accident. Remaining mitigation equipment that helped to limit the significance of the finding included the remaining functional essential cooling water trains and the turbine-driven auxiliary feedwater pump. In addition, this finding had human performance crosscutting aspects associated with resources in that the licensee did not ensure that training of personnel about the requirements for properly characterizing Class 3 piping leaks was adequate to assure nuclear safety [H.2(b)].

Inspection Report# : [2010004](#) (pdf)

Significance:  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform Adequate Operability Review of High Temperatures in Isolation Valve Cubicle Room

The inspectors identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings," for the failure to follow Procedure OPGP03-ZO-9900, "Operability Determinations and Functionality Assessments," Revision 1. On August 4, 2010, the Unit 2 isolation valve cubicle room temperature

exceeded 104°F for longer than 8 hours, reached a peak recorded temperature of 109°F. Per Technical Requirements Manual Specification 3.7.13, when the temperature of the isolation valve cubicle exceeds 104°F for longer than 8 hours then an evaluation must be performed to determine continued operability of the affected equipment. The inspectors determined that the previous prompt operability determinations concluded that the maximum recorded temperature had been 108°F and that the time allowed at this temperature was roughly 150 hours. The inspectors' review of the control room logs determined that both of these conditions were exceeded, 109°F and over 250 hours, therefore, a new prompt operability determination needed to be performed to ensure continued operability of the equipment, not only from an environmental qualification standpoint, but also from a high energy line break accident scenario. The licensee's corrective actions included performing a new prompt operability determination to ensure continued operability of the affected equipment.

The finding was more than minor because, if left uncorrected, it could have led to a more significant safety concern because systems that may be inoperable may not be recognized and it was associated with the Mitigating Systems Cornerstone attribute of configuration control and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors performed the significance determination using the NRC Inspection Manual 0609, Attachment 0609.04, dated January 10, 2008, "Phase 1 – Initial Screening and Characterization of Findings," because it affected the Mitigating Systems Cornerstone while the plant was at power. The finding was determined to be of very low safety significance because it was not a design or qualification deficiency, it did not result in the loss of a system safety function, it did not represent the loss of a single train for greater than technical specification allowed outage time, it did not represent a loss of one or more non-technical specification risk significant equipment for greater than 24 hours, and it did not screen as potentially 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 make safety-significant decisions using a systematic process, specifically, not implementing roles and authorities as designed and obtaining interdisciplinary input and reviews [H.1(a)].

Inspection Report# : [2010004](#) (*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: N/A Sep 16, 2010

Identified By: NRC

Item Type: FIN Finding

South Texas Project, 2010 Biennial Problem Identification and Resolution Inspection Assessment

Overall, the team concluded that the licensee was effective in identifying, evaluating, and correcting problems. The team also determined that the procedures and program controls associated with the corrective action program were well established. However, these implementing processes were not consistently followed and corrective actions were not always completed in a timely manner.

The team noted that the bases for some operability evaluations were not clear and adequately supported. Additionally, the team noted that the licensee's process for correcting deficient conditions allowed a 22-month time limit. This process resulted in a number of degraded conditions not being addressed in a timely manner such as during the next available outage.

Overall, the team determined that the licensee had appropriately evaluated industry operating experience for relevance to the facility, and had entered applicable items in the corrective action program. However, once this information was disseminated, the reviews and other actions associated with or generated as part of the condition report actions were not being completed in a timely manner. Quality assurance audits and other self-assessment activities have been effective in identifying issues and areas for improvement.

Overall, the team concluded that there was a safety conscious work environment in place at South Texas Project. The team determined that the many of the individuals questioned lacked familiarity with the Employee Concerns Program coordinators because of a lack of visibility in the facility.

Inspection Report# : [2010006](#) (*pdf*)

Last modified : October 14, 2011