South Texas 2

Initiating Events

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Mitigating Systems

Significance: TBD Dec 29, 2001
Identified By: NRC
Item Type: AV Apparent Violation
Two procedures which were inappropriate to the circumstances resulted in Essential Cooling Water Pump 1C failure
The Train 1C essential cooling water pump failed during a postmaintenance test following maintenance on the pump. Bearing lubricating water channels were found to be blocked by foreign material introduced during the maintenance work. Additionally, operators failed to recognize the inadequate lubricating water flow and continued to run the pump for 10 minutes before it failed. The inspectors concluded that the operating and maintenance procedures were inappropriate to the circumstances. The maintenance procedures for rebuilding the pump did not adequately ensure that the appropriate cleanliness requirements were implemented during the work, and the portion of the operating procedure used to fill and vent the system following maintenance did not correctly incorporate vendor manual information to ensure timely verification of adequate cooling water flow. This was determined to be an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."
Inspection Report# : 2001006*(pdf)*

Significance: G Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically,

no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation

Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process.
Inspection Report# : 2001002*(pdf)*

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance: G Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Barrier Integrity

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003
Inspection Report# : 2001002*(pdf)*

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation.
Inspection Report# : 2001006*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.

Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumend duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance:  Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309).
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.
Inspection Report# : 2000008*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Last modified : April 01, 2002

South Texas 2

Initiating Events

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Mitigating Systems

Significance: G Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Significance: TBD Dec 29, 2001
Identified By: NRC
Item Type: AV Apparent Violation
Two procedures which were inappropriate to the circumstances resulted in Essential Cooling Water Pump 1C failure
The Train 1C essential cooling water pump failed during a postmaintenance test following maintenance on the pump. Bearing lubricating water channels were found to be blocked by foreign material introduced during the maintenance work. Additionally, operators failed to recognize the inadequate lubricating water flow and continued to run the pump for 10 minutes before it failed. The inspectors concluded that the operating and maintenance procedures were inappropriate to the circumstances. The maintenance procedures for rebuilding the pump did not adequately ensure

that the appropriate cleanliness requirements were implemented during the work, and the portion of the operating procedure used to fill and vent the system following maintenance did not correctly incorporate vendor manual information to ensure timely verification of adequate cooling water flow. This was determined to be an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."
Inspection Report# : 2001006*(pdf)*

Significance: G Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically, no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process.
Inspection Report# : 2001002*(pdf)*

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Barrier Integrity

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented

to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003
Inspection Report# : 2001002*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation.
Inspection Report# : 2001006*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area

Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.
Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming

conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumend duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance: G Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309).
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.
Inspection Report# : 2000008*(pdf)*

Last modified : April 01, 2002

South Texas 2

Initiating Events

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Mitigating Systems

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing

Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance:  Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Significance: TBD Dec 29, 2001
Identified By: NRC
Item Type: AV Apparent Violation
Two procedures which were inappropriate to the circumstances resulted in Essential Cooling Water Pump 1C failure
The Train 1C essential cooling water pump failed during a postmaintenance test following maintenance on the pump. Bearing lubricating water channels were found to be blocked by foreign material introduced during the maintenance work. Additionally, operators failed to recognize the inadequate lubricating water flow and continued to run the pump for 10 minutes before it failed. The inspectors concluded that the operating and maintenance procedures were inappropriate to the circumstances. The maintenance procedures for rebuilding the pump did not adequately ensure that the appropriate cleanliness requirements were implemented during the work, and the portion of the operating procedure used to fill and vent the system following maintenance did not correctly incorporate vendor manual information to ensure timely verification of adequate cooling water flow. This was determined to be an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."
Inspection Report# : 2001006*(pdf)*

Significance:  Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically, no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather.
Inspection Report# : 2001010*(pdf)*

Significance:  Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded

the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process.
Inspection Report# : 2001002*(pdf)*

Barrier Integrity

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003
Inspection Report# : 2001002*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation.
Inspection Report# : 2001006*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.

Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.

Inspection Report# : 2000008*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumend duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance: G Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309).
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Last modified : March 29, 2002

South Texas 2

Initiating Events

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Mitigating Systems

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing

Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance:  Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Significance: TBD Dec 29, 2001
Identified By: NRC
Item Type: AV Apparent Violation
Two procedures which were inappropriate to the circumstances resulted in Essential Cooling Water Pump 1C failure
The Train 1C essential cooling water pump failed during a postmaintenance test following maintenance on the pump. Bearing lubricating water channels were found to be blocked by foreign material introduced during the maintenance work. Additionally, operators failed to recognize the inadequate lubricating water flow and continued to run the pump for 10 minutes before it failed. The inspectors concluded that the operating and maintenance procedures were inappropriate to the circumstances. The maintenance procedures for rebuilding the pump did not adequately ensure that the appropriate cleanliness requirements were implemented during the work, and the portion of the operating procedure used to fill and vent the system following maintenance did not correctly incorporate vendor manual information to ensure timely verification of adequate cooling water flow. This was determined to be an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."
Inspection Report# : 2001006*(pdf)*

Significance:  Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically, no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather.
Inspection Report# : 2001010*(pdf)*

Significance:  Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded

the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process.
Inspection Report# : 2001002*(pdf)*

Barrier Integrity

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003
Inspection Report# : 2001002*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.
Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation.
Inspection Report# : 2001006*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.

Inspection Report# : 2000008*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumend duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance: G Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309).
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Last modified : March 28, 2002

South Texas 2

Initiating Events

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Mitigating Systems

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing

Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance:  Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Significance: TBD Dec 29, 2001
Identified By: NRC
Item Type: AV Apparent Violation
Two procedures which were inappropriate to the circumstances resulted in Essential Cooling Water Pump 1C failure
The Train 1C essential cooling water pump failed during a postmaintenance test following maintenance on the pump. Bearing lubricating water channels were found to be blocked by foreign material introduced during the maintenance work. Additionally, operators failed to recognize the inadequate lubricating water flow and continued to run the pump for 10 minutes before it failed. The inspectors concluded that the operating and maintenance procedures were inappropriate to the circumstances. The maintenance procedures for rebuilding the pump did not adequately ensure that the appropriate cleanliness requirements were implemented during the work, and the portion of the operating procedure used to fill and vent the system following maintenance did not correctly incorporate vendor manual information to ensure timely verification of adequate cooling water flow. This was determined to be an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."
Inspection Report# : 2001006*(pdf)*

Significance:  Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically, no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather.
Inspection Report# : 2001010*(pdf)*

Significance:  Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded

the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process.
Inspection Report# : 2001002*(pdf)*

Barrier Integrity

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003
Inspection Report# : 2001002*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.
Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation.
Inspection Report# : 2001006*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.
Inspection Report# : 2000008*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumend duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance:  Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309).
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Last modified : March 28, 2002

South Texas 2

Initiating Events

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Mitigating Systems

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be

backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process.
Inspection Report# : 2001002*(pdf)*

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance: TBD Dec 29, 2001
Identified By: NRC
Item Type: AV Apparent Violation
Two procedures which were inappropriate to the circumstances resulted in Essential Cooling Water Pump 1C failure
The Train 1C essential cooling water pump failed during a postmaintenance test following maintenance on the pump. Bearing lubricating water channels were found to be blocked by foreign material introduced during the maintenance work. Additionally, operators failed to recognize the inadequate lubricating water flow and continued to run the pump for 10 minutes before it failed. The inspectors concluded that the operating and maintenance procedures were inappropriate to the circumstances. The maintenance procedures for rebuilding the pump did not adequately ensure that the appropriate cleanliness requirements were implemented during the work, and the portion of the operating procedure used to fill and vent the system following maintenance did not correctly incorporate vendor manual information to ensure timely verification of adequate cooling water flow. This was determined to be an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."
Inspection Report# : 2001006*(pdf)*

Significance: G Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically, no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary

Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Barrier Integrity

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003
Inspection Report# : 2001002*(pdf)*

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.
Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation.
Inspection Report# : 2001006*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.
Inspection Report# : 2000008*(pdf)*

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumend duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance:  Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309).
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Last modified : March 27, 2002

South Texas 2

Initiating Events

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Mitigating Systems

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process.
Inspection Report# : 2001002*(pdf)*

Significance: TBD Dec 29, 2001
Identified By: NRC
Item Type: AV Apparent Violation
Two procedures which were inappropriate to the circumstances resulted in Essential Cooling Water Pump 1C failure
The Train 1C essential cooling water pump failed during a postmaintenance test following maintenance on the pump. Bearing lubricating water channels were found to be blocked by foreign material introduced during the maintenance work. Additionally, operators failed to recognize the inadequate lubricating water flow and continued to run the pump for 10 minutes before it failed. The inspectors concluded that the operating and maintenance procedures were inappropriate to the circumstances. The maintenance procedures for rebuilding the pump did not adequately ensure that the appropriate cleanliness requirements were implemented during the work, and the portion of the operating procedure used to fill and vent the system following maintenance did not correctly incorporate vendor manual information to ensure timely verification of adequate cooling water flow. This was determined to be an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."
Inspection Report# : 2001006*(pdf)*

Significance: G Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically,

no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance: G Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Barrier Integrity

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003
Inspection Report# : 2001002*(pdf)*

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.
Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation.
Inspection Report# : 2001006*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumend duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance: G Sep 10, 2001

Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309).
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.
Inspection Report# : 2000008*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Last modified : March 26, 2002

South Texas 2

Initiating Events

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Mitigating Systems

Significance: TBD Dec 29, 2001
Identified By: NRC
Item Type: AV Apparent Violation
Two procedures which were inappropriate to the circumstances resulted in Essential Cooling Water Pump 1C failure
The Train 1C essential cooling water pump failed during a postmaintenance test following maintenance on the pump. Bearing lubricating water channels were found to be blocked by foreign material introduced during the maintenance work. Additionally, operators failed to recognize the inadequate lubricating water flow and continued to run the pump for 10 minutes before it failed. The inspectors concluded that the operating and maintenance procedures were inappropriate to the circumstances. The maintenance procedures for rebuilding the pump did not adequately ensure that the appropriate cleanliness requirements were implemented during the work, and the portion of the operating procedure used to fill and vent the system following maintenance did not correctly incorporate vendor manual information to ensure timely verification of adequate cooling water flow. This was determined to be an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."
Inspection Report# : 2001006*(pdf)*

Significance: G Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically, no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced

procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process.
Inspection Report# : 2001002*(pdf)*

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance: G Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was

operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Barrier Integrity

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003
Inspection Report# : 2001002*(pdf)*

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation.
Inspection Report# : 2001006*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.
Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumend duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance: G Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309).
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.
Inspection Report# : 2000008*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming

conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Last modified : March 01, 2002

South Texas 2

Initiating Events

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Mitigating Systems

Significance: G Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically, no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather. This issue was considered to be more than minor because it represented a potential for a repeat failure, which had a credible impact on safety, and could affect the operability, availability, reliability, and function of a train of accident mitigation equipment. This finding was determined to be of very low safety significance because two trains would remain available.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected. The safety significance of this condition is very low as the licensee performed an evaluation to determine that the valves were operable, and the evaluation was accepted by the team. Since the licensee entered this finding into their corrective action program in Condition Reports 2001-19637,-19641, and -19642, this violation is being treated as a noncited violation in accordance with Section VI.A.1 of the Enforcement Policy.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50. The licensee performed an evaluation which concluded that the Train D Pump would perform its safety function at the predicted elevated room temperature for the required mission time. The licensee had previously installed administrative requirements to assure that three pumps would be operable when required. Because of the very low safety significance, and because the licensee has included the item in their corrective action program as Condition Reports 2001-19586 and 2000-19700, this design control violation is a noncited violation (NCV 50-498/01-04-02; 50-499/01-04-02). in accordance with Section VI.A of the Enforcement Policy.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually. This event had no direct safety significance. The licensee would normally have sampled oil being used to fill a SDG FOST to verify that Technical Specification purity requirements were satisfied prior to filling. However, samples of SDG 12 FOST obtained after filling demonstrated that Technical Specification requirements were not violated. However, as with the earlier event, this issue was determined to be more than minor because the violation suggested a programmatic problem in procedure adherence that could have a realistic potential safety or regulatory impact. If left uncorrected, this violation would become a more significant safety and regulatory concern. Understanding and properly adhering to approved procedures is a key element of human performance necessary to support reactor safety.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the

associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840. This issue had an actual impact on safety because auxiliary feedwater was unintentionally made inoperable and nonfunctional. The violation for the procedure inappropriate to the circumstances was more than minor because of this actual impact on safety. The finding was of very low safety significance (Green) because only one of four trains of AFW was affected, impacting only the mitigation system cornerstone.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
Inspectors identified a noncited violation for failure to follow a procedure. Maintenance personnel replaced hydraulic fluid in Steam Generator Power Operated Relief Valve 1C without first having chemistry personnel sample the new fluid as specified in the maintenance procedure. The oil was later determined to be out-of-specification due to excessive water content. The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476.
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process. The licensee calculated that, if left uncorrected, power could have increased to just over 100.3 percent, which would not have challenged any safety limits. An inadvertent dilution is an initiating event analyzed in the Updated Final Safety Analysis Report, Chapter 15, and this event was bounded by that analysis. However, this issue was determined to be more than minor because the violation suggested a programmatic problem in procedure adherence that could

have a realistic potential safety or regulatory impact. If left uncorrected, this violation would become a more significant safety and regulatory concern, because understanding and properly adhering to approved procedures is a key element of human performance necessary to support reactor safety. This finding was determined to have very low safety significance (Green) because the operators were able to negate the effect of the error.
Inspection Report# : 2001002*(pdf)*

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance: G Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Barrier Integrity

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during

Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003.
Inspection Report# : 2001002*(pdf)*

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no actual over-exposure or substantial potential for an over-exposure, and the ability to assess dose was not compromised.
Inspection Report# : 2001006*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance

because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.
Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumed duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance: G Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309). The licensee calculated that, if left uncorrected, power could have increased to just over 100.3 percent, which would not have challenged any safety limits. An inadvertent dilution is an initiating event analyzed in the Updated Final Safety Analysis Report, Chapter 15, and this event was bounded by that analysis. However, this issue was determined to be more than minor because the violation suggested a programmatic problem in procedure adherence that could have a realistic potential safety or regulatory impact. If left uncorrected, this violation would become a more significant safety and regulatory concern, because understanding and properly adhering to approved procedures is a key element of human performance necessary to support reactor safety. This finding was determined to have very low safety significance (Green) because the operators were able to negate the effect of the error.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Jul 06, 2000

Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.
Inspection Report# : 2000008*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Last modified : July 22, 2002

South Texas 2

Initiating Events

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.
Inspection Report# : 2000007*(pdf)*

Mitigating Systems

Significance: G Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective

Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically, no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather. This issue was considered to be more than minor because it represented a potential for a repeat failure, which had a credible impact on safety, and could affect the operability, availability, reliability, and function of a train of accident mitigation equipment. This finding was determined to be of very low safety significance because two trains would remain available.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected. The safety significance of this condition is very low as the licensee performed an evaluation to determine that the valves were operable, and the evaluation was accepted by the team. Since the licensee entered this finding into their corrective action program in Condition Reports 2001-19637,-19641, and -19642, this violation is being treated as a noncited violation in accordance with Section VI.A.1 of the Enforcement Policy.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50. The licensee performed an evaluation which concluded that the Train D Pump would perform its safety function at the predicted elevated room temperature for the required mission time. The licensee had previously installed administrative requirements to assure that three pumps would be operable when required. Because of the very low safety significance, and because the licensee has included the item in their corrective action program as Condition

Reports 2001-19586 and 2000-19700, this design control violation is a noncited violation (NCV 50-498/01-04-02; 50-499/01-04-02). in accordance with Section VI.A of the Enforcement Policy.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually. This event had no direct safety significance. The licensee would normally have sampled oil being used to fill a SDG FOST to verify that Technical Specification purity requirements were satisfied prior to filling. However, samples of SDG 12 FOST obtained after filling demonstrated that Technical Specification requirements were not violated. However, as with the earlier event, this issue was determined to be more than minor because the violation suggested a programmatic problem in procedure adherence that could have a realistic potential safety or regulatory impact. If left uncorrected, this violation would become a more significant safety and regulatory concern. Understanding and properly adhering to approved procedures is a key element of human performance necessary to support reactor safety.
Inspection Report# : 2001006*(pdf)*

Significance: G Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840. This issue had an actual impact on safety because auxiliary feedwater was unintentionally made inoperable and nonfunctional. The violation for the procedure inappropriate to the circumstances was more than minor because of this actual impact on safety. The finding was of very low safety significance (Green) because only one of four trains of AFW was affected, impacting only the mitigation system cornerstone.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
Inspectors identified a noncited violation for failure to follow a procedure. Maintenance personnel replaced hydraulic fluid in Steam Generator Power Operated Relief Valve 1C without first having chemistry personnel sample the new fluid as specified in the maintenance procedure. The oil was later determined to be out-of-specification due to excessive water content. The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476.
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process. The licensee calculated that, if left uncorrected, power could have increased to just over 100.3 percent, which would not have challenged any safety limits. An inadvertent dilution is an initiating event analyzed in the Updated Final Safety Analysis Report, Chapter 15, and this

event was bounded by that analysis. However, this issue was determined to be more than minor because the violation suggested a programmatic problem in procedure adherence that could have a realistic potential safety or regulatory impact. If left uncorrected, this violation would become a more significant safety and regulatory concern, because understanding and properly adhering to approved procedures is a key element of human performance necessary to support reactor safety. This finding was determined to have very low safety significance (Green) because the operators were able to negate the effect of the error.
Inspection Report# : 2001002*(pdf)*

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance: G Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting

low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Barrier Integrity

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003.
Inspection Report# : 2001002*(pdf)*

Significance:  May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no actual over-exposure or substantial potential for an over-exposure, and the ability to assess dose was not compromised.
Inspection Report# : 2001006*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel

as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.
Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumed duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance: G Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309). The licensee calculated that, if left uncorrected, power could have increased to just over 100.3 percent, which would not have challenged any safety limits. An inadvertent dilution is an initiating event analyzed in the Updated Final Safety Analysis Report, Chapter 15, and this event was bounded by that analysis. However, this issue was determined to be more than minor because the violation suggested a programmatic problem in procedure adherence that could have a realistic potential safety or regulatory impact. If left uncorrected, this violation would become a more significant safety and regulatory concern, because understanding and properly adhering to approved

procedures is a key element of human performance necessary to support reactor safety. This finding was determined to have very low safety significance (Green) because the operators were able to negate the effect of the error.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001
Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.
Inspection Report# : 2000008*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Last modified : August 29, 2002

South Texas 2

Initiating Events

Significance: G Jul 07, 2002
Identified By: NRC
Item Type: FIN Finding
Licensee Did Not Align Safety-related Instrumentation to Diverse Power Sources, Contributing to a Reactor Trip When an Inverter Fuse Blew
On July 7, 2002, power was lost to the Train D instrumentation channel when the associated inverter blew a fuse. Because it was the licensee's practice to operate with all four controlling steam generator water level channels powered from that channel, the level instruments all failed low, causing the control system to increase feedwater flow to maximum. Operators were unable to gain manual control of four channels fast enough to control level and the unit tripped on high steam generator water level. The inspectors concluded that the licensee had not maintained an operating equipment lineup that would minimize events that upset plant stability and challenged safety functions. This performance deficiency was considered to be of more than minor significance because it affected the performance objective of the initiating events cornerstone by increasing the likelihood of a plant trip or transient. The issue was screened as Green using Phase 1 of the Significance Determination Process.
Inspection Report# : 2002004*(pdf)*

Significance: G Feb 07, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Inadequate Procedure for Switching Offsite Power Transformers Leads to Manual Trip
On February 7, 2001, Unit 2 operators improperly executed an attempt to transfer a pair of 13.8KV buses from one offsite power transformer to another, de-energizing the buses. One train of engineered safety feature (ESF) equipment lost power and was reenergized from its standby diesel generator. Operators manually tripped the reactor in response to loss of power to Reactor Coolant Pump 2A. The event was caused by operator error, lack of procedure guidance, time pressure to satisfy breaker interlocks, improper communications, and lack of supervision. Failure to provide adequate procedural steps to transfer offsite power sources was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-2270. This issue had a credible impact on safety and could be viewed as a precursor to a more significant event. The errors removed the preferred offsite power from Train A safety equipment, challenging the ESF diesel and reducing the reliability of accident mitigation equipment in that train. The safety significance of this human performance related event was determined to be very low because all mitigation equipment remained available.
Inspection Report# : 2000014*(pdf)*

Significance: G May 07, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
Power transient during maintenance activity due to inadequate balance of plant calibration procedure.
An uncontrolled power increase from full power occurred in Unit 2 while calibrating a deaerator level instrument in the steam plant. The procedure, which was normally performed when the plant was shutdown, did not alert the technicians to the effects of performing the procedure while at power. Operator action terminated the power increase at a peak of 103.7 percent and restored power below 100 percent within 3 minutes. This issue was characterized as a "green" finding using the significance determination process. It was of very low risk significance due to the brief duration of the transient and no thermohydraulic limits were exceeded.

Inspection Report# : 2000007*(pdf)*

Mitigating Systems

Significance: G Dec 21, 2001
Identified By: NRC
Item Type: FIN Finding
Following An Event In Which Minnows Clogged ECW Train 1C, The Licensee Was Slow to Identify and Implement Effective Actions From A Safety Perspective
Following an event in which Train C of the Unit 1essential cooling water system was rendered inoperable because the discharge strainer in Train 1C clogged with small fish, the licensee was slow to identify and implement actions which would have effectively prevented recurrence. Specifically, no effective barriers were identified which would have prevented a buildup of fish in an idle train suction bay during a rapid drop in temperature in the essential cooling pond similar to that which occurred during the event. The initial corrective actions did not assure that the licensee would have effectively monitored for an increase in the fish population and did not include any specific steps to prevent a train from being rendered inoperable if an increase was detected. The licensee added actions to chlorinate idle intake bays at least daily, improve monitoring, and identify a response plan if a buildup of fish was detected. The inspectors concluded that this provided a reasonable barrier to fish population increases in the bays, even during a period of cold weather. This issue was considered to be more than minor because it represented a potential for a repeat failure, which had a credible impact on safety, and could affect the operability, availability, reliability, and function of a train of accident mitigation equipment. This finding was determined to be of very low safety significance because two trains would remain available.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Corrective Action
The team determined that the licensee failed to identify the need for and implement corrective action to address the degraded condition of Steam Generator Power-Operated Relief Valves, 2MSPV7411, 2MSPV7431, and 2MSPV7441 for a period of four weeks, until prompted by the inspection team. The licensees corrective action program did not promptly evaluate the out-of-specification condition of the electrohydraulic fluid for the steam generator power operated relief valves. Analysis results received in early November for oil samples drawn in late October 2001 were not reviewed and assessed by the licensee's engineering staff until December 6, 2001, when questioned by the inspection team. Three sample results exceeded the licensee's criteria. This was a violation of Criterion XVI of Appendix B to 10CFR50, Corrective Action, which requires that conditions adverse to quality be promptly identified and corrected. The safety significance of this condition is very low as the licensee performed an evaluation to determine that the valves were operable, and the evaluation was accepted by the team. Since the licensee entered this finding into their corrective action program in Condition Reports 2001-19637,-19641, and -19642, this violation is being treated as a noncited violation in accordance with Section VI.A.1 of the Enforcement Policy.
Inspection Report# : 2001004*(pdf)*

Significance: G Dec 06, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assure Adequate Design
The measures established by the licensee to assure that the current design would support the safety analysis were not adequate. The team identified a failure to verify the adequacy of the plant design in both units to support the current

safety analysis for a loss of normal feedwater event. The failure of the A Train Emergency Diesel Generator with a loss of offsite power could result in the loss of two of the four auxiliary feedwater pumps. The safety analysis for loss of normal feedwater assumes that three pumps will be available. The Train D (Turbine-Driven) Pump cannot be assumed to be available as the essential power for the Train D pump room cooling is supplied from Train A essential power which also supplies the Train A (Electric-Driven) pump. This was identified as a violation of Criterion III of Appendix B to 10 CFR Part 50. The licensee performed an evaluation which concluded that the Train D Pump would perform its safety function at the predicted elevated room temperature for the required mission time. The licensee had previously installed administrative requirements to assure that three pumps would be operable when required. Because of the very low safety significance, and because the licensee has included the item in their corrective action program as Condition Reports 2001-19586 and 2000-19700, this design control violation is a noncited violation (NCV 50-498/01-04-02; 50-499/01-04-02). in accordance with Section VI.A of the Enforcement Policy.
Inspection Report# : 2001004*(pdf)*

Significance: N/A Nov 20, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to satisfy procedure prerequisite leads to inadvertent filling of ESF diesel fuel oil storage tank without verifying satisfactory chemistry
Operators failed to recognize that two routine evolutions using the fuel oil storage and transfer system conflicted because they did not properly verify that the prerequisites were satisfied. When an attempt was made to add fuel oil to the technical support center diesel day tank, the fuel oil storage tank (FOST) for standby diesel generator (SDG) 12 was filled instead. Failure to satisfy prerequisites for 0POP02-FO-0001 was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation constitutes an additional example of a previously identified violation (NCV 499/2001005-02) and is not being cited individually. This event had no direct safety significance. The licensee would normally have sampled oil being used to fill a SDG FOST to verify that Technical Specification purity requirements were satisfied prior to filling. However, samples of SDG 12 FOST obtained after filling demonstrated that Technical Specification requirements were not violated. However, as with the earlier event, this issue was determined to be more than minor because the violation suggested a programmatic problem in procedure adherence that could have a realistic potential safety or regulatory impact. If left uncorrected, this violation would become a more significant safety and regulatory concern. Understanding and properly adhering to approved procedures is a key element of human performance necessary to support reactor safety.
Inspection Report# : 2001006*(pdf)*

Significance:  Sep 18, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Load Sequencer Maintenance Resulted in De-energized ESF Bus and Inoperable Auxiliary Feedwater Train
The licensee did not recognize that performing maintenance on the Train 1C engineered safety features (ESF) load sequencer rendered Auxiliary Feedwater (AFW) Pump 1C inoperable. A defective new part was not bench-tested, and caused a load shed and deenergized an ESF bus when the load sequencer was energized for testing. The bus had to be manually reenergized because the associated standby diesel generator was out of service. A noncited violation was identified for Work Order 212619, a procedure required by Technical Specification 6.8.1 and Regulatory Guide 1.33, which was inappropriate to the circumstances. This issue was in the licensee's corrective action program under Condition Report 01-14840. This issue had an actual impact on safety because auxiliary feedwater was unintentionally made inoperable and nonfunctional. The violation for the procedure inappropriate to the circumstances was more than minor because of this actual impact on safety. The finding was of very low safety significance (Green) because only one of four trains of AFW was affected, impacting only the mitigation system cornerstone.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Sep 18, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to have a required procedure for restoring emergency AC bus power from the normal source.
Failure to have a procedure to energize an emergency AC bus from its normal source of power, a procedure required by

Technical Specification 6.8.1 and Regulatory Guide 1.33 (Reference Condition Report 01-14699).
Inspection Report# : 2001005*(pdf)*

Significance: G May 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures resulted in replacing hydraulic oil in steam generator power operated relief valve with out-of-specification oil
Inspectors identified a noncited violation for failure to follow a procedure. Maintenance personnel replaced hydraulic fluid in Steam Generator Power Operated Relief Valve 1C without first having chemistry personnel sample the new fluid as specified in the maintenance procedure. The oil was later determined to be out-of-specification due to excessive water content. The safety significance of this issue was determined to be very low (Green) because the oil was determined to be within limits that support operability of the steam generator power operated relief valve. However, if left uncorrected this issue could become a more significant safety concern and could credibly affect the reliability of safety equipment supplied with oil from this tank. Failure to follow 0PMP04-SG-0007, Revision 10, "Steam Generator PORV Hydraulic Actuator Maintenance," was a violation of Technical Specification 6.8.1, for a Regulatory Guide 1.33 referenced procedure. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 01-9476.
Inspection Report# : 2001002*(pdf)*

Significance: N/A May 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to maintain adequate design control for the packing system of a primary isolation valve.
Report The licensee identified a violation for configuration control due to the first isolation valve from the reactor coolant system, in the letdown line, having an inappropriate packing configuration. This manual valve had been changed from a dual packing arrangement with a leakoff line between packing sets to a single packing configuration. However, the single set of packing was above the leakoff line such that the valve had to be backseated to keep reactor coolant from leaking to the reactor coolant drain tank. This issue was an example of inadequate design control, contrary to 10 CFR 50, Appendix B, Criterion III. This violation is being treated as a noncited violation. Reference Condition 01-5556.
Inspection Report# : 2001002*(pdf)*

Significance: G May 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate tagging control results in partially draining a safety injection accumulator
The inspectors identified a noncited violation for failure to ensure adequate system alignment was maintained. Following modifications to the safety injection test header, freeze seals were melted without first establishing the correct system alignment. Operators repeatedly vented the system without recognizing that this drained water from the 2C safety injection accumulator until after it was drained below the Technical Specification minimum level. This issue was considered to be a cross-cutting issue for both human performance and problem identification and resolution. Human performance problems, in the form of inadequate communications about and review of isolation boundaries, and limited understanding of the impact of the multiple operations of the same system, were the cause of draining water from the safety injection accumulator. Operators were slow to respond to indications of lowering accumulator level and identify the cause. Further, this issue was under-classified by the licensee for significance, such that no probable cause determination or corrective actions beyond restoring operability were initiated until the inspectors brought the significance of the event to licensee management's attention. As a result, this was also considered to be a finding against the licensee's problem identification and resolution process. The licensee calculated that, if left uncorrected, power could have increased to just over 100.3 percent, which would not have challenged any safety limits. An inadvertent dilution is an initiating event analyzed in the Updated Final Safety Analysis Report, Chapter 15, and this event was bounded by that analysis. However, this issue was determined to be more than minor because the violation

suggested a programmatic problem in procedure adherence that could have a realistic potential safety or regulatory impact. If left uncorrected, this violation would become a more significant safety and regulatory concern, because understanding and properly adhering to approved procedures is a key element of human performance necessary to support reactor safety. This finding was determined to have very low safety significance (Green) because the operators were able to negate the effect of the error.
Inspection Report# : 2001002*(pdf)*

Significance: G Sep 29, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Workers Left a Tool In Containment Recirculation Sump Following Work. Maintenance Procedure Had Inadequate Foreign Material Controls
The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train.
Inspection Report# : 2000012*(pdf)*

Significance: G Aug 29, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Criterion III violation for failure to maintain Breaker E2C1 configuration in accordance with its design basis.
When a 480V safety bus feeder breaker unexpectedly tripped, the licensee determined that the breaker had been installed for 10 months with the overcurrent trip setpoint too low to fulfill the breaker's function of supplying safety related loads on Bus E2C1. This was determined to be a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the station's procedures did not control the configuration of replacement breakers to ensure that the design basis of the breaker was satisfied. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. The issue was placed into the licensee's problem identification and resolution program as Condition Report 00-13689. The safety significance of this finding was very low because the licensee had the ability to restore power to all critical loads in a prompt manner using existing procedures and training.
Inspection Report# : 2000011*(pdf)*

Significance: G Apr 18, 2000
Identified By: Licensee
Item Type: FIN Finding
Incomplete impact review of outage work tagout resulted in declaring a train of equipment inoperable in the operating unit.
Unit 1 operators did not thoroughly determine the impact of a tagout to deenergize an electrical panel before authorizing the tags. This caused an unexpected loss of a portion of the instrument air system that impacted safety cooling water systems for both units. Operators in Unit 2, which was operating at full power, responded to the resulting low intake bay level in the Train C essential cooling water system by declaring the train, and thus all supported equipment, inoperable. This issue was characterized as a "green" finding using the significance determination process. It was determined to have very low risk significance because the remaining two trains of ESF equipment were sufficient to maintain mitigating system capability.
Inspection Report# : 2000007*(pdf)*

Barrier Integrity

Significance: G Aug 29, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow a Procedure to Update AFD Computer Constants as Required by TS 6.8.1 and Reg. Guide 1.33
Instrumentation and controls technicians did not ensure that computer constants needed to calculate axial flux difference were updated during calibrations of the nuclear instruments as required by the calibration procedures. The plant computer was the only method used to calculate core axial flux difference, and to alarm if limits were approached. This failure to follow procedures was a non-cited violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. The axial flux difference function was still operable with the old constants not properly updated for two channels, since the computer constants had changed by a small amount. However, this issue was considered to be more than minor because, if left uncorrected, it would be of greater safety concern because instrument inaccuracies could increase over time as the core burned up and detectors aged. The error affected operators' ability to maintain reactor power distribution within limits in order to protect the fuel clad barrier. This issue screened as a Green issue using Phase 1 of the Significance Determination Process because only the fuel clad barrier was potentially affected.
Inspection Report# : 2002004*(pdf)*

Significance: N/A Apr 19, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
A steam generator tube was not inspected under the 100 percent expanded eddy current examination requirement invoked by TS 4.4.5.2.
A violation of Technical Specification 4.4.5.2 was identified for the failure to perform an expanded eddy current examination of all inservice steam generator tubes when the defect threshold was been exceeded. In February 1997, during Refueling Outage 2RE05, the defect threshold was exceeded and the Technical Specification requirement was invoked. On October 16, 1998, during Refueling Outage 2RE06, it was discovered that Tube R02C59 in Unit 2 Steam Generator 2B was inadvertently not examined as required during the previous refueling outage. Thus, the steam generator was operated in this condition for a full cycle in violation of the Technical Specification. During subsequent examination of Tube R02C59, it was determined that no indications or defects existed. This issue was characterized as a No Color finding in accordance with Manual Chapter 0610, in that no Group 2 questions were affirmative and Group 3 questions indicated the issue was greater than minor and was being documented to close a licensee event report. This condition was identified by the licensee and corrective actions were specified in Nonconformance Report NR-THX-98-002, and reported in Licensee Event Report 50-499/1998-003.
Inspection Report# : 2001002*(pdf)*

Significance: G May 06, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Condition outside licensing basis identified and corrected.
During a design review for the replacement steam generators, the licensee identified that both units were outside their licensing basis because both charging pumps restarted automatically upon a loss of offsite power. The safety analysis for loss of offsite power assumed that the charging pumps would not restart upon a loss of power because this condition may result in overfilling the pressurizer. The licensee promptly modified both units to restore the facility to within the license basis. The failure to properly incorporate the licensing basis into the plant as-built design was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Condition Report 00-3229. This violation was characterized as a "green" issue using the significance determination process. It was determined to have very low risk significance because the existing plant configuration (power-operated relief valve

capacity) was sufficient to prevent challenging the pressurizer safety valves. To create a loss of reactor coolant system integrity via the power-operated relief valves would require a loss of offsite power, a power-operated relief valve failure, and a power-operated relief valve block valve failure, which is a low probability scenario.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Oct 13, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Technical Specification 6.8.1 requires procedures for the radiation work permit system.
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 14, requires radiation workers to review and comply with applicable radiation work permit [requirements]. On February 20 and October 13, 2001, four workers using two different radiation work permits did not comply with the applicable requirements of their permits, as described in the licensee's corrective action program, reference Condition Reports 01-2916 and 01-16500. This violation is being treated as a noncited violation. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no actual over-exposure or substantial potential for an over-exposure, and the ability to assess dose was not compromised.
Inspection Report# : 2001006*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the storage of radioactive materials
On March 13-14, 2001, the inspector identified two occasions when radiation protection personnel failed to keep radiation workers informed of the storage of radioactive materials on the 19 foot elevation inside the biological shield-wall of the Unit 2 reactor containment building. 10 CFR Part 19, Section 19.12(a) states, in part, that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 millirem shall be kept informed of the storage, transfer, or use of radiation and/or radioactive material. The failure to keep radiation workers informed of the storage of radioactive materials is a violation of 10 CFR 19.12(a). These two examples of a violation are being treated as a noncited violation and are in the licensee's corrective action program as Condition Reports 01-4268 and 01-4307. This noncited violation was characterized as a Green finding using the Occupational Radiation Safety Significance Determination Process. This issue was determined to be of very low safety significance because these incidents did not result in an overexposure, or have a substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2000014*(pdf)*

Significance: G Mar 16, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Section 4.4 of Plant General Procedure 0PGP03-ZR-0051, "Radiological Access and Work Controls," Revision 13, states, in part, radiation workers

will review and comply with applicable radiation work permit [requirements]. On March 8, 2001, six workers entered a high radiation area using a radiation work permit that did not allow entry into high radiation areas. On March 9, 2001, two workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. On March 12, 2001, four workers entered an overhead area in the reactor containment building without contacting health physics personnel as required by their radiation work permit. These events are described in the licensee's corrective action program, reference Condition Reports CR01-3767, CR01-3951, and CR01-4135 (respectively).
Inspection Report# : 2000014*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to wear required dosimetry when entering a high radiation area
Technical Specification 6.12.1 requires, in part, any individual entering a high radiation area be provided a radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. On October 24, 1999, an individual entered a high radiation area without an alarming dosimeter as described in the licensee's corrective action program, reference CR 99-14992.
Inspection Report# : 2000013*(pdf)*

Significance: G Nov 16, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure 0PRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.
Inspection Report# : 2000013*(pdf)*

Public Radiation Safety

Significance: G Jan 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to list all required radionuclides on shipping papers
49 CFR 173.433 requires that shipping papers list 95 percent of the most abundant radionuclides based on their A2 values (used to determine proper waste classification). On October 21, 1998, Radwaste Shipment 2-98-0035 consisting of 13 containers of surface contaminated objects did not list 95 percent of the most abundant radionuclides contained in the shipment, as described in the licensee's corrective action program, reference Condition Report 99-1913.
Inspection Report# : 2000014*(pdf)*

Physical Protection

Significance: G Apr 05, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to revoke an individual's unescorted access when an individual was terminated.
The failure to revoke an individual's unescorted access when an individual was terminated and no longer required unescorted access, was a violation of Section 4.1 of the physical security plan and paragraph 8.5 of procedure OPGP09-ZA-0001, Revision 11. This violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Record 00-6209. This closed LER 498;499/2000-S01.00. This noncited violation was characterized as a "green" finding using the physical protection significant determination process. The violation had very low risk significance (green) because there were no more than two similar findings in the last four quarters.
Inspection Report# : 2000008*(pdf)*

Miscellaneous

Significance: N/A Sep 23, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Reactor Operator assumed duties with inactive license.
Reactor operator assumes control room watch with an inactive license contrary to 10 CFR 55.53 (Reference Condition Report 00-11749).
Inspection Report# : 2001005*(pdf)*

Significance: G Sep 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Satisfy Procedure Prerequisite Leads to Inadvertent Dilution; The cause was not determined because the event was underclassified.
Operators failed to recognize that two routine evolutions using the chemical and volume control system conflicted. When they attempted to add borated water to the system, only pure water was added, challenging operators to take action to avoid an unintended power increase above 100 percent. The inspectors concluded that the root cause of this event was a failure to recognize that the plant was not in the configuration required by the procedure in use, in part because of a culture that permitted a loose interpretation of what constituted the required system alignment. The licensee's corrective action program underclassified the significance of this event, and as a result did not adequately identify the cause. It was initially treated as minor because operators were able to negate the effect of the error. The inspectors concluded that this should have been treated as a reactivity management event as defined in the licensee's procedures. Failure to follow 0POP02-CV-0001, "Makeup to the Reactor Coolant System," Revision 17, was a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. This violation is being treated as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy (Reference Condition Reports 01-14307 and 01-14309). The licensee calculated that, if left uncorrected, power could have increased to just over 100.3 percent, which would not have challenged any safety limits. An inadvertent dilution is an initiating event analyzed in the Updated Final Safety Analysis Report, Chapter 15, and this event was bounded by that analysis. However, this issue was determined to be more than minor because the violation suggested a programmatic problem in procedure adherence that could have a realistic potential safety or regulatory impact. If left uncorrected, this violation would become a more significant safety and regulatory concern, because understanding and properly adhering to approved procedures is a key element of human performance necessary to support reactor safety. This finding was determined to have very low safety significance (Green) because the operators were able to negate the effect of the error.
Inspection Report# : 2001005*(pdf)*

Significance: N/A Jun 14, 2001

Identified By: NRC
Item Type: FIN Finding
Licensee's problem identification and resolution program was effective.
The licensee adequately identified problems and placed them in the corrective action program. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. However, the team identified examples where the evaluations were not clearly documented. With minor exceptions, corrective actions were implemented in a timely manner. Corrective actions to prevent recurrence of conditions adverse to quality were effective. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site felt free to input safety issues into the problem identification and resolution program.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Jul 06, 2000
Identified By: NRC
Item Type: FIN Finding
The facility's corrective action program was effective.
The team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. In most instances, the licensee implemented corrective actions that were timely and effective. However the team observed two isolated cases in which corrective actions were ineffective. The cases involved security access authorization and access control.
Inspection Report# : 2000008*(pdf)*

Significance: N/A Jun 24, 2000
Identified By: NRC
Item Type: FIN Finding
Programmatic controls did not ensure corrective actions were timely.
Inspectors identified that the licensee did not have specific programmatic controls to ensure that corrective actions for degraded or non-conforming conditions were completed within an appropriate time frame. In one example, the licensee delayed correcting a material-related nonconforming condition in a cooling water line to Standby Diesel Generator 21 five times, including the next refueling outage, without formally evaluating the acceptability of the schedule delays. In this case, the licensee was able to adequately justify delaying the work and no specific safety concerns were identified. Because of the programmatic implications, this was determined to be a finding of no color as a cross-cutting issue dealing with problem identification and resolution
Inspection Report# : 2000009*(pdf)*

Last modified : December 02, 2002

South Texas 2

Initiating Events

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: FIN Finding
Licensee was not Monitoring or Addressing Declining Performance in Circulating Water System, Resulting in Catastrophic Pump Failure and Plant Trip
A finding was identified for PI&R selected issue followup. The licensee was not adequately monitoring the declining performance of the circulating water system and treated problems with this system symptomatically rather than finding the cause. Several near-miss failures were experienced which could have resulted in plant trips. Failing to assess the cause of system problems contributed to a pump discharge valve becoming separated from the operator and slamming shut, catastrophic failure of the pump, and a plant trip. The safety significance associated with this issue was very low because it resulted in a manual plant trip with all safety-related equipment available to provide mitigation capability. The issue affected the performance objectives of the initiating events cornerstone for design control, and screened as Green during a Phase 1 SDP evaluation.
Inspection Report# : 2002005*(pdf)*

Significance: G Jul 07, 2002
Identified By: NRC
Item Type: FIN Finding
Licensee Did Not Align Safety-related Instrumentation to Diverse Power Sources, Contributing to a Reactor Trip When an Inverter Fuse Blew
On July 7, 2002, power was lost to the Train D instrumentation channel when the associated inverter blew a fuse. Because it was the licensee's practice to operate with all four controlling steam generator water level channels powered from that channel, the level instruments all failed low, causing the control system to increase feedwater flow to maximum. Operators were unable to gain manual control of four channels fast enough to control level and the unit tripped on high steam generator water level. The inspectors concluded that the licensee had not maintained an operating equipment lineup that would minimize events that upset plant stability and challenged safety functions. This performance deficiency was considered to be of more than minor significance because it affected the performance objective of the initiating events cornerstone by increasing the likelihood of a plant trip or transient. The issue was screened as Green using Phase 1 of the Significance Determination Process.
Inspection Report# : 2002004*(pdf)*

Mitigating Systems

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Noncited Violation for Improper Design Control due to Undersized Overload Heaters Being installed in SG PORVs During Breaker Replacement
The licensee did not properly control or review vendor design work when upgrading safety related 480V motor control center breaker units. As a result, the breakers for the hydraulic pumps for Steam Generator Power Operated Relief Valves 1B, 2B and 2C had undersized overload heaters installed, such that the valves would not have functioned as designed during periods of prolonged use or under degraded voltage conditions. Failure to assure that the design change for installing replacement 480V breaker units satisfied design requirements was a violation of 10 CFR 50, Appendix B, Criterion III, "Design Control." This violation is being treated as a noncited violation (NCV), consistent with Section VI.A of the Enforcement Policy. The safety significance of this issue was determined to be very low safety significance since this issue screened as Green during a Phase 1 significance determination process (SDP) assessment. The issue was considered more than minor because it affected the mitigating system cornerstone objective for design control and plant modifications by affecting the reliability of a system that responds to initiating events to prevent undesirable consequences
Inspection Report# : 2002005*(pdf)*

Barrier Integrity

Significance: G Dec 21, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Steam Generator Replacement
The South Texas Project Unit 2 steam generator replacement project was inspected utilizing the guidance in Inspection Procedure 50001, "Steam Generator Replacement Inspection," in a series of three inspection reports (50-498;499/02-07, 02-08, and 02-09). These inspections covered design and planning, steam generator removal and replacement, and postinstallation verification and testing. The inspections were conducted by resident and region-based engineering and plant support inspectors. The steam generator replacement outage was well planned and executed. The attention to lessons learned from the previous steam generator replacement outage were very effective in preventing recurrence of problems. Plant conditions were carefully controlled to minimize risk during construction activities.
Inspection Report# : 2002009*(pdf)*

Significance: G Aug 29, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow a Procedure to Update AFD Computer Constants as Required by TS 6.8.1 and Reg. Guide 1.33
Instrumentation and controls technicians did not ensure that computer constants needed to calculate axial flux difference were updated during calibrations of the nuclear instruments as required by the calibration procedures. The plant computer was the only method used to calculate core axial flux difference, and to alarm if limits were approached. This failure to follow procedures was a non-cited violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. The axial flux difference function was still operable with the old constants not properly updated for two channels, since the computer constants had changed by a small amount. However, this issue was considered to be more than minor because, if left uncorrected, it would be of greater safety concern because instrument inaccuracies could increase over time as the core burned up and detectors aged. The error affected operators' ability to maintain reactor power distribution within limits in order to protect the fuel clad barrier. This issue screened as a Green issue using Phase 1 of the Significance Determination Process because only the fuel clad barrier was potentially affected.
Inspection Report# : 2002004*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

Last modified : March 25, 2003

South Texas 2
1Q/2003 Plant Inspection Findings

Initiating Events

Significance: G Mar 09, 2003
Identified By: NRC
Item Type: FIN Finding
Operators failed to control reactor coolant system pressure, causing the lifting of a pressurizer power operated relief valve.
A finding was identified relating to operator performance during the safety injection event. Operators became distracted and failed to control reactor coolant system pressure while operating the system in the manual mode, causing the lifting of a pressurizer power-operated relief valve. A human performance problem was identified for inattention to detail in monitoring primary plant pressure and understanding the operation of the master pressure controller, which led to challenging the reactor coolant system barrier integrity. This issue was more than minor because it affected the Initiating Events and Barrier Integrity Cornerstone objectives, which required a Phase 2 evaluation. The human performance issue was determined to have very low safety significance using a Phase 2 Significance Determination Process evaluation by assuming all mitigation equipment remained available, but the initiating event frequency for events which could challenge pressurizer power-operated relief valves increased by a factor of 10, in accordance with Manual Chapter 0609 guidance.
Inspection Report# : 2002006*(pdf)*

Significance: G Mar 09, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate procedures permitting maintaining hot standby plant conditions with the main steam lines isolated without establishing precautions to drain accumulated condensate contributed to an inadver
A noncited violation with three examples was identified for three inadequate procedures required by Technical Specification 6.8.1.a and Regulatory Guide 1.33 that permitted maintaining hot standby plant conditions with the main steam lines isolated without establishing precautions to drain accumulated condensate. This contributed to an inadvertent safety injection actuation while initiating decay heat removal from an idle steam line. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-499/2002006-01). This issue was entered in the licensee's corrective action program under Condition Report 03-3694. This violation was more than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions through configuration control of the shutdown equipment alignment. This issue was determined to be of very low safety significance using Appendix G of the Significance Determination Process because it did not challenge defense in depth measures or equipment.
Inspection Report# : 2002006*(pdf)*

Significance: G Mar 01, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Condensate polisher system not within the scope of the Maintenance Rule Program as a system whose failure

could cause a reactor trip.
A noncited violation of 10 CFR 50.65 was identified for not including the condensate polisher system within the scope of the Maintenance Rule Program as a system whose failure could cause a reactor trip. Unit 1 tripped on March 1, 2003, when a power supply that was original equipment failed. The power supply had no preventive maintenance item to periodically replace it, even though it controlled condensate flow through the condensate polishers and the condensate system function to automatically bypass the condensate polishers in the event of a high differential pressure condition. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-498/2002006-05). This issue was entered into the licensee's corrective action program under Condition Report 03-1837. This issue screened as Green using Phase 1 of the Significance Determination Process because it affected only one cornerstone and did not reduce the availability of mitigation equipment. This issue was more than minor because it affected the initiating events cornerstone objective to limit the likelihood of events that upset plant stability due to equipment reliability.
Inspection Report# : 2002006*(pdf)*

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: FIN Finding
Licensee was not Monitoring or Addressing Declining Performance in Circulating Water System, Resulting in Catastrophic Pump Failure and Plant Trip
A finding was identified for PI&R selected issue followup. The licensee was not adequately monitoring the declining performance of the circulating water system and treated problems with this system symptomatically rather than finding the cause. Several near-miss failures were experienced which could have resulted in plant trips. Failing to assess the cause of system problems contributed to a pump discharge valve becoming separated from the operator and slamming shut, catastrophic failure of the pump, and a plant trip. The safety significance associated with this issue was very low because it resulted in a manual plant trip with all safety-related equipment available to provide mitigation capability. The issue affected the performance objectives of the initiating events cornerstone for design control, and screened as Green during a Phase 1 SDP evaluation.
Inspection Report# : 2002005*(pdf)*

Significance: G Jul 07, 2002
Identified By: NRC
Item Type: FIN Finding
Licensee Did Not Align Safety-related Instrumentation to Diverse Power Sources, Contributing to a Reactor Trip When an Inverter Fuse Blew
On July 7, 2002, power was lost to the Train D instrumentation channel when the associated inverter blew a fuse. Because it was the licensee's practice to operate with all four controlling steam generator water level channels powered from that channel, the level instruments all failed low, causing the control system to increase feedwater flow to maximum. Operators were unable to gain manual control of four channels fast enough to control level and the unit tripped on high steam generator water level. The inspectors concluded that the licensee had not maintained an operating equipment lineup that would minimize events that upset plant stability and challenged safety functions. This performance deficiency was considered to be of more than minor significance because it affected the performance objective of the initiating events cornerstone by increasing the likelihood of a plant trip or transient. The issue was screened as Green using Phase 1 of the Significance Determination Process.
Inspection Report# : 2002004*(pdf)*

Mitigating Systems

Significance: G Jan 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Improper maintenance to mechanism operated cell switch prevented the sequencer to initiate loading.
A noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for failure to have adequate maintenance procedures for mechanism-operated cell switches in circuit breakers. A fault affecting one switchyard bus caused a partial loss of offsite power in each unit. The Unit 1 Train B standby diesel generator started but failed to automatically sequence loads as designed. Maintenance personnel identified that the operating mechanism for the cell switch was out of adjustment, preventing the switch from rotating fully and making full electrical contact that would cause the sequencer to initiate loading. The operating mechanism adjustment was not checked when the breaker was swapped a year earlier, and the misadjustment was sufficiently small that the switch functioned until this actual demand. The inspectors noted that the licensee did not have a maintenance procedure or preventive maintenance item to adjust, lubricate, clean, or fully test any of the mechanism operated cell switches onsite. Failure to procedurally verify the proper adjustment and operation of the motor-operated cell switch following breaker replacement was a violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-498/2002006-03). This issue was entered into the licensee's corrective action program under Condition Report 03-928.
Inspection Report# : 2002006*(pdf)*

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Noncited Violation for Improper Design Control due to Undersized Overload Heaters Being installed in SG PORVs During Breaker Replacement
The licensee did not properly control or review vendor design work when upgrading safety related 480V motor control center breaker units. As a result, the breakers for the hydraulic pumps for Steam Generator Power Operated Relief Valves 1B, 2B and 2C had undersized overload heaters installed, such that the valves would not have functioned as designed during periods of prolonged use or under degraded voltage conditions. Failure to assure that the design change for installing replacement 480V breaker units satisfied design requirements was a violation of 10 CFR 50, Appendix B, Criterion III, "Design Control." This violation is being treated as a noncited violation (NCV), consistent with Section VI.A of the Enforcement Policy. The safety significance of this issue was determined to be very low safety significance since this issue screened as Green during a Phase 1 significance determination process (SDP) assessment. The issue was considered more than minor because it affected the mitigating system cornerstone objective for design control and plant modifications by affecting the reliability of a system that responds to initiating events to prevent undesirable consequences
Inspection Report# : 2002005*(pdf)*

Barrier Integrity

Significance: G Mar 22, 2003
Identified By: NRC

Item Type: FIN Finding
Poor maintenance practices associated with foreign material exclusion caused two main steam isolation valves to not fully close as designed.
A finding was identified for poor maintenance practices that caused main steam isolation valves to not fully close as designed. The inspectors determined that the maintenance personnel demonstrated a problem with maintenance effectiveness in that poor system cleanliness practices during maintenance contributed to two main steam isolation valves' inability to operate/isolate as designed. Even though the licensee engineers determined that the valve design limited the amount of possible steam leakage to within analyzed limits for accident analyses, this issue caused the plant to experience a cooldown cycle twice to effect repairs. This issue was considered more than minor because the human performance issue of poor maintenance performance in foreign material control while rebuilding main steam isolation valves affected the barrier integrity cornerstone. The safety significance of this issue was determined to be very low since the valves were capable of limiting steam flow within design requirements and since it screened as Green using a Phase 1 assessment of the Significance Determination Process. This issue is in the licensee's corrective action program under Condition Reports 02-19118, 02-19149, and 03-1325.
Inspection Report# : 2002006*(pdf)*

Significance:  Jan 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate procedure for restoring reactor coolant pumps caused a pressurizer power operated relief valve to lift.
A noncited violation was identified for an inadequate procedure. A fault affecting one switchyard bus caused a partial loss of offsite power in each unit. Unit 2 lost power to both running reactor coolant pumps, and when operators attempted to restore them, a pressurizer power operated relief valve lifted. Plant Operating Procedure 0POP02-RC-0004, "Operation of Reactor Coolant Pump," Revision 19, was determined to be inadequate because it contained prerequisites for starting an initial reactor coolant pump which conflicted with (and caused operators to disregard) precautions to be aware of and limit pressure transients during reactor coolant pump starts. This was considered to be a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33 for an inadequate procedure. Additionally, weaknesses were identified in operator understanding of the impact of their actions on the existing plant conditions and the operation of the pressurizer pressure control system. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-499/2002006-04). This issues was entered into the licensee's corrective action program under Condition Report 03-949. This issue was more than minor because it affected objectives of the barrier integrity and initiating events cornerstones, which required a Phase 2 evaluation. This issue was determined to be of very low safety significance using a Significance Determination Process Phase 2 evaluation. The inspectors assumed that all mitigation equipment remained available, but the initiating events that could challenge a pressurizer power operated relief valve had the frequency of occurrence increased by a factor of 10, in accordance with Manual Chapter 0609 guidance.
Inspection Report# : 2002006*(pdf)*

Significance:  Dec 21, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Steam Generator Replacement
The South Texas Project Unit 2 steam generator replacement project was inspected utilizing the guidance in Inspection Procedure 50001, "Steam Generator Replacement Inspection," in a series of three inspection reports (50-498;499/02-07, 02-08, and 02-09). These inspections covered design and planning, steam generator removal and replacement, and postinstallation verification and testing. The inspections were conducted by resident and region-based engineering and plant support inspectors. The steam generator replacement outage was well planned and executed. The attention to

lessons learned from the previous steam generator replacement outage were very effective in preventing recurrence of problems. Plant conditions were carefully controlled to minimize risk during construction activities.
Inspection Report# : 2002009*(pdf)*

Significance: G Aug 29, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow a Procedure to Update AFD Computer Constants as Required by TS 6.8.1 and Reg. Guide 1.33
Instrumentation and controls technicians did not ensure that computer constants needed to calculate axial flux difference were updated during calibrations of the nuclear instruments as required by the calibration procedures. The plant computer was the only method used to calculate core axial flux difference, and to alarm if limits were approached. This failure to follow procedures was a non-cited violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. The axial flux difference function was still operable with the old constants not properly updated for two channels, since the computer constants had changed by a small amount. However, this issue was considered to be more than minor because, if left uncorrected, it would be of greater safety concern because instrument inaccuracies could increase over time as the core burned up and detectors aged. The error affected operators' ability to maintain reactor power distribution within limits in order to protect the fuel clad barrier. This issue screened as a Green issue using Phase 1 of the Significance Determination Process because only the fuel clad barrier was potentially affected.
Inspection Report# : 2002004*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Significance: N/A Mar 13, 2003
Identified By: NRC
Item Type: FIN Finding
Verification of Compliance With Interim Compensatory Measures Order
On February 25, 2002, the NRC imposed by Order, Interim Compensatory Measures to enhance physical security. The inspectors determined that, overall, the licensee appropriately incorporated the Interim Compensatory Measures into the site protective strategy and access authorization program; developed and implemented relevant procedures; ensured that the emergency plan could be implemented; and established and effectively coordinated interface agreements with offsite organizations.
Inspection Report# : 2003005*(pdf)*

Miscellaneous

Last modified : May 30, 2003

South Texas 2
2Q/2003 Plant Inspection Findings

Initiating Events

Significance: G Apr 26, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures to manage the associated risk consequences of performing on-line maintenance on medium risk ranked plant equipment results in tripping a main FWP
A noncited violation was identified for the failure to manage the associated risk consequences of performing on-line maintenance on medium risk ranked plant equipment without following station procedures for mitigating the risk as prescribed in 10 CFR 50.65(a)(4), maintenance rule. Steam Generator Feedwater Pump 22 tripped while performing minor maintenance to replace a redundant power supply while at power. Weekend shift maintenance and operations crews did not recognize this work as being a medium trip risk evolution and treat it accordingly, resulting in relying on standby equipment and tripping a main feedwater pump. This work should have been characterized as a Medium Risk Evolution and treated in accordance with station procedures. This finding is in the licensee's corrective action program as Condition Report 03-7221. This finding is greater than minor because it affects the initiating events cornerstone by increasing the likelihood of an initiating event (plant transient). If the startup feedwater pump had not started, it may have caused a turbine/reactor trip. The finding is of very low safety significance because other standby equipment operated as required.
Inspection Report# : 2003002*(pdf)*

Significance: G Mar 09, 2003
Identified By: NRC
Item Type: FIN Finding
Operators failed to control reactor coolant system pressure, causing the lifting of a pressurizer power operated relief valve.
A finding was identified relating to operator performance during the safety injection event. Operators became distracted and failed to control reactor coolant system pressure while operating the system in the manual mode, causing the lifting of a pressurizer power-operated relief valve. A human performance problem was identified for inattention to detail in monitoring primary plant pressure and understanding the operation of the master pressure controller, which led to challenging the reactor coolant system barrier integrity. This issue was more than minor because it affected the Initiating Events and Barrier Integrity Cornerstone objectives, which required a Phase 2 evaluation. The human performance issue was determined to have very low safety significance using a Phase 2 Significance Determination Process evaluation by assuming all mitigation equipment remained available, but the initiating event frequency for events which could challenge pressurizer power-operated relief valves increased by a factor of 10, in accordance with Manual Chapter 0609 guidance.
Inspection Report# : 2002006*(pdf)*

Significance: G Mar 09, 2003
Identified By: NRC
Item Type: NCV NonCited Violation

Inadequate procedures permitting maintaining hot standby plant conditions with the main steam lines isolated without establishing precautions to drain accumulated condensate contributed to an inadver
A noncited violation with three examples was identified for three inadequate procedures required by Technical Specification 6.8.1.a and Regulatory Guide 1.33 that permitted maintaining hot standby plant conditions with the main steam lines isolated without establishing precautions to drain accumulated condensate. This contributed to an inadvertent safety injection actuation while initiating decay heat removal from an idle steam line. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-499/2002006-01). This issue was entered in the licensee's corrective action program under Condition Report 03-3694. This violation was more than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions through configuration control of the shutdown equipment alignment. This issue was determined to be of very low safety significance using Appendix G of the Significance Determination Process because it did not challenge defense in depth measures or equipment.
Inspection Report# : 2002006*(pdf)*

Significance: G Mar 01, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Condensate polisher system not within the scope of the Maintenance Rule Program as a system whose failure could cause a reactor trip.
A noncited violation of 10 CFR 50.65 was identified for not including the condensate polisher system within the scope of the Maintenance Rule Program as a system whose failure could cause a reactor trip. Unit 1 tripped on March 1, 2003, when a power supply that was original equipment failed. The power supply had no preventive maintenance item to periodically replace it, even though it controlled condensate flow through the condensate polishers and the condensate system function to automatically bypass the condensate polishers in the event of a high differential pressure condition. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-498/2002006-05). This issue was entered into the licensee's corrective action program under Condition Report 03-1837. This issue screened as Green using Phase 1 of the Significance Determination Process because it affected only one cornerstone and did not reduce the availability of mitigation equipment. This issue was more than minor because it affected the initiating events cornerstone objective to limit the likelihood of events that upset plant stability due to equipment reliability.
Inspection Report# : 2002006*(pdf)*

Significance: G Feb 20, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedure contributed tocollecting enough nitrogen in the reactor heat to displace about 4000 gallons ofreactor coolant during shutdown maintenance.
A noncited violation was identified for failure to follow a plant procedure, which contributed to collecting enough nitrogen in the reactor head to displace about 4000 gallons of reactor coolant during shutdown maintenance activities before it was recognized. Plant Operating Procedure 0POP03-ZG-0007, "Plant Cooldown," Revision 36, required the head vent valves to be open in this plant condition to vent gases and prevent them from collecting in the reactor head area. The operators did not fully assess this unusual evolution or apply increased controls, in part because a similar evolution had been successfully performed 2 months earlier. However, the earlier work had not required the head vent path to be isolated. This issue was entered in the licensee's corrective action program under Condition Reports 03-2751 and 03-3443. This issue is greater than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions (inventory control) during shutdown operations due to human performance. This issue is of very low safety significance because operators were monitoring backup level indications which were less sensitive but unaffected by the gas accumulation and because the

gas accumulation would have been self-limiting if it had progressed to the pressurizer surge line (a vent path).
Inspection Report# : 2003002*(pdf)*

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: FIN Finding
Licensee was not Monitoring or Addressing Declining Performance in Circulating Water System, Resulting in Catastrophic Pump Failure and Plant Trip
A finding was identified for PI&R selected issue followup. The licensee was not adequately monitoring the declining performance of the circulating water system and treated problems with this system symptomatically rather than finding the cause. Several near-miss failures were experienced which could have resulted in plant trips. Failing to assess the cause of system problems contributed to a pump discharge valve becoming separated from the operator and slamming shut, catastrophic failure of the pump, and a plant trip. The safety significance associated with this issue was very low because it resulted in a manual plant trip with all safety-related equipment available to provide mitigation capability. The issue affected the performance objectives of the initiating events cornerstone for design control, and screened as Green during a Phase 1 SDP evaluation.
Inspection Report# : 2002005*(pdf)*

Significance: G Jul 07, 2002
Identified By: NRC
Item Type: FIN Finding
Licensee Did Not Align Safety-related Instrumentation to Diverse Power Sources, Contributing to a Reactor Trip When an Inverter Fuse Blew
On July 7, 2002, power was lost to the Train D instrumentation channel when the associated inverter blew a fuse. Because it was the licensee's practice to operate with all four controlling steam generator water level channels powered from that channel, the level instruments all failed low, causing the control system to increase feedwater flow to maximum. Operators were unable to gain manual control of four channels fast enough to control level and the unit tripped on high steam generator water level. The inspectors concluded that the licensee had not maintained an operating equipment lineup that would minimize events that upset plant stability and challenged safety functions. This performance deficiency was considered to be of more than minor significance because it affected the performance objective of the initiating events cornerstone by increasing the likelihood of a plant trip or transient. The issue was screened as Green using Phase 1 of the Significance Determination Process.
Inspection Report# : 2002004*(pdf)*

Mitigating Systems

Significance: G Jan 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Improper maintenance to mechanism operated cell switch prevented the sequencer to initiate loading.
A noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for failure to have adequate maintenance procedures for mechanism-operated cell switches in circuit breakers. A fault affecting one switchyard bus caused a partial loss of offsite power in each unit. The Unit 1 Train B standby diesel generator started but failed to automatically sequence loads as designed. Maintenance personnel

identified that the operating mechanism for the cell switch was out of adjustment, preventing the switch from rotating fully and making full electrical contact that would cause the sequencer to initiate loading. The operating mechanism adjustment was not checked when the breaker was swapped a year earlier, and the misadjustment was sufficiently small that the switch functioned until this actual demand. The inspectors noted that the licensee did not have a maintenance procedure or preventive maintenance item to adjust, lubricate, clean, or fully test any of the mechanism operated cell switches onsite. Failure to procedurally verify the proper adjustment and operation of the motor-operated cell switch following breaker replacement was a violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-498/2002006-03). This issue was entered into the licensee's corrective action program under Condition Report 03-928.
Inspection Report# : 2002006*(pdf)*

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Noncited Violation for Improper Design Control due to Undersized Overload Heaters Being installed in SG PORVs During Breaker Replacement
The licensee did not properly control or review vendor design work when upgrading safety related 480V motor control center breaker units. As a result, the breakers for the hydraulic pumps for Steam Generator Power Operated Relief Valves 1B, 2B and 2C had undersized overload heaters installed, such that the valves would not have functioned as designed during periods of prolonged use or under degraded voltage conditions. Failure to assure that the design change for installing replacement 480V breaker units satisfied design requirements was a violation of 10 CFR 50, Appendix B, Criterion III, "Design Control." This violation is being treated as a noncited violation (NCV), consistent with Section VI.A of the Enforcement Policy. The safety significance of this issue was determined to be very low safety significance since this issue screened as Green during a Phase 1 significance determination process (SDP) assessment. The issue was considered more than minor because it affected the mitigating system cornerstone objective for design control and plant modifications by affecting the reliability of a system that responds to initiating events to prevent undesirable consequences
Inspection Report# : 2002005*(pdf)*

Barrier Integrity

Significance: G Mar 22, 2003
Identified By: NRC
Item Type: FIN Finding
Poor maintenance practices associated with foreign material exclusion caused two main steam isolation valves to not fully close as designed.
A finding was identified for poor maintenance practices that caused main steam isolation valves to not fully close as designed. The inspectors determined that the maintenance personnel demonstrated a problem with maintenance effectiveness in that poor system cleanliness practices during maintenance contributed to two main steam isolation valves' inability to operate/isolate as designed. Even though the licensee engineers determined that the valve design limited the amount of possible steam leakage to within analyzed limits for accident analyses, this issue caused the plant to experience a cooldown cycle twice to effect repairs. This issue was considered more than minor because the human performance issue of poor maintenance performance in foreign material control while rebuilding main steam isolation valves affected the barrier integrity cornerstone. The safety significance of this issue was determined to be very low

since the valves were capable of limiting steam flow within design requirements and since it screened as Green using a Phase 1 assessment of the Significance Determination Process. This issue is in the licensee's corrective action program under Condition Reports 02-19118, 02-19149, and 03-1325.
Inspection Report# : 2002006*(pdf)*

Significance: G Jan 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate procedure for restoring reactor coolant pumps caused a pressurizer power operated relief valve to lift.
A noncited violation was identified for an inadequate procedure. A fault affecting one switchyard bus caused a partial loss of offsite power in each unit. Unit 2 lost power to both running reactor coolant pumps, and when operators attempted to restore them, a pressurizer power operated relief valve lifted. Plant Operating Procedure 0POP02-RC-0004, "Operation of Reactor Coolant Pump," Revision 19, was determined to be inadequate because it contained prerequisites for starting an initial reactor coolant pump which conflicted with (and caused operators to disregard) precautions to be aware of and limit pressure transients during reactor coolant pump starts. This was considered to be a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33 for an inadequate procedure. Additionally, weaknesses were identified in operator understanding of the impact of their actions on the existing plant conditions and the operation of the pressurizer pressure control system. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-499/2002006-04). This issues was entered into the licensee's corrective action program under Condition Report 03-949. This issue was more than minor because it affected objectives of the barrier integrity and initiating events cornerstones, which required a Phase 2 evaluation. This issue was determined to be of very low safety significance using a Significance Determination Process Phase 2 evaluation. The inspectors assumed that all mitigation equipment remained available, but the initiating events that could challenge a pressurizer power operated relief valve had the frequency of occurrence increased by a factor of 10, in accordance with Manual Chapter 0609 guidance.
Inspection Report# : 2002006*(pdf)*

Significance: G Dec 21, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Steam Generator Replacement
The South Texas Project Unit 2 steam generator replacement project was inspected utilizing the guidance in Inspection Procedure 50001, "Steam Generator Replacement Inspection," in a series of three inspection reports (50-498;499/02-07, 02-08, and 02-09). These inspections covered design and planning, steam generator removal and replacement, and postinstallation verification and testing. The inspections were conducted by resident and region-based engineering and plant support inspectors. The steam generator replacement outage was well planned and executed. The attention to lessons learned from the previous steam generator replacement outage were very effective in preventing recurrence of problems. Plant conditions were carefully controlled to minimize risk during construction activities.
Inspection Report# : 2002009*(pdf)*

Significance: G Aug 29, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow a Procedure to Update AFD Computer Constants as Required by TS 6.8.1 and Reg. Guide 1.33
Instrumentation and controls technicians did not ensure that computer constants needed to calculate axial flux

difference were updated during calibrations of the nuclear instruments as required by the calibration procedures. The plant computer was the only method used to calculate core axial flux difference, and to alarm if limits were approached. This failure to follow procedures was a non-cited violation of Technical Specification 6.8.1 and Regulatory Guide 1.33. The axial flux difference function was still operable with the old constants not properly updated for two channels, since the computer constants had changed by a small amount. However, this issue was considered to be more than minor because, if left uncorrected, it would be of greater safety concern because instrument inaccuracies could increase over time as the core burned up and detectors aged. The error affected operators' ability to maintain reactor power distribution within limits in order to protect the fuel clad barrier. This issue screened as a Green issue using Phase 1 of the Significance Determination Process because only the fuel clad barrier was potentially affected.
Inspection Report# : 2002004*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Apr 04, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform an adequate airborne survey.
An NRC identified noncited violation of 10 CFR 20.1501a was identified because the licensee failed to perform an adequate airborne survey during decontamination activities. Specifically, during a review of surveys, the inspectors identified two examples in which air samplers were not properly positioned to ensure work area airborne radiological conditions were monitored. The failure to appropriately position air samplers to perform a representative airborne survey of a work area is a performance deficiency. The issue was more than minor because it was associated with a cornerstone attribute (program and process) and affected the occupational radiation safety cornerstone objective (to ensure the adequate protection of the worker's health and safety from radiation and radioactive material). The finding involved the failure to control radiological work that was contrary to regulatory requirements. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was found to have very low safety significance because it was not an ALARA issue, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2003002*(pdf)*

Public Radiation Safety

Physical Protection

Significance: N/A Mar 13, 2003
Identified By: NRC
Item Type: FIN Finding

Verification of Compliance With Interim Compensatory Measures Order
On February 25, 2002, the NRC imposed by Order, Interim Compensatory Measures to enhance physical security. The inspectors determined that, overall, the licensee appropriately incorporated the Interim Compensatory Measures into the site protective strategy and access authorization program; developed and implemented relevant procedures; ensured that the emergency plan could be implemented; and established and effectively coordinated interface agreements with offsite organizations.
Inspection Report# : 2003005*(pdf)*

Miscellaneous

Last modified : September 04, 2003

South Texas 2
3Q/2003 Plant Inspection Findings

Initiating Events

Significance: G Apr 26, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures to manage the associated risk consequences of performing on-line maintenance on medium risk ranked plant equipment results in tripping a main FWP
A noncited violation was identified for the failure to manage the associated risk consequences of performing on-line maintenance on medium risk ranked plant equipment without following station procedures for mitigating the risk as prescribed in 10 CFR 50.65(a)(4), maintenance rule. Steam Generator Feedwater Pump 22 tripped while performing minor maintenance to replace a redundant power supply while at power. Weekend shift maintenance and operations crews did not recognize this work as being a medium trip risk evolution and treat it accordingly, resulting in relying on standby equipment and tripping a main feedwater pump. This work should have been characterized as a Medium Risk Evolution and treated in accordance with station procedures. This finding is in the licensee's corrective action program as Condition Report 03-7221. This finding is greater than minor because it affects the initiating events cornerstone by increasing the likelihood of an initiating event (plant transient). If the startup feedwater pump had not started, it may have caused a turbine/reactor trip. The finding is of very low safety significance because other standby equipment operated as required.

Inspection Report# : 2003002*(pdf)*

Significance: G Mar 09, 2003
Identified By: NRC
Item Type: FIN Finding
Operators failed to control reactor coolant system pressure, causing the lifting of a pressurizer power operated relief valve.
A finding was identified relating to operator performance during the safety injection event. Operators became distracted and failed to control reactor coolant system pressure while operating the system in the manual mode, causing the lifting of a pressurizer power-operated relief valve. A human performance problem was identified for inattention to detail in monitoring primary plant pressure and understanding the operation of the master pressure controller, which led to challenging the reactor coolant system barrier integrity. This issue was more than minor because it affected the Initiating Events and Barrier Integrity Cornerstone objectives, which required a Phase 2 evaluation. The human performance issue was determined to have very low safety significance using a Phase 2 Significance Determination Process evaluation by assuming all mitigation equipment remained available, but the initiating event frequency for events which could challenge pressurizer power-operated relief valves increased by a factor of 10, in accordance with Manual Chapter 0609 guidance.
Inspection Report# : 2002006*(pdf)*

Significance: G Mar 09, 2003
Identified By: NRC

Item Type: NCV NonCited Violation
Inadequate procedures permitting maintaining hot standby plant conditions with the main steam lines isolated without establishing precautions to drain accumulated condensate contributed to an inadver
A noncited violation with three examples was identified for three inadequate procedures required by Technical Specification 6.8.1.a and Regulatory Guide 1.33 that permitted maintaining hot standby plant conditions with the main steam lines isolated without establishing precautions to drain accumulated condensate. This contributed to an inadvertent safety injection actuation while initiating decay heat removal from an idle steam line. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-499/2002006-01). This issue was entered in the licensee's corrective action program under Condition Report 03-3694. This violation was more than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions through configuration control of the shutdown equipment alignment. This issue was determined to be of very low safety significance using Appendix G of the Significance Determination Process because it did not challenge defense in depth measures or equipment.
Inspection Report# : 2002006*(pdf)*

Significance: G Mar 01, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Condensate polisher system not within the scope of the Maintenance Rule Program as a system whose failure could cause a reactor trip.
A noncited violation of 10 CFR 50.65 was identified for not including the condensate polisher system within the scope of the Maintenance Rule Program as a system whose failure could cause a reactor trip. Unit 1 tripped on March 1, 2003, when a power supply that was original equipment failed. The power supply had no preventive maintenance item to periodically replace it, even though it controlled condensate flow through the condensate polishers and the condensate system function to automatically bypass the condensate polishers in the event of a high differential pressure condition. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-498/2002006-05). This issue was entered into the licensee's corrective action program under Condition Report 03-1837. This issue screened as Green using Phase 1 of the Significance Determination Process because it affected only one cornerstone and did not reduce the availability of mitigation equipment. This issue was more than minor because it affected the initiating events cornerstone objective to limit the likelihood of events that upset plant stability due to equipment reliability.
Inspection Report# : 2002006*(pdf)*

Significance: G Feb 20, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedure contributed tocollecting enough nitrogen in the reactor heat to displace about 4000 gallons ofreactor coolant during shutdown maintenance.
A noncited violation was identified for failure to follow a plant procedure, which contributed to collecting enough nitrogen in the reactor head to displace about 4000 gallons of reactor coolant during shutdown maintenance activities before it was recognized. Plant Operating Procedure 0POP03-ZG-0007, "Plant Cooldown," Revision 36, required the head vent valves to be open in this plant condition to vent gases and prevent them from collecting in the reactor head area. The operators did not fully assess this unusual evolution or apply increased controls, in part because a similar evolution had been successfully performed 2 months earlier. However, the earlier work had not required the head vent path to be isolated. This issue was entered in the licensee's corrective action program under Condition Reports 03-2751 and 03-3443. This issue is greater than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions (inventory control) during shutdown operations due to human performance. This issue is of very low safety significance because operators were

monitoring backup level indications which were less sensitive but unaffected by the gas accumulation and because the gas accumulation would have been self-limiting if it had progressed to the pressurizer surge line (a vent path).
Inspection Report# : 2003002*(pdf)*

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: FIN Finding
Licensee was not Monitoring or Addressing Declining Performance in Circulating Water System, Resulting in Catastrophic Pump Failure and Plant Trip
A finding was identified for PI&R selected issue followup. The licensee was not adequately monitoring the declining performance of the circulating water system and treated problems with this system symptomatically rather than finding the cause. Several near-miss failures were experienced which could have resulted in plant trips. Failing to assess the cause of system problems contributed to a pump discharge valve becoming separated from the operator and slamming shut, catastrophic failure of the pump, and a plant trip. The safety significance associated with this issue was very low because it resulted in a manual plant trip with all safety-related equipment available to provide mitigation capability. The issue affected the performance objectives of the initiating events cornerstone for design control, and screened as Green during a Phase 1 SDP evaluation.
Inspection Report# : 2002005*(pdf)*

Mitigating Systems

Significance: G Sep 20, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective maintenance practices for motor operated valve actuators resulted in failure of a residual heat removal valve actuator.
A non-cited violation of 10 CFR 50, Appendix B, Criterion V, was identified related to ineffective maintenance practices for motor operated valve actuators. Ineffective maintenance practices resulted in the failure of a residual heat removal valve actuator and for numerous similar problems in other valve actuators. Specifically, the licensee failed to implement procedural requirements to develop, perform, track, and close out corrective actions for vendor technical bulletins and advisories. Guidance from a 1989 vendor advisory alerting the licensee to failures of motor operated valve actuators and recommending corrective measures was incorporated into station maintenance procedures without taking action to assure that actuators in the plant were actually corrected.
Inspection Report# : 2003003*(pdf)*

Significance: G Jan 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Improper maintenance to mechanism operated cell switch prevented the sequencer to initiate loading.
A noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for failure to have adequate maintenance procedures for mechanism-operated cell switches in circuit breakers. A fault affecting one switchyard bus caused a partial loss of offsite power in each unit. The Unit 1 Train B standby diesel generator started but failed to automatically sequence loads as designed. Maintenance personnel identified that the operating mechanism for the cell switch was out of adjustment, preventing the switch from rotating

fully and making full electrical contact that would cause the sequencer to initiate loading. The operating mechanism adjustment was not checked when the breaker was swapped a year earlier, and the misadjustment was sufficiently small that the switch functioned until this actual demand. The inspectors noted that the licensee did not have a maintenance procedure or preventive maintenance item to adjust, lubricate, clean, or fully test any of the mechanism operated cell switches onsite. Failure to procedurally verify the proper adjustment and operation of the motor-operated cell switch following breaker replacement was a violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-498/2002006-03). This issue was entered into the licensee's corrective action program under Condition Report 03-928.
Inspection Report# : 2002006*(pdf)*

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Noncited Violation for Improper Design Control due to Undersized Overload Heaters Being installed in SG PORVs During Breaker Replacement
The licensee did not properly control or review vendor design work when upgrading safety related 480V motor control center breaker units. As a result, the breakers for the hydraulic pumps for Steam Generator Power Operated Relief Valves 1B, 2B and 2C had undersized overload heaters installed, such that the valves would not have functioned as designed during periods of prolonged use or under degraded voltage conditions. Failure to assure that the design change for installing replacement 480V breaker units satisfied design requirements was a violation of 10 CFR 50, Appendix B, Criterion III, "Design Control." This violation is being treated as a noncited violation (NCV), consistent with Section VI.A of the Enforcement Policy. The safety significance of this issue was determined to be very low safety significance since this issue screened as Green during a Phase 1 significance determination process (SDP) assessment. The issue was considered more than minor because it affected the mitigating system cornerstone objective for design control and plant modifications by affecting the reliability of a system that responds to initiating events to prevent undesirable consequences
Inspection Report# : 2002005*(pdf)*

Barrier Integrity

Significance: G Mar 22, 2003
Identified By: NRC
Item Type: FIN Finding
Poor maintenance practices associated with foreign material exclusion caused two main steam isolation valves to not fully close as designed.
A finding was identified for poor maintenance practices that caused main steam isolation valves to not fully close as designed. The inspectors determined that the maintenance personnel demonstrated a problem with maintenance effectiveness in that poor system cleanliness practices during maintenance contributed to two main steam isolation valves' inability to operate/isolate as designed. Even though the licensee engineers determined that the valve design limited the amount of possible steam leakage to within analyzed limits for accident analyses, this issue caused the plant to experience a cooldown cycle twice to effect repairs. This issue was considered more than minor because the human performance issue of poor maintenance performance in foreign material control while rebuilding main steam isolation valves affected the barrier integrity cornerstone. The safety significance of this issue was determined to be very low since the valves were capable of limiting steam flow within design requirements and since it screened as Green using a

Phase 1 assessment of the Significance Determination Process. This issue is in the licensee's corrective action program under Condition Reports 02-19118, 02-19149, and 03-1325.
Inspection Report# : 2002006*(pdf)*

Significance: G Jan 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate procedure for restoring reactor coolant pumps caused a pressurizer power operated relief valve to lift.
A noncited violation was identified for an inadequate procedure. A fault affecting one switchyard bus caused a partial loss of offsite power in each unit. Unit 2 lost power to both running reactor coolant pumps, and when operators attempted to restore them, a pressurizer power operated relief valve lifted. Plant Operating Procedure 0POP02-RC-0004, "Operation of Reactor Coolant Pump," Revision 19, was determined to be inadequate because it contained prerequisites for starting an initial reactor coolant pump which conflicted with (and caused operators to disregard) precautions to be aware of and limit pressure transients during reactor coolant pump starts. This was considered to be a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33 for an inadequate procedure. Additionally, weaknesses were identified in operator understanding of the impact of their actions on the existing plant conditions and the operation of the pressurizer pressure control system. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-499/2002006-04). This issues was entered into the licensee's corrective action program under Condition Report 03-949. This issue was more than minor because it affected objectives of the barrier integrity and initiating events cornerstones, which required a Phase 2 evaluation. This issue was determined to be of very low safety significance using a Significance Determination Process Phase 2 evaluation. The inspectors assumed that all mitigation equipment remained available, but the initiating events that could challenge a pressurizer power operated relief valve had the frequency of occurrence increased by a factor of 10, in accordance with Manual Chapter 0609 guidance.
Inspection Report# : 2002006*(pdf)*

Significance: G Dec 21, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Steam Generator Replacement
The South Texas Project Unit 2 steam generator replacement project was inspected utilizing the guidance in Inspection Procedure 50001, "Steam Generator Replacement Inspection," in a series of three inspection reports (50-498;499/02-07, 02-08, and 02-09). These inspections covered design and planning, steam generator removal and replacement, and postinstallation verification and testing. The inspections were conducted by resident and region-based engineering and plant support inspectors. The steam generator replacement outage was well planned and executed. The attention to lessons learned from the previous steam generator replacement outage were very effective in preventing recurrence of problems. Plant conditions were carefully controlled to minimize risk during construction activities.
Inspection Report# : 2002009*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Apr 04, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform an adequate airborne survey.
An NRC identified noncited violation of 10 CFR 20.1501a was identified because the licensee failed to perform an adequate airborne survey during decontamination activities. Specifically, during a review of surveys, the inspectors identified two examples in which air samplers were not properly positioned to ensure work area airborne radiological conditions were monitored. The failure to appropriately position air samplers to perform a representative airborne survey of a work area is a performance deficiency. The issue was more than minor because it was associated with a cornerstone attribute (program and process) and affected the occupational radiation safety cornerstone objective (to ensure the adequate protection of the worker's health and safety from radiation and radioactive material). The finding involved the failure to control radiological work that was contrary to regulatory requirements. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was found to have very low safety significance because it was not an ALARA issue, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2003002*(pdf)*

Public Radiation Safety

Physical Protection

Significance: N/A Mar 13, 2003
Identified By: NRC
Item Type: FIN Finding
Verification of Compliance With Interim Compensatory Measures Order
On February 25, 2002, the NRC imposed by Order, Interim Compensatory Measures to enhance physical security. The inspectors determined that, overall, the licensee appropriately incorporated the Interim Compensatory Measures into the site protective strategy and access authorization program; developed and implemented relevant procedures; ensured that the emergency plan could be implemented; and established and effectively coordinated interface agreements with offsite organizations.
Inspection Report# : 2003005*(pdf)*

Miscellaneous

Significance: N/A Jun 12, 2003
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The licensee's actions to enhance employee protection and reporting of safety concerns were determined to be in compliance with the terms and conditions of the Order. Licensee audits, surveys, and assessments were found to be adequate. A safety conscious work environment at STP was found to be in place, maintained, and accepted by licensee personnel. The inspectors found workers at the site felt free to identify concerns to their supervision and to input safety

findings into their corrective action program or Employee Concerns Program without fear of retaliation. The licensee's compliance with the terms and conditions of the Order were verified through direct inspection and documentation reviews.
Inspection Report# : 2003009*(pdf)*

Last modified : December 01, 2003

South Texas 2
4Q/2003 Plant Inspection Findings

Initiating Events

Significance: G Dec 27, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inappropriate operator response to an event resulted in multiple pressurizer PORV lifts during operations ina water solid condition.
The inspectors identified a noncited violation of Technical Specification 6.8.1.a regarding Regulatory Guide 1.33 required procedure. Licensee procedure "Conduct of Operations," Revision 21, requires, in part, that if the plant does not perform or respond as expected, operations personnel will take conservative action to return the plant to a known condition. On March 26, 2003, operators inappropriately responded to plant conditions making an event more significant because operators did not understand and control the impact of the restoration of power to an instrumentation panel. They also did not understand the interactions between the normal pressurizer controller and the cold overpressure mitigation system. This issue was greater than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations, in that operators contributed to initiating this event and making it more significant. The performance deficiency was determined to represent a finding of very low safety significance. This was based on a Phase 1 screening in accordance with Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." The major factors in this determination were the continued availability of methods to control reactor coolant system pressure and the short period of time that the cold overpressure mitigation system was nonfunctional.
Inspection Report# : 2003004*(pdf)*

Significance: G Apr 26, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures to manage the associated risk consequences of performing on-line maintenance on medium risk ranked plant equipment results in tripping a main FWP
A noncited violation was identified for the failure to manage the associated risk consequences of performing on-line maintenance on medium risk ranked plant equipment without following station procedures for mitigating the risk as prescribed in 10 CFR 50.65(a)(4), maintenance rule. Steam Generator Feedwater Pump 22 tripped while performing minor maintenance to replace a redundant power supply while at power. Weekend shift maintenance and operations crews did not recognize this work as being a medium trip risk evolution and treat it accordingly, resulting in relying on standby equipment and tripping a main feedwater pump. This work should have been characterized as a Medium Risk Evolution and treated in accordance with station procedures. This finding is in the licensee's corrective action program as Condition Report 03-7221. This finding is greater than minor because it affects the initiating events cornerstone by increasing the likelihood of an initiating event (plant transient). If the startup feedwater pump had not started, it may have caused a turbine/reactor trip. The finding is of very low safety significance because other standby equipment operated as required.

Inspection Report# : 2003002*(pdf)*

Significance: G Mar 09, 2003
Identified By: NRC
Item Type: FIN Finding
Operators failed to control reactor coolant system pressure, causing the lifting of a pressurizer power operated relief valve.
A finding was identified relating to operator performance during the safety injection event. Operators became distracted and failed to control reactor coolant system pressure while operating the system in the manual mode, causing the lifting of a pressurizer power-operated relief valve. A human performance problem was identified for inattention to detail in monitoring primary plant pressure and understanding the operation of the master pressure controller, which led to challenging the reactor coolant system barrier integrity. This issue was more than minor because it affected the Initiating Events and Barrier Integrity Cornerstone objectives, which required a Phase 2 evaluation. The human performance issue was determined to have very low safety significance using a Phase 2 Significance Determination Process evaluation by assuming all mitigation equipment remained available, but the initiating event frequency for events which could challenge pressurizer power-operated relief valves increased by a factor of 10, in accordance with Manual Chapter 0609 guidance.
Inspection Report# : 2002006*(pdf)*

Significance: G Mar 09, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate procedures permitting maintaining hot standby plant conditions with the main steam lines isolated without establishing precautions to drain accumulated condensate contributed to an inadver
A noncited violation with three examples was identified for three inadequate procedures required by Technical Specification 6.8.1.a and Regulatory Guide 1.33 that permitted maintaining hot standby plant conditions with the main steam lines isolated without establishing precautions to drain accumulated condensate. This contributed to an inadvertent safety injection actuation while initiating decay heat removal from an idle steam line. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-499/2002006-01). This issue was entered in the licensee's corrective action program under Condition Report 03-3694. This violation was more than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions through configuration control of the shutdown equipment alignment. This issue was determined to be of very low safety significance using Appendix G of the Significance Determination Process because it did not challenge defense in depth measures or equipment.
Inspection Report# : 2002006*(pdf)*

Significance: G Mar 01, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Condensate polisher system not within the scope of the Maintenance Rule Program as a system whose failure could cause a reactor trip.
A noncited violation of 10 CFR 50.65 was identified for not including the condensate polisher system within the scope of the Maintenance Rule Program as a system whose failure could cause a reactor trip. Unit 1 tripped on March 1, 2003, when a power supply that was original equipment failed. The power supply had no preventive maintenance item to periodically replace it, even though it controlled condensate flow through the condensate polishers and the condensate system function to automatically bypass the condensate polishers in the event of a high differential pressure condition. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-498/2002006-05). This issue was entered into the licensee's corrective action program under Condition Report 03-1837. This issue screened as Green using Phase 1 of the Significance Determination Process because it

affected only one cornerstone and did not reduce the availability of mitigation equipment. This issue was more than minor because it affected the initiating events cornerstone objective to limit the likelihood of events that upset plant stability due to equipment reliability.
Inspection Report# : 2002006*(pdf)*

Significance: G Feb 20, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedure contributed tocollecting enough nitrogen in the reactor heat to displace about 4000 gallons ofreactor coolant during shutdown maintenance.
A noncited violation was identified for failure to follow a plant procedure, which contributed to collecting enough nitrogen in the reactor head to displace about 4000 gallons of reactor coolant during shutdown maintenance activities before it was recognized. Plant Operating Procedure 0POP03-ZG-0007, "Plant Cooldown," Revision 36, required the head vent valves to be open in this plant condition to vent gases and prevent them from collecting in the reactor head area. The operators did not fully assess this unusual evolution or apply increased controls, in part because a similar evolution had been successfully performed 2 months earlier. However, the earlier work had not required the head vent path to be isolated. This issue was entered in the licensee's corrective action program under Condition Reports 03-2751 and 03-3443. This issue is greater than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions (inventory control) during shutdown operations due to human performance. This issue is of very low safety significance because operators were monitoring backup level indications which were less sensitive but unaffected by the gas accumulation and because the gas accumulation would have been self-limiting if it had progressed to the pressurizer surge line (a vent path).
Inspection Report# : 2003002*(pdf)*

Mitigating Systems

Significance: G Sep 20, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective maintenance practices for motor operated valve actuators resulted in failure of a residual heat removal valve actuator.
A non-cited violation of 10 CFR 50, Appendix B, Criterion V, was identified related to ineffective maintenance practices for motor operated valve actuators. Ineffective maintenance practices resulted in the failure of a residual heat removal valve actuator and for numerous similar problems in other valve actuators. Specifically, the licensee failed to implement procedural requirements to develop, perform, track, and close out corrective actions for vendor technical bulletins and advisories. Guidance from a 1989 vendor advisory alerting the licensee to failures of motor operated valve actuators and recommending corrective measures was incorporated into station maintenance procedures without taking action to assure that actuators in the plant were actually corrected.
Inspection Report# : 2003003*(pdf)*

Significance: G Jan 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Improper maintenance to mechanism operated cell switch prevented the sequencer to initiate loading.

A noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for failure to have adequate maintenance procedures for mechanism-operated cell switches in circuit breakers. A fault affecting one switchyard bus caused a partial loss of offsite power in each unit. The Unit 1 Train B standby diesel generator started but failed to automatically sequence loads as designed. Maintenance personnel identified that the operating mechanism for the cell switch was out of adjustment, preventing the switch from rotating fully and making full electrical contact that would cause the sequencer to initiate loading. The operating mechanism adjustment was not checked when the breaker was swapped a year earlier, and the misadjustment was sufficiently small that the switch functioned until this actual demand. The inspectors noted that the licensee did not have a maintenance procedure or preventive maintenance item to adjust, lubricate, clean, or fully test any of the mechanism operated cell switches onsite. Failure to procedurally verify the proper adjustment and operation of the motor-operated cell switch following breaker replacement was a violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-498/2002006-03). This issue was entered into the licensee's corrective action program under Condition Report 03-928.
Inspection Report# : 2002006*(pdf)*

Barrier Integrity

Significance: G Mar 22, 2003
Identified By: NRC
Item Type: FIN Finding
Poor maintenance practices associated with foreign material exclusion caused two main steam isolation valves to not fully close as designed.
A finding was identified for poor maintenance practices that caused main steam isolation valves to not fully close as designed. The inspectors determined that the maintenance personnel demonstrated a problem with maintenance effectiveness in that poor system cleanliness practices during maintenance contributed to two main steam isolation valves' inability to operate/isolate as designed. Even though the licensee engineers determined that the valve design limited the amount of possible steam leakage to within analyzed limits for accident analyses, this issue caused the plant to experience a cooldown cycle twice to effect repairs. This issue was considered more than minor because the human performance issue of poor maintenance performance in foreign material control while rebuilding main steam isolation valves affected the barrier integrity cornerstone. The safety significance of this issue was determined to be very low since the valves were capable of limiting steam flow within design requirements and since it screened as Green using a Phase 1 assessment of the Significance Determination Process. This issue is in the licensee's corrective action program under Condition Reports 02-19118, 02-19149, and 03-1325.
Inspection Report# : 2002006*(pdf)*

Significance: G Jan 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate procedure for restoring reactor coolant pumps caused a pressurizer power operated relief valve to lift.
A noncited violation was identified for an inadequate procedure. A fault affecting one switchyard bus caused a partial loss of offsite power in each unit. Unit 2 lost power to both running reactor coolant pumps, and when operators attempted to restore them, a pressurizer power operated relief valve lifted. Plant Operating Procedure 0POP02-RC-0004, "Operation of Reactor Coolant Pump," Revision 19, was determined to be inadequate because it contained

prerequisites for starting an initial reactor coolant pump which conflicted with (and caused operators to disregard) precautions to be aware of and limit pressure transients during reactor coolant pump starts. This was considered to be a violation of Technical Specification 6.8.1 and Regulatory Guide 1.33 for an inadequate procedure. Additionally, weaknesses were identified in operator understanding of the impact of their actions on the existing plant conditions and the operation of the pressurizer pressure control system. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-499/2002006-04). This issues was entered into the licensee's corrective action program under Condition Report 03-949. This issue was more than minor because it affected objectives of the barrier integrity and initiating events cornerstones, which required a Phase 2 evaluation. This issue was determined to be of very low safety significance using a Significance Determination Process Phase 2 evaluation. The inspectors assumed that all mitigation equipment remained available, but the initiating events that could challenge a pressurizer power operated relief valve had the frequency of occurrence increased by a factor of 10, in accordance with Manual Chapter 0609 guidance.
Inspection Report# : 2002006*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Apr 04, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform an adequate airborne survey.
An NRC identified noncited violation of 10 CFR 20.1501a was identified because the licensee failed to perform an adequate airborne survey during decontamination activities. Specifically, during a review of surveys, the inspectors identified two examples in which air samplers were not properly positioned to ensure work area airborne radiological conditions were monitored. The failure to appropriately position air samplers to perform a representative airborne survey of a work area is a performance deficiency. The issue was more than minor because it was associated with a cornerstone attribute (program and process) and affected the occupational radiation safety cornerstone objective (to ensure the adequate protection of the worker's health and safety from radiation and radioactive material). The finding involved the failure to control radiological work that was contrary to regulatory requirements. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was found to have very low safety significance because it was not an ALARA issue, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2003002*(pdf)*

Public Radiation Safety

Physical Protection

Significance: N/A Mar 13, 2003
Identified By: NRC
Item Type: FIN Finding
Verification of Compliance With Interim Compensatory Measures Order
On February 25, 2002, the NRC imposed by Order, Interim Compensatory Measures to enhance physical security. The inspectors determined that, overall, the licensee appropriately incorporated the Interim Compensatory Measures into the site protective strategy and access authorization program; developed and implemented relevant procedures; ensured that the emergency plan could be implemented; and established and effectively coordinated interface agreements with offsite organizations.
Inspection Report# : 2003005*(pdf)*

Miscellaneous

Significance: N/A Jun 12, 2003
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The licensee's actions to enhance employee protection and reporting of safety concerns were determined to be in compliance with the terms and conditions of the Order. Licensee audits, surveys, and assessments were found to be adequate. A safety conscious work environment at STP was found to be in place, maintained, and accepted by licensee personnel. The inspectors found workers at the site felt free to identify concerns to their supervision and to input safety findings into their corrective action program or Employee Concerns Program without fear of retaliation. The licensee's compliance with the terms and conditions of the Order were verified through direct inspection and documentation reviews.
Inspection Report# : 2003009*(pdf)*

Last modified : March 02, 2004

South Texas 2
1Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Dec 27, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inappropriate operator response to an event resulted in multiple pressurizer PORV lifts during operations ina water solid condition.
The inspectors identified a noncited violation of Technical Specification 6.8.1.a regarding Regulatory Guide 1.33 required procedure. Licensee procedure "Conduct of Operations," Revision 21, requires, in part, that if the plant does not perform or respond as expected, operations personnel will take conservative action to return the plant to a known condition. On March 26, 2003, operators inappropriately responded to plant conditions making an event more significant because operators did not understand and control the impact of the restoration of power to an instrumentation panel. They also did not understand the interactions between the normal pressurizer controller and the cold overpressure mitigation system. This issue was greater than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations, in that operators contributed to initiating this event and making it more significant. The performance deficiency was determined to represent a finding of very low safety significance. This was based on a Phase 1 screening in accordance with Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." The major factors in this determination were the continued availability of methods to control reactor coolant system pressure and the short period of time that the cold overpressure mitigation system was nonfunctional.
Inspection Report# : 2003004*(pdf)*

Significance: G Apr 26, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow procedures to manage the associated risk consequences of performing on-line maintenance on medium risk ranked plant equipment results in tripping a main FWP
A noncited violation was identified for the failure to manage the associated risk consequences of performing on-line maintenance on medium risk ranked plant equipment without following station procedures for mitigating the risk as prescribed in 10 CFR 50.65(a)(4), maintenance rule. Steam Generator Feedwater Pump 22 tripped while performing minor maintenance to replace a redundant power supply while at power. Weekend shift maintenance and operations crews did not recognize this work as being a medium trip risk evolution and treat it accordingly, resulting in relying on standby equipment and tripping a main feedwater pump. This work should have been characterized as a Medium Risk Evolution and treated in accordance with station procedures. This finding is in the licensee's corrective action program as Condition Report 03-7221. This finding is greater than minor because it affects the initiating events cornerstone by increasing the likelihood of an initiating event (plant transient). If the startup feedwater pump had not started, it may have caused a turbine/reactor trip. The finding is of very low safety significance because other standby equipment operated as required.

Inspection Report# : 2003002*(pdf)*

Mitigating Systems

Significance: G Sep 20, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective maintenance practices for motor operated valve actuators resulted in failure of a residual heat removal valve actuator.
A non-cited violation of 10 CFR 50, Appendix B, Criterion V, was identified related to ineffective maintenance practices for motor operated valve actuators. Ineffective maintenance practices resulted in the failure of a residual heat removal valve actuator and for numerous similar problems in other valve actuators. Specifically, the licensee failed to implement procedural requirements to develop, perform, track, and close out corrective actions for vendor technical bulletins and advisories. Guidance from a 1989 vendor advisory alerting the licensee to failures of motor operated valve actuators and recommending corrective measures was incorporated into station maintenance procedures without taking action to assure that actuators in the plant were actually corrected.
Inspection Report# : 2003003*(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Apr 04, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform an adequate airborne survey.
An NRC identified noncited violation of 10 CFR 20.1501a was identified because the licensee failed to perform an adequate airborne survey during decontamination activities. Specifically, during a review of surveys, the inspectors identified two examples in which air samplers were not properly positioned to ensure work area airborne radiological conditions were monitored. The failure to appropriately position air samplers to perform a representative airborne survey of a work area is a performance deficiency. The issue was more than minor because it was associated with a cornerstone attribute (program and process) and affected the occupational radiation safety cornerstone objective (to ensure the adequate protection of the worker's health and safety from radiation and radioactive material). The finding involved the failure to control radiological work that was contrary to regulatory requirements. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was found to have very low safety significance because it was not an ALARA issue, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2003002*(pdf)*

Public Radiation Safety

Physical Protection

Miscellaneous

Significance: N/A Jun 12, 2003
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The licensee's actions to enhance employee protection and reporting of safety concerns were determined to be in compliance with the terms and conditions of the Order. Licensee audits, surveys, and assessments were found to be adequate. A safety conscious work environment at STP was found to be in place, maintained, and accepted by licensee personnel. The inspectors found workers at the site felt free to identify concerns to their supervision and to input safety findings into their corrective action program or Employee Concerns Program without fear of retaliation. The licensee's compliance with the terms and conditions of the Order were verified through direct inspection and documentation reviews.
Inspection Report# : 2003009*(pdf)*

Last modified : May 05, 2004

South Texas 2
2Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Jan 23, 2004
Identified By: NRC
Item Type: FIN Finding
Inappropriate operator response to an event resulted in a plant transient.
A finding was identified for the failure of reactor operators to appropriately respond to an event that resulted in a plant transient. On January 23, 2004, operators inappropriately responded to plant conditions which resulted in an event becoming more significant. Operators appropriately diagnosed the failure and operator response was clearly understood and communicated. However, operators inappropriately manipulated the steam generator level controls and did not control steam generator levels in the A and B steam generators. An automatic reactor trip occurred due to high steam generator level in the B steam generator. This issue was more than minor because it was similar to Example 4.b in Manual Chapter 0612, Appendix E, "Examples of Minor Issues," and it met the "not minor if" criteria, in that the error resulted in a plant transient. This issue affected the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions, in that operators inappropriately manipulated the steam generator level controls and did not control steam generator levels. A Phase 1 Significance Determination Process determined that the performance deficiency represented a finding of very low risk significance (Green) because it did not contribute to a primary or secondary loss of coolant accident, did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or function will not be available, and did not increase the likelihood of a fire or internal/external flood. This finding also had crosscutting issues associated with human performance because personnel failed to adequately control steam generator levels due to misoperation of plant equipment.
Inspection Report# : 2004002*(pdf)*

Significance: G Jan 23, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Ferro-Resonant Transformer Failures in Class 1E Inverters
A noncited violation of 10 CFR Part 50 Appendix B, Criterion XVl, Corrective Action, was identified for the failure to implement effective corrective action for inverter failures that occurred at the South Texas Project. The licensee had identified previous failures of the Class 1E 7.5 kV inverters as significant conditions adverse to quality. However, the licensee did not assure that the cause of the condition was determined and corrective actions were taken to preclude repetition. Reliability of the inverters was reasonably within the licensee's ability to foresee and correct and these failures could have been prevented. The failure of the inverters resulted in additional significant events, including a plant transient. The Phase 1 SDP screening resulted in the need for a Phase 2 evaluation because the finding contributes to both the likelihood of a reactor trip and the likelihood that mitigating equipment will not be available. The Phase 2 evaluation resulted in a finding with a potential of greater than very low safety significance using the counting rule which then necessitated a Phase 3 analysis. This issue was forwarded to a RIV Senior Reactor Analyst for Phase 3 analysis. Phase 3 analysis concluded that the issue was of very low safety significance. Corrective actions included replacing the at fault aged ferro-resonant transformers in all the safety related Class 1E inverters. This finding had crosscutting issues associated with problem identification and resolution because personnel failed to correct degraded conditions.
Inspection Report# : 2004002*(pdf)*

Significance: G Dec 27, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inappropriate operator response to an event resulted in multiple pressurizer PORV lifts during operations ina water solid condition.
The inspectors identified a noncited violation of Technical Specification 6.8.1.a regarding Regulatory Guide 1.33 required procedure. Licensee procedure "Conduct of Operations," Revision 21, requires, in part, that if the plant does not perform or respond as expected, operations personnel will take conservative action to return the plant to a known condition. On March 26, 2003, operators inappropriately responded to plant conditions making an event more significant because operators did not understand and control the impact of the restoration of power to an instrumentation panel. They also did not understand the interactions between the normal pressurizer controller and the cold overpressure mitigation system. This issue was greater than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations, in that operators contributed to initiating this event and making it more significant. The performance deficiency was determined to represent a finding of very low safety significance. This was based on a Phase 1 screening in accordance with Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." The major factors in this determination were the continued availability of methods to control reactor coolant system pressure and the short period of time that the cold overpressure mitigation system was nonfunctional.
Inspection Report# : 2003004*(pdf)*

Mitigating Systems

Significance: G Sep 20, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective maintenance practices for motor operated valve actuators resulted in failure of a residual heat removal valve actuator.
A non-cited violation of 10 CFR 50, Appendix B, Criterion V, was identified related to ineffective maintenance practices for motor operated valve actuators. Ineffective maintenance practices resulted in the failure of a residual heat removal valve actuator and for numerous similar problems in other valve actuators. Specifically, the licensee failed to implement procedural requirements to develop, perform, track, and close out corrective actions for vendor technical bulletins and advisories. Guidance from a 1989 vendor advisory alerting the licensee to failures of motor operated valve actuators and recommending corrective measures was incorporated into station maintenance procedures without taking action to assure that actuators in the plant were actually corrected.
Inspection Report# : 2003003*(pdf)*

Barrier Integrity

Significance: G Jan 21, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate procedure results in relief valve opening.
A Green noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for an inadequate procedure that resulted in a letdown pressure relief valve opening during a letdown orifice swap. Operators failed to manipulate the letdown orifice isolation valve in a manner that properly controlled pressure in the chemical and volume control system. As a result, the letdown line relief valve opened, diverting reactor coolant system inventory to the primary relief tank. Corrective actions for this event included enhancing the procedure by adding notes and precautions and holding lessons learned sessions with operators. This finding is greater than minor because the opening of the letdown relief valve increased the risk of an initiating event of an interfacing system small loss of coolant accident and degraded the reactor coolant system barrier integrity and therefore could be reasonably viewed as a precursor to a significant event. A Phase 1 screening passed to a Phase 2 evaluation because the letdown line relief that lifted could have failed to reseat or could have continually blown down if not isolated. The Phase 2 evaluation resulted in a Green determination. However, the result was unreliable because the tool did not accurately model the event. Under the Phase 3 analysis, a Region IV Senior Reactor Analyst evaluated several scenarios involving mechanical and human error failures that could result in the failure of the safety relief to close and/or failure of letdown isolation contributing to the continued draining the reactor coolant system. The result indicated that the risk significance of the performance deficiency that caused the event was very low.

Inspection Report# : 2004003*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Apr 16, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Two examples of failure to control high radiation areas.
The inspector reviewed two examples of a Green noncited violation of Technical Specification 6.12.1, in which the licensee failed to control high radiation areas. On May 3, 2003, the licensee identified, during routine surveys, an uncontrolled high radiation area in Unit 1, Room 108C. The licensee initially concluded that the apparent cause was a plant system that introduced unpredictable dose rates. However, as a result of the inspector's questions, the licensee reviewed the matter further and concluded the cause was a lack of plant system knowledge on the part of some radiation protection personnel. The licensee re-opened the original condition report and re-entered it to the corrective action program. The licensee was alerted to a second example when a worker's electronic dosimeter alarmed on April 6, 2004, as the individual worked on scaffolding under Unit 2 Steam Generators B and C. The dose rates were not identified before the worker entered the area because the responsible radiation protection technician was unaware of the existence of drain lines from Steam Generators B and C. The licensee placed the finding into its corrective action program.
The failures to correctly control high radiation areas were performance deficiencies. These examples of a finding were greater than minor because they were associated with one of the cornerstone attributes and affected the cornerstone objective, in that, inadequate exposure controls of high radiation areas affected the licensee's ability to ensure adequate protection of worker health and safety from exposure to radiation. Because the examples of a

finding involved the potential for workers to receive significant, unplanned, unintended dose as a result of conditions contrary to technical specification requirements, the inspector used the Occupational Radiation Safety Significance Determination Process described in Manual Chapter 0609, Appendix C, to analyze the significance of the examples. The inspector determined that the examples were of very low safety significance because they did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. The first example of this finding also had crosscutting aspects associated with problem identification and resolution. The original cause determination was inadequate.
Inspection Report# : 2004003*(pdf)*

Significance: G Jan 08, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Three examples of the failure to follow Technical Specification required procedure.
The inspectors identified three examples of a noncited violation of Technical Specification 6.8.1(a) because the licensee failed to follow procedural requirements. Procedure 0PGP03-ZA-0010, required station personnel to stop and resolve an issue when the performance of a procedure step would not have achieved the desired result. During the initial setup and leak check of a reusable waste container, the operator was required to ensure that valve 1(2)-WS-0077 was open. However, the procedure incorrectly referred to valve 1(2)-WS-0077 instead of the correct valve 1(2)-WS-0079. Ensuring valve 1(2)-WS-0077 was open would not have achieved the desired result. On April 20, July 8, and July 20, 2003, the licensee failed to stop and resolve the error with the reference to the incorrect valve. The failure to follow procedural requirements are three examples of a performance deficiency. The finding is greater than minor because it could be reasonably viewed as a precursor to a significant event and it affected the Occupational Radiation Safety cornerstone objective, which is to ensure adequate protection of worker health and safety from exposure to radiation. The finding was associated with the cornerstone attribute of Program and Process. When processed through the Occupational Radiation Safety Significance Determination Process (SDP), the finding was found to have very low safety significance because it was not associated with ALARA planning or work controls, there was no overexposure or a substantial potential for overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2004002*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : September 08, 2004

South Texas 2
3Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Jan 23, 2004
Identified By: NRC
Item Type: FIN Finding
Inappropriate operator response to an event resulted in a plant transient.
A finding was identified for the failure of reactor operators to appropriately respond to an event that resulted in a plant transient. On January 23, 2004, operators inappropriately responded to plant conditions which resulted in an event becoming more significant. Operators appropriately diagnosed the failure and operator response was clearly understood and communicated. However, operators inappropriately manipulated the steam generator level controls and did not control steam generator levels in the A and B steam generators. An automatic reactor trip occurred due to high steam generator level in the B steam generator. This issue was more than minor because it was similar to Example 4.b in Manual Chapter 0612, Appendix E, "Examples of Minor Issues," and it met the "not minor if" criteria, in that the error resulted in a plant transient. This issue affected the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions, in that operators inappropriately manipulated the steam generator level controls and did not control steam generator levels. A Phase 1 Significance Determination Process determined that the performance deficiency represented a finding of very low risk significance (Green) because it did not contribute to a primary or secondary loss of coolant accident, did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or function will not be available, and did not increase the likelihood of a fire or internal/external flood. This finding also had crosscutting issues associated with human performance because personnel failed to adequately control steam generator levels due to misoperation of plant equipment.
Inspection Report# : 2004002*(pdf)*

Significance: G Jan 23, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Ferro-Resonant Transformer Failures in Class 1E Inverters
A noncited violation of 10 CFR Part 50 Appendix B, Criterion XVl, Corrective Action, was identified for the failure to implement effective corrective action for inverter failures that occurred at the South Texas Project. The licensee had identified previous failures of the Class 1E 7.5 kV inverters as significant conditions adverse to quality. However, the licensee did not assure that the cause of the condition was determined and corrective actions were taken to preclude repetition. Reliability of the inverters was reasonably within the licensee's ability to foresee and correct and these failures could have been prevented. The failure of the inverters resulted in additional significant events, including a plant transient. The Phase 1 SDP screening resulted in the need for a Phase 2 evaluation because the finding contributes to both the likelihood of a reactor trip and the likelihood that mitigating equipment will not be available. The Phase 2 evaluation resulted in a finding with a potential of greater than very low safety significance using the counting rule which then necessitated a Phase 3 analysis. This issue was forwarded to a RIV Senior Reactor Analyst for Phase 3 analysis. Phase 3 analysis concluded that the issue was of very low safety significance. Corrective actions included replacing the at fault aged ferro-resonant transformers in all the safety related Class 1E inverters. This finding had crosscutting issues associated with problem identification and resolution because personnel failed to correct degraded conditions.
Inspection Report# : 2004002*(pdf)*

Significance: G Dec 27, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Inappropriate operator response to an event resulted in multiple pressurizer PORV lifts during operations ina water solid condition.
The inspectors identified a noncited violation of Technical Specification 6.8.1.a regarding Regulatory Guide 1.33 required procedure. Licensee procedure "Conduct of Operations," Revision 21, requires, in part, that if the plant does not perform or respond as expected, operations personnel will take conservative action to return the plant to a known condition. On March 26, 2003, operators inappropriately responded to plant conditions making an event more significant because operators did not understand and control the impact of the restoration of power to an instrumentation panel. They also did not understand the interactions between the normal pressurizer controller and the cold overpressure mitigation system. This issue was greater than minor because it affected the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations, in that operators contributed to initiating this event and making it more significant. The performance deficiency was determined to represent a finding of very low safety significance. This was based on a Phase 1 screening in accordance with Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." The major factors in this determination were the continued availability of methods to control reactor coolant system pressure and the short period of time that the cold overpressure mitigation system was nonfunctional.
Inspection Report# : 2003004*(pdf)*

Mitigating Systems

Significance: G Jul 07, 2004
Identified By: NRC
Item Type: FIN Finding
Fire safe shutdown analysis did not account for the impact of reactor coolant seal leakage.
A Green finding was identified associated with Fire Safe Shutdown Analysis because the licensee had not accounted for the impact of expected reactor coolant pump seal leakage. The licensee's Fire Safe Shutdown Analysis credited charging borated water for maintaining both reactivity control and reactor coolant inventory control functions. However, in a number of fire areas charging was procedurally stopped to avoid damaging the charging pumps as a result of a spurious closing of either of the motor-operated volume control tank suction valves. The Operator Action List directed establishing charging within 2 hours. The inspector determined that there was no analytical basis for allowing charging to be secured this long. Because the licensee was able to re-perform the safe shutdown analyses and demonstrate that the plant could meet its fire safe shutdown design without charging or seal injection for 2 hours, no violation of NRC requirements existed. This issue was determined to be more than minor because it was similar to Example 3.i of Manual Chapter 0612, Appendix E in that the Fire Safe Shutdown Analysis had to be re-performed to assure that the acceptance criteria were met. This issue affected the Mitigating Systems Cornerstone because it related to the availability of charging when it was required to mitigate the effects of a fire. This issue was determined to have very low safety significance because it involved a design deficiency confirmed not to result in a loss of function.

Inspection Report# : 2004003*(pdf)*

Barrier Integrity

Significance: G Mar 26, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Containment Integrity Degraded due to failure to maintain plant equipment configuration control.
A noncited violation of Technical Specification 6.8.1 was identified regarding a partially opened flush line valve in the Train B high head safety injection system that provided a containment bypass leak path. This resulted in a condition where the radiological control room dose limits of General Design Criteria 19 and the offsite dose limits of 10 CFR Part 100 would have been exceeded in the event of a design basis accident. This finding is greater than minor because the finding is associated with the configuration control attribute of the barrier integrity cornerstone and affects the cornerstone objective to provide reasonable assurance that the physical design barrier would protect the public against a release caused by a loss of coolant accident. A Phase 2 evaluation was required because the finding represented an actual open pathway in the physical integrity of reactor containment. The Phase 2 evaluation determined that the leak rate would be less than 10 percent of the containment volume. Because the leakage from containment to the environment was not greater than 100 percent of the containment volume per day, in accordance with NRC Inspection Manual Chapter 0609, Appendix H, Section 6.1, step 3, "Phase 2 Assessment," this finding was of very low risk significance .
Inspection Report# : 2004004*(pdf)*

Significance: G Mar 05, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to comply with Technical Specification surveillance requirements for control room envelope.
A noncited violation of Technical Specification 3.7.7.c and 4.7.7.e.3 was identified regarding control room envelope heating, ventilation, and air conditioning testing that identified some control room envelope areas not being at 1/8-inch water gauge positive pressure with respect to an adjacent area as required. The licensee requested and received a Notice of Enforcement Discretion (04-06-001) for Technical Specification 3.7.7.c requirements. The failure to demonstrate control room operability in accordance with Technical Specification 4.7.7.e.3 is a performance deficiency. The finding is more than minor because it affected the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the operational capability of the control room envelope heating, ventilation, and air conditioning boundary. The finding screened as Green, very low safety significance, in Phase 1 of the significance determination process because it represented a degradation of only the radiological barrier function provided for the control room.
Inspection Report# : 2004004*(pdf)*

Significance: G Jan 21, 2004
Identified By: Self Disclosing

Item Type: NCV NonCited Violation
Inadequate procedure results in relief valve opening.
A Green noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for an inadequate procedure that resulted in a letdown pressure relief valve opening during a letdown orifice swap. Operators failed to manipulate the letdown orifice isolation valve in a manner that properly controlled pressure in the chemical and volume control system. As a result, the letdown line relief valve opened, diverting reactor coolant system inventory to the primary relief tank. Corrective actions for this event included enhancing the procedure by adding notes and precautions and holding lessons learned sessions with operators. This finding is greater than minor because the opening of the letdown relief valve increased the risk of an initiating event of an interfacing system small loss of coolant accident and degraded the reactor coolant system barrier integrity and therefore could be reasonably viewed as a precursor to a significant event. A Phase 1 screening passed to a Phase 2 evaluation because the letdown line relief that lifted could have failed to reseat or could have continually blown down if not isolated. The Phase 2 evaluation resulted in a Green determination. However, the result was unreliable because the tool did not accurately model the event. Under the Phase 3 analysis, a Region IV Senior Reactor Analyst evaluated several scenarios involving mechanical and human error failures that could result in the failure of the safety relief to close and/or failure of letdown isolation contributing to the continued draining the reactor coolant system. The result indicated that the risk significance of the performance deficiency that caused the event was very low.

Inspection Report# : 2004003*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Sep 02, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to use a proper high radiation area radiation work permit.
A self-revealing noncited violation of Technical Specification 6.12.1 was reviewed because a worker entered a high radiation area without proper radiation work permit authorization. On July 28, 2004, an individual received an electronic personal dosimeter alarm after entering a high radiation area in Pipe Penetration Room 211. The radiation work permit used by the individual did not allow entry into such areas. The finding was entered into the licensee's corrective action program. The failure to have proper radiation work permit authorization prior to entering a high radiation area is a performance deficiency. This finding is greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affected the cornerstone objective, which is to ensure adequate protection of the worker health and safety from exposure to radiation. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. In addition, this finding had a crosscutting aspect associated with human performance.
Inspection Report# : 2004004*(pdf)*

Significance: G Sep 02, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform a radiological survey.
The inspector identified a noncited violation of 10 CFR 20.1501(a) because a radiological survey was not performed before work commenced. On April 4, 2004, the Unit 2 reactor head was lifted to a 15 - 20-inch hold point during a shift change. Once the hold point was reached, workers began staging stud hole cover equipment near the reactor head flange before a survey was taken to determine the radiological conditions. Immediate corrective actions were to suspend the work activity, move the workers to a low dose area, perform the survey, and inform the workers of the current radiological conditions. In addition, the finding was entered into the licensee's corrective action program. The failure to perform a radiological survey before commencing work activity is a performance deficiency. This finding is greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affected the cornerstone objective, which is to ensure adequate protection of the worker health and safety from exposure to radiation. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. In addition, this finding had cross-cutting aspects associated with human performance and problem identification and resolution.
Inspection Report# : 2004004*(pdf)*

Significance: G Apr 16, 2004

Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Two examples of failure to control high radiation areas.
The inspector reviewed two examples of a Green noncited violation of Technical Specification 6.12.1, in which the licensee failed to control high radiation areas. On May 3, 2003, the licensee identified, during routine surveys, an uncontrolled high radiation area in Unit 1, Room 108C. The licensee initially concluded that the apparent cause was a plant system that introduced unpredictable dose rates. However, as a result of the inspector's questions, the licensee reviewed the matter further and concluded the cause was a lack of plant system knowledge on the part of some radiation protection personnel. The licensee re-opened the original condition report and re-entered it to the corrective action program. The licensee was alerted to a second example when a worker's electronic dosimeter alarmed on April 6, 2004, as the individual worked on scaffolding under Unit 2 Steam Generators B and C. The dose rates were not identified before the worker entered the area because the responsible radiation protection technician was unaware of the existence of drain lines from Steam Generators B and C. The licensee placed the finding into its corrective action program.
The failures to correctly control high radiation areas were performance deficiencies. These examples of a finding were greater than minor because they were associated with one of the cornerstone attributes and affected the cornerstone objective, in that, inadequate exposure controls of high radiation areas affected the licensee's ability to ensure adequate protection of worker health and safety from exposure to radiation. Because the examples of a finding involved the potential for workers to receive significant, unplanned, unintended dose as a result of conditions contrary to technical specification requirements, the inspector used the Occupational Radiation Safety Significance Determination Process described in Manual Chapter 0609, Appendix C, to analyze the significance of the examples. The inspector determined that the examples were of very low safety significance because they did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. The first example of this finding also had crosscutting aspects associated with problem identification and resolution. The original cause determination was inadequate.
Inspection Report# : 2004003*(pdf)*

Significance: G Jan 08, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Three examples of the failure to follow Technical Specification required procedure.
The inspectors identified three examples of a noncited violation of Technical Specification 6.8.1(a) because the licensee failed to follow procedural requirements. Procedure 0PGP03-ZA-0010, required station personnel to stop and resolve an issue when the performance of a procedure step would not have achieved the desired result. During the initial setup and leak check of a reusable waste container, the operator was required to ensure that valve 1(2)-WS-0077 was open. However, the procedure incorrectly referred to valve 1(2)-WS-0077 instead of the correct valve 1(2)-WS-0079. Ensuring valve 1(2)-WS-0077 was open would not have achieved the desired result. On April 20, July 8, and July 20, 2003, the licensee failed to stop and resolve the error with the reference to the incorrect valve. The failure to follow procedural requirements are three examples of a performance deficiency. The finding is greater than minor because it could be reasonably viewed as a precursor to a significant event and it affected the Occupational Radiation Safety cornerstone objective, which is to ensure adequate protection of worker health and safety from exposure to radiation. The finding was associated with the cornerstone attribute of Program and Process. When processed through the Occupational Radiation Safety Significance Determination Process (SDP), the finding was found to have very low safety significance because it was not associated with ALARA planning or work controls, there was no overexposure or a substantial potential for overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2004002*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : December 29, 2004

South Texas 2
4Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Jan 23, 2004
Identified By: NRC
Item Type: FIN Finding
Inappropriate operator response to an event resulted in a plant transient.
A finding was identified for the failure of reactor operators to appropriately respond to an event that resulted in a plant transient. On January 23, 2004, operators inappropriately responded to plant conditions which resulted in an event becoming more significant. Operators appropriately diagnosed the failure and operator response was clearly understood and communicated. However, operators inappropriately manipulated the steam generator level controls and did not control steam generator levels in the A and B steam generators. An automatic reactor trip occurred due to high steam generator level in the B steam generator. This issue was more than minor because it was similar to Example 4.b in Manual Chapter 0612, Appendix E, "Examples of Minor Issues," and it met the "not minor if" criteria, in that the error resulted in a plant transient. This issue affected the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions, in that operators inappropriately manipulated the steam generator level controls and did not control steam generator levels. A Phase 1 Significance Determination Process determined that the performance deficiency represented a finding of very low risk significance (Green) because it did not contribute to a primary or secondary loss of coolant accident, did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or function will not be available, and did not increase the likelihood of a fire or internal/external flood. This finding also had crosscutting issues associated with human performance because personnel failed to adequately control steam generator levels due to misoperation of plant equipment.
Inspection Report# : 2004002*(pdf)*

Significance: G Jan 23, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Ferro-Resonant Transformer Failures in Class 1E Inverters
A noncited violation of 10 CFR Part 50 Appendix B, Criterion XVl, Corrective Action, was identified for the failure to implement effective corrective action for inverter failures that occurred at the South Texas Project. The licensee had identified previous failures of the Class 1E 7.5 kV inverters as significant conditions adverse to quality. However, the licensee did not assure that the cause of the condition was determined and corrective actions were taken to preclude repetition. Reliability of the inverters was reasonably within the licensee's ability to foresee and correct and these failures could have been prevented. The failure of the inverters resulted in additional significant events, including a plant transient. The Phase 1 SDP screening resulted in the need for a Phase 2 evaluation because the finding contributes to both the likelihood of a reactor trip and the likelihood that mitigating equipment will not be available. The Phase 2 evaluation resulted in a finding with a potential of greater than very low safety significance using the counting rule which then necessitated a Phase 3 analysis. This issue was forwarded to a RIV Senior Reactor Analyst for Phase 3 analysis. Phase 3 analysis concluded that the issue was of very low safety significance. Corrective actions included replacing the at fault aged ferro-resonant transformers in all the safety related Class 1E inverters. This finding had crosscutting issues associated with problem identification and resolution because personnel failed to correct degraded conditions.
Inspection Report# : 2004002*(pdf)*

Mitigating Systems

Significance: G Nov 04, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate Maintenance Procedure for the Essential Chiller's Oil Pump
A self-revealing, noncited violation of 10CFR 50, Appendix B, Criterion V was documented due to an inadequate maintenance procedure that resulted in chiller operation with a misaligned oil pump. The misalignment caused unplanned chiller outages, which rendered it inoperable. The chillers provide water for temperature control of safe shutdown equipment rooms. This finding included cross-cutting aspects for prior missed opportunities to identify the inadequate procedure. Based on the results of a Significance Determination Process (SDP) using Manual Chapter (MC) 0609, Appendix A1, Phase 1 work sheet, this finding was determined to have very low safety significance. The finding was not a design or qualification deficiency of safety related equipment, did not result in a loss of a safety function, did not result in a loss of a safety function of a single train for greater than its allowed Technical Specification outage time, and screened out for external events. The failure to have an adequate maintenance procedure for the essential chiller's oil pump is a violation of 10 CFR 50, Appendix B, Criterion V.

Inspection Report# : 2004011*(pdf)*

Significance: G Nov 04, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Two Failures to take Timely Corrective Action to REplace Defective Relays
The licensee did not promptly replace Potter & Brumfield relays with known manufacturing flaws that impacted both single stack and double stack relays manufactured before 1990. After being alerted to a manufacturing flaw through 10 CFR Part 21 reports and an information notice and after a double stack relay failed because of this manufacturing flaw, the licensee failed to promptly replace the single coil stack Potter & Brumfield relays installed at the facility. In 2004, a single coil stack relay failed, which again affected the operability of an essential chiller. The licensee then decided to replace all the essential chiller normally energized Potter & Brumfield relays manufactured before 1990. The licensee did not promptly replace Potter & Brumfield relays, which had exceeded their service life. During a repair in 2003, the licensee identified that all of the essential chiller 22R Potter & Brumfield relays had exceeded their service life. While the licensee planned to replace outdated relays, their corrective actions were not prompt and in 2004, another chiller's 22R relay failed, which again affected the operation of an essential chiller. Based on the results of a Significance Determination Process (SDP) using Manual Chapter (MC) 0609, Appendix A1, Phase 1 work sheet, this finding was determined to have very low safety significance. The finding was not a design or qualification deficiency of safety related equipment, did not result in a loss of a safety function, did not result in a loss of a safety function of a single train for greater than its allowed Technical Specification outage time, and screened out for external events. Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, requires that conditions adverse to quality causes be promptly corrected. The licensee failed to take timely corrective actions to replace the defective Potter and Brumfield relays and 22R relays.
Inspection Report# : 2004011*(pdf)*

Significance: G Sep 09, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Use Authorized Document to Perform Quality Related Work
A Green noncited violation of 10 CFR Part 50, Appendix B, Criteria V, was identified regarding a failure of maintenance personnel to obtain an authorized work document containing instructions, procedures, or drawings, prior to performing maintenance on the fuel pump metering rods of emergency diesel Generator 21. Without authorized work documents issued there were no instructions or procedures available and no quantitative or qualitative acceptance criteria established. The operability of emergency diesel Generator 21 immediately following the maintenance was indeterminate. However, after learning of the unauthorized maintenance, the licensee successfully completed operability testing of the diesel. The failure to obtain an authorized work document containing instructions, procedures, or drawings prior to performing maintenance on an emergency diesel generator is a performance deficiency. The finding was determined to be greater than minor because it affected the equipment performance attribute of the reactor safety mitigating system cornerstone and the finding was associated with the operability, availability, and reliability of the emergency diesel generator. Using Phase 1 of the Significance Determination Process, the finding was determined to screen as Green because the finding was not a design or qualification deficiency, it did not represent the loss of a safety function, and it did not screen as potentially risk significant due to a seismic, flooding, or severe weather event .
Inspection Report# : 2004005*(pdf)*

Significance: G Jul 07, 2004
Identified By: NRC
Item Type: FIN Finding
Fire safe shutdown analysis did not account for the impact of reactor coolant seal leakage.
A Green finding was identified associated with Fire Safe Shutdown Analysis because the licensee had not accounted for the impact of expected reactor coolant pump seal leakage. The licensee's Fire Safe Shutdown Analysis credited charging borated water for maintaining both reactivity control and reactor coolant inventory control functions. However, in a number of fire areas charging was procedurally stopped to avoid damaging the charging pumps as a result of a spurious closing of either of the motor-operated volume control tank suction valves. The Operator Action List directed establishing charging within 2 hours. The inspector determined that there was no analytical basis for allowing charging to be secured this long. Because the licensee was able to re-perform the safe shutdown analyses and demonstrate that the plant could meet its fire safe shutdown design without charging or seal injection for 2 hours, no violation of NRC requirements existed. This issue was determined to be more than minor because it was similar to Example 3.i of Manual Chapter 0612, Appendix E in that the Fire Safe Shutdown Analysis had to be re-performed to assure that the acceptance criteria were met. This issue affected the Mitigating Systems Cornerstone because it related to the availability of charging when it was required to mitigate the effects of a fire. This issue was determined to have very low safety significance because it involved a design deficiency confirmed not to result in a loss of function.

Inspection Report# : 2004003*(pdf)*

Barrier Integrity

Significance: G Mar 26, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Containment Integrity Degraded due to failure to maintain plant equipment configuration control.
A noncited violation of Technical Specification 6.8.1 was identified regarding a partially opened flush line valve in the Train B high head safety injection system that provided a containment bypass leak path. This resulted in a condition where the radiological control room dose limits of General Design Criteria 19 and the offsite dose limits of 10 CFR Part 100 would have been exceeded in the event of a design basis accident. This finding is greater than minor because the finding is associated with the configuration control attribute of the barrier integrity cornerstone and affects the cornerstone objective to provide reasonable assurance that the physical design barrier would protect the public against a release caused by a loss of coolant accident. A Phase 2 evaluation was required because the finding represented an actual open pathway in the physical integrity of reactor containment. The Phase 2 evaluation determined that the leak rate would be less than 10 percent of the containment volume. Because the leakage from containment to the environment was not greater than 100 percent of the containment volume per day, in accordance with NRC Inspection Manual Chapter 0609, Appendix H, Section 6.1, step 3, "Phase 2 Assessment," this finding was of very low risk significance .
Inspection Report# : 2004004*(pdf)*

Significance: G Mar 05, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to comply with Technical Specification surveillance requirements for control room envelope.
A noncited violation of Technical Specification 3.7.7.c and 4.7.7.e.3 was identified regarding control room envelope heating, ventilation, and air conditioning testing that identified some control room envelope areas not being at 1/8-inch water gauge positive pressure with respect to an adjacent area as required. The licensee requested and received a Notice of Enforcement Discretion (04-06-001) for Technical Specification 3.7.7.c requirements. The failure to demonstrate control room operability in accordance with Technical Specification 4.7.7.e.3 is a performance deficiency. The finding is more than minor because it affected the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the operational capability of the control room envelope heating, ventilation, and air conditioning boundary. The finding screened as Green, very low safety significance, in Phase 1 of the significance determination process because it represented a degradation of only the radiological barrier function provided for the control room.
Inspection Report# : 2004004*(pdf)*

Significance: G Jan 21, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate procedure results in relief valve opening.
A Green noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for an inadequate procedure that resulted in a letdown pressure relief valve opening during a letdown orifice swap. Operators failed to manipulate the letdown orifice isolation valve in a manner that properly controlled pressure in the chemical and volume control system. As a result, the letdown line relief valve opened, diverting reactor coolant system inventory to the primary relief tank. Corrective actions for this event included enhancing the procedure by adding notes and precautions and holding lessons learned sessions with operators. This finding is greater than minor because the opening of the letdown relief valve increased the risk of an initiating event of an interfacing system small loss of coolant accident and degraded the reactor coolant system barrier integrity and therefore could be reasonably viewed as a precursor to a significant event. A Phase 1 screening passed to a Phase 2 evaluation because the letdown line relief that lifted could have failed to reseat or could have continually blown down if not isolated. The Phase 2 evaluation resulted in a Green determination. However, the result was unreliable because the tool did not accurately model the event. Under the Phase 3 analysis, a Region IV Senior Reactor Analyst evaluated several scenarios involving mechanical and human error failures that could result in the failure of the safety relief to close and/or failure of letdown isolation contributing to the continued draining the reactor coolant system. The result indicated that the risk significance of the performance deficiency that caused the event was very low.

Inspection Report# : 2004003*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Sep 02, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to use a proper high radiation area radiation work permit.
A self-revealing noncited violation of Technical Specification 6.12.1 was reviewed because a worker entered a high radiation area without proper radiation work permit authorization. On July 28, 2004, an individual received an electronic personal dosimeter alarm after entering a high radiation area in Pipe Penetration Room 211. The radiation work permit used by the individual did not allow entry into such areas. The finding was entered into the licensee's corrective action program. The failure to have proper radiation work permit authorization prior to entering a high radiation area is a performance deficiency. This finding is greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affected the cornerstone objective, which is to ensure adequate protection of the worker health and safety from exposure to radiation. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. In addition, this finding had a crosscutting aspect associated with human performance.
Inspection Report# : 2004004*(pdf)*

Significance: G Sep 02, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform a radiological survey.
The inspector identified a noncited violation of 10 CFR 20.1501(a) because a radiological survey was not performed before work commenced. On April 4, 2004, the Unit 2 reactor head was lifted to a 15 - 20-inch hold point during a shift change. Once the hold point was reached, workers began staging stud hole cover equipment near the reactor head flange before a survey was taken to determine the radiological conditions. Immediate corrective actions were to suspend the work activity, move the workers to a low dose area, perform the survey, and inform the workers of the current radiological conditions. In addition, the finding was entered into the licensee's corrective action program. The failure to perform a radiological survey before commencing work activity is a performance deficiency. This finding is greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affected the cornerstone objective, which is to ensure adequate protection of the worker health and safety from exposure to radiation. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. In addition, this finding had cross-cutting aspects associated with human performance and problem identification and resolution.
Inspection Report# : 2004004*(pdf)*

Significance: G Apr 16, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Two examples of failure to control high radiation areas.
The inspector reviewed two examples of a Green noncited violation of Technical Specification 6.12.1, in which the licensee failed to control high radiation areas. On May 3, 2003, the licensee identified, during routine surveys, an uncontrolled high radiation area in Unit 1, Room 108C. The licensee initially concluded that the apparent cause was a plant system that introduced unpredictable dose rates. However, as a result of the inspector's questions, the licensee reviewed the matter further and concluded the cause was a lack of plant system knowledge on the part of some radiation protection personnel. The licensee re-opened the original condition report and re-entered it to the corrective action program. The licensee was alerted to a second example when a worker's electronic dosimeter alarmed on April 6, 2004, as the individual worked on scaffolding under Unit 2 Steam Generators B and C. The dose rates were not identified before the worker entered the area because the responsible radiation protection technician was unaware of the existence of drain lines from Steam Generators B and C. The licensee placed the finding into its corrective action program.
The failures to correctly control high radiation areas were performance deficiencies. These examples of a finding were greater than minor because they were associated with one of the cornerstone attributes and affected the cornerstone objective, in that, inadequate exposure controls of high radiation areas affected the licensee's ability to ensure adequate protection of worker health and safety from exposure to radiation. Because the examples of a finding involved the potential for workers to receive significant, unplanned, unintended dose as a result of conditions contrary to technical specification requirements, the inspector used the Occupational Radiation Safety Significance Determination Process described in Manual Chapter 0609, Appendix C, to analyze the significance of the examples. The inspector determined that the examples were of very low safety significance because they did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. The first example of this finding also had crosscutting aspects associated with problem identification and resolution. The original cause determination was inadequate.
Inspection Report# : 2004003*(pdf)*

Significance: G Jan 08, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Three examples of the failure to follow Technical Specification required procedure.
The inspectors identified three examples of a noncited violation of Technical Specification 6.8.1(a) because the licensee failed to follow

procedural requirements. Procedure 0PGP03-ZA-0010, required station personnel to stop and resolve an issue when the performance of a procedure step would not have achieved the desired result. During the initial setup and leak check of a reusable waste container, the operator was required to ensure that valve 1(2)-WS-0077 was open. However, the procedure incorrectly referred to valve 1(2)-WS-0077 instead of the correct valve 1(2)-WS-0079. Ensuring valve 1(2)-WS-0077 was open would not have achieved the desired result. On April 20, July 8, and July 20, 2003, the licensee failed to stop and resolve the error with the reference to the incorrect valve. The failure to follow procedural requirements are three examples of a performance deficiency. The finding is greater than minor because it could be reasonably viewed as a precursor to a significant event and it affected the Occupational Radiation Safety cornerstone objective, which is to ensure adequate protection of worker health and safety from exposure to radiation. The finding was associated with the cornerstone attribute of Program and Process. When processed through the Occupational Radiation Safety Significance Determination Process (SDP), the finding was found to have very low safety significance because it was not associated with ALARA planning or work controls, there was no overexposure or a substantial potential for overexposure, and the ability to assess dose was not compromised.
Inspection Report# : 2004002*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: N/A Nov 04, 2004
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The licensee's processes to identify, prioritize, evaluate, and correct problems have improved during the last six to nine months. The processes were generally effective; thresholds for identifying issues were low and, in most cases, corrective actions were adequate to address conditions adverse to quality. However, the team noted that, due to the lack of aggressive problem identification and resolution in the past, two vital plant components experienced several failures. The components were the essential chillers and Class 1E inverters. The team also identified that the licensee undertook extensive corrective actions earlier in 2004 to address these failures. The team concluded that a positive safety-conscience work environment exists at the South Texas Project. The team determined that employees feel free to raise safety concerns to their supervision, the employee concerns program, and the NRC.

Inspection Report# : 2004011*(pdf)*

Last modified : March 09, 2005

South Texas 2
1Q/2005 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Feb 28, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Essential Chiller 2C Failure to Start.
A self-revealing noncited violation of Technical Specification 3.7.14 was reviewed for Essential Chiller 22C being inoperable for longer than the allowed seven days without required actions being performed. The licensee reported the event on Licensee Event Report 0500499/2005-002. The failure to maintain Essential Chiller 22C operable in accordance with Technical Specification 3.7.14 is a performance deficiency. The finding was determined to be greater than minor because it affected the equipment performance attribute of the Reactor Safety Mitigating System Cornerstone. Additionally, the finding was associated with the operability, availability and reliability of the essential chiller. During a Phase 1 screening of the Significance Determination Process, the finding was determined to require a Phase 2 evaluation because it represented actual loss of safety function of a single train for greater than its Technical Specification Allowed Outage Time. After processing through Phase 2, the violation was determined to be of very low safety significance (Green) because the other two trains were operable
Inspection Report# : 2005002*(pdf)*

Significance: G Jan 04, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Initiate a Condition Report When A Degrading Trend was Identified.
A self-revealing noncited violation of 10 CFR Part50, Appendix B, Criterion XVI was reviewed for several failures of the licensee's problem identification and resolution program to identify and evaluate, and promptly correct a degraded bearing condition and lube water flow problem on Essential Cooling Water Pump 1B. The licensee identified abnormal essential cooling water pump lube water flow conditions and suspected pump bearing damage, conditions adverse to quality, but the licensee's corrective measures were not prompt to evaluate the impact on continued operation. In some cases the licensee did not initiate a condition report. The failure to document and evaluate adverse conditions in the Corrective Action Program is a performance deficiency because the licensee is expected to follow quality related procedures. This issue was greater than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone. The finding had very low safety significance (Green) because the affected equipment remained functional. This issue involved problem identification and resolution crosscutting aspects associated with identifying and evaluating conditions adverse to quality.

Inspection Report# : 2005002*(pdf)*

Significance: G Nov 04, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate Maintenance Procedure for the Essential Chiller's Oil Pump
A self-revealing, noncited violation of 10CFR 50, Appendix B, Criterion V was documented due to an inadequate maintenance procedure that resulted in chiller operation with a misaligned oil pump. The misalignment caused unplanned chiller outages, which rendered it inoperable. The chillers provide water for temperature control of safe shutdown equipment rooms. This finding included cross-cutting aspects for prior missed opportunities to identify the inadequate procedure. Based on the results of a Significance Determination Process (SDP) using Manual Chapter (MC) 0609, Appendix A1, Phase 1 work sheet, this finding was determined to have very low safety significance. The finding was not a design or qualification deficiency of safety related equipment, did not result in a loss of a safety function, did not result in a loss of a safety function of a single train for greater than its allowed Technical Specification outage time, and screened out for external events. The failure to have an adequate maintenance procedure for the essential chiller's oil pump is a violation of 10 CFR 50, Appendix B, Criterion V.
Inspection Report# : 2004011*(pdf)*

Significance: G Nov 04, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation

Two Failures to take Timely Corrective Action to REplace Defective Relays
The licensee did not promptly replace Potter & Brumfield relays with known manufacturing flaws that impacted both single stack and double stack relays manufactured before 1990. After being alerted to a manufacturing flaw through 10 CFR Part 21 reports and an information notice and after a double stack relay failed because of this manufacturing flaw, the licensee failed to promptly replace the single coil stack Potter & Brumfield relays installed at the facility. In 2004, a single coil stack relay failed, which again affected the operability of an essential chiller. The licensee then decided to replace all the essential chiller normally energized Potter & Brumfield relays manufactured before 1990. The licensee did not promptly replace Potter & Brumfield relays, which had exceeded their service life. During a repair in 2003, the licensee identified that all of the essential chiller 22R Potter & Brumfield relays had exceeded their service life. While the licensee planned to replace outdated relays, their corrective actions were not prompt and in 2004, another chiller's 22R relay failed, which again affected the operation of an essential chiller. Based on the results of a Significance Determination Process (SDP) using Manual Chapter (MC) 0609, Appendix A1, Phase 1 work sheet, this finding was determined to have very low safety significance. The finding was not a design or qualification deficiency of safety related equipment, did not result in a loss of a safety function, did not result in a loss of a safety function of a single train for greater than its allowed Technical Specification outage time, and screened out for external events. Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, requires that conditions adverse to quality causes be promptly corrected. The licensee failed to take timely corrective actions to replace the defective Potter and Brumfield relays and 22R relays.
Inspection Report# : 2004011*(pdf)*

Significance: G Sep 09, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Use Authorized Document to Perform Quality Related Work
A Green noncited violation of 10 CFR Part 50, Appendix B, Criteria V, was identified regarding a failure of maintenance personnel to obtain an authorized work document containing instructions, procedures, or drawings, prior to performing maintenance on the fuel pump metering rods of emergency diesel Generator 21. Without authorized work documents issued there were no instructions or procedures available and no quantitative or qualitative acceptance criteria established. The operability of emergency diesel Generator 21 immediately following the maintenance was indeterminate. However, after learning of the unauthorized maintenance, the licensee successfully completed operability testing of the diesel. The failure to obtain an authorized work document containing instructions, procedures, or drawings prior to performing maintenance on an emergency diesel generator is a performance deficiency. The finding was determined to be greater than minor because it affected the equipment performance attribute of the reactor safety mitigating system cornerstone and the finding was associated with the operability, availability, and reliability of the emergency diesel generator. Using Phase 1 of the Significance Determination Process, the finding was determined to screen as Green because the finding was not a design or qualification deficiency, it did not represent the loss of a safety function, and it did not screen as potentially risk significant due to a seismic, flooding, or severe weather event .
Inspection Report# : 2004005*(pdf)*

Significance: G Jul 07, 2004
Identified By: NRC
Item Type: FIN Finding
Fire safe shutdown analysis did not account for the impact of reactor coolant seal leakage.
A Green finding was identified associated with Fire Safe Shutdown Analysis because the licensee had not accounted for the impact of expected reactor coolant pump seal leakage. The licensee's Fire Safe Shutdown Analysis credited charging borated water for maintaining both reactivity control and reactor coolant inventory control functions. However, in a number of fire areas charging was procedurally stopped to avoid damaging the charging pumps as a result of a spurious closing of either of the motor-operated volume control tank suction valves. The Operator Action List directed establishing charging within 2 hours. The inspector determined that there was no analytical basis for allowing charging to be secured this long. Because the licensee was able to re-perform the safe shutdown analyses and demonstrate that the plant could meet its fire safe shutdown design without charging or seal injection for 2 hours, no violation of NRC requirements existed. This issue was determined to be more than minor because it was similar to Example 3.i of Manual Chapter 0612, Appendix E in that the Fire Safe Shutdown Analysis had to be re-performed to assure that the acceptance criteria were met. This issue affected the Mitigating Systems Cornerstone because it related to the availability of charging when it was required to mitigate the effects of a fire. This issue was determined to have very low safety significance because it involved a design deficiency confirmed not to result in a loss of function.

Inspection Report# : 2004003*(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Sep 02, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to use a proper high radiation area radiation work permit.
A self-revealing noncited violation of Technical Specification 6.12.1 was reviewed because a worker entered a high radiation area without proper radiation work permit authorization. On July 28, 2004, an individual received an electronic personal dosimeter alarm after entering a high radiation area in Pipe Penetration Room 211. The radiation work permit used by the individual did not allow entry into such areas. The finding was entered into the licensee's corrective action program. The failure to have proper radiation work permit authorization prior to entering a high radiation area is a performance deficiency. This finding is greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affected the cornerstone objective, which is to ensure adequate protection of the worker health and safety from exposure to radiation. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. In addition, this finding had a crosscutting aspect associated with human performance.
Inspection Report# : 2004004*(pdf)*

Significance: G Sep 02, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform a radiological survey.
The inspector identified a noncited violation of 10 CFR 20.1501(a) because a radiological survey was not performed before work commenced. On April 4, 2004, the Unit 2 reactor head was lifted to a 15 - 20-inch hold point during a shift change. Once the hold point was reached, workers began staging stud hole cover equipment near the reactor head flange before a survey was taken to determine the radiological conditions. Immediate corrective actions were to suspend the work activity, move the workers to a low dose area, perform the survey, and inform the workers of the current radiological conditions. In addition, the finding was entered into the licensee's corrective action program. The failure to perform a radiological survey before commencing work activity is a performance deficiency. This finding is greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affected the cornerstone objective, which is to ensure adequate protection of the worker health and safety from exposure to radiation. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. In addition, this finding had cross-cutting aspects associated with human performance and problem identification and resolution.
Inspection Report# : 2004004*(pdf)*

Significance: G Apr 16, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Two examples of failure to control high radiation areas.
The inspector reviewed two examples of a Green noncited violation of Technical Specification 6.12.1, in which the licensee failed to control high radiation areas. On May 3, 2003, the licensee identified, during routine surveys, an uncontrolled high radiation area in Unit 1, Room 108C. The licensee initially concluded that the apparent cause was a plant system that introduced unpredictable dose rates. However, as a result of the inspector's questions, the licensee reviewed the matter further and concluded the cause was a lack of plant system knowledge on the part of some radiation protection personnel. The licensee re-opened the original condition report and re-entered it to the corrective action program. The licensee was alerted to a second example when a worker's electronic dosimeter alarmed on April 6, 2004, as the individual worked on scaffolding under Unit 2 Steam Generators B and C. The dose rates were not identified before the worker entered the area because the responsible radiation protection technician was unaware of the existence of drain lines from Steam Generators B and C. The licensee placed the finding into its corrective action program.
The failures to correctly control high radiation areas were performance deficiencies. These examples of a finding were greater than minor because they were associated with one of the cornerstone attributes and affected the cornerstone objective, in that, inadequate exposure controls of high radiation areas affected the licensee's ability to ensure adequate protection of worker health and safety from exposure to radiation. Because the examples of a finding involved the potential for workers to receive significant, unplanned, unintended dose as a result of conditions contrary to technical specification requirements, the inspector used the Occupational Radiation Safety Significance Determination Process described in Manual Chapter 0609, Appendix C, to analyze the significance of the examples. The inspector determined that the examples were of very low safety significance because they did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. The first example of this finding also had crosscutting aspects associated with problem identification and resolution. The original cause determination was inadequate.
Inspection Report# : 2004003*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: N/A Nov 04, 2004
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The licensee's processes to identify, prioritize, evaluate, and correct problems have improved during the last six to nine months. The processes were generally effective; thresholds for identifying issues were low and, in most cases, corrective actions were adequate to address conditions adverse to quality. However, the team noted that, due to the lack of aggressive problem identification and resolution in the past, two vital plant components experienced several failures. The components were the essential chillers and Class 1E inverters. The team also identified that the licensee undertook extensive corrective actions earlier in 2004 to address these failures. The team concluded that a positive safety-conscience work environment exists at the South Texas Project. The team determined that employees feel free to raise safety concerns to their supervision, the employee concerns program, and the NRC.

Inspection Report# : 2004011*(pdf)*

Last modified : June 17, 2005

South Texas 2
2Q/2005 Plant Inspection Findings

Initiating Events

Significance: G May 12, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedures Result in Relief Valve Openings During the Performance of Surveillance Tests
Green. The inspectors identified a noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, Item 8.b.(1).i, "Emergency Core Cooling Tests," for inadequate procedures that resulted in a letdown pressure relief valve opening during the performance of Plant Surveillance Procedure 0PSP03-RH-0009, "Residual Heat Removal System Valve Operability Test," Revision 5, on March 16, 2004, and again during performance of preventive maintenance procedure PM IC-2-89001568 on May 2, 2005. This finding was a performance deficiency because it had the actual impact of lifting a relief valve and therefore is associated with an increase in the likelihood of an initiating event. The finding was of greater than minor significance since it was associated with the cornerstone attribute of Initiating Events and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding was only of very low safety significance because, assuming worst case degradation, the lifted relief valve would not have resulted in exceeding the technical specification limit for identified reactor coolant system leakage. This issue also involved problem identification and resolution crosscutting aspects in the area of prioritization and evaluation. Additionally, the event had cross-cutting aspects in the area of human performance related to procedural adequacy and equipment knowledge.

Inspection Report# : 2005003*(pdf)*

Mitigating Systems

Significance: G Jun 24, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Reactor Coolant Leakage Detection System Calibration
Green. The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, associated with the licensee's failure to assure that applicable regulatory requirements and the design basis for the containment radiation gas monitors were correctly translated into the reactor containment building radiation monitor setpoints. This deficiency resulted in the radiation monitors being incapable of performing the design basis function to detect a one gallon per minute reactor coolant system leak within one hour in accordance with the licensee's commitment to Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems." This finding was a performance deficiency because the reactor containment building radiation monitor was not capable of performing the design basis function for an extended period of time. The finding was of greater than minor significance because the failure to alarm by the containment radiation monitor resulted in potential impact on reactor safety and adversely affected the reactor coolant leakage performance attribute of the Barrier Integrity cornerstone. The finding was only of very low safety significance because other methods of reactor coolant system leak detection were available to the licensee and operators responded to the trending in the volume control tank level and then noted the rising trend recorded by the particulate radiation monitor. The failure of the radiation monitor to alarm within one hour did not contribute to an increase in core damage sequences when evaluated using the Significance Determination Process Phase 2 worksheets.

Inspection Report# : 2005003*(pdf)*

Significance: G Feb 28, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Essential Chiller 2C Failure to Start.
A self-revealing noncited violation of Technical Specification 3.7.14 was reviewed for Essential Chiller 22C being inoperable for longer than the allowed seven days without required actions being performed. The licensee reported the event on Licensee Event Report 0500499/2005-002. The failure to maintain Essential Chiller 22C operable in accordance with Technical Specification 3.7.14 is a performance deficiency. The finding was determined to be greater than minor because it affected the equipment performance attribute of the Reactor Safety Mitigating System Cornerstone. Additionally, the finding was associated with the operability, availability and reliability of the essential chiller. During a Phase 1 screening of the Significance Determination Process, the finding was determined to require a Phase 2 evaluation because it represented actual loss of safety function of a single train for greater than its Technical Specification Allowed Outage Time. After processing through Phase

2, the violation was determined to be of very low safety significance (Green) because the other two trains were operable
Inspection Report# : 2005002*(pdf)*

Significance: G Jan 04, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Initiate a Condition Report When A Degrading Trend was Identified.
A self-revealing noncited violation of 10 CFR Part50, Appendix B, Criterion XVI was reviewed for several failures of the licensee's problem identification and resolution program to identify and evaluate, and promptly correct a degraded bearing condition and lube water flow problem on Essential Cooling Water Pump 1B. The licensee identified abnormal essential cooling water pump lube water flow conditions and suspected pump bearing damage, conditions adverse to quality, but the licensee's corrective measures were not prompt to evaluate the impact on continued operation. In some cases the licensee did not initiate a condition report. The failure to document and evaluate adverse conditions in the Corrective Action Program is a performance deficiency because the licensee is expected to follow quality related procedures. This issue was greater than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone. The finding had very low safety significance (Green) because the affected equipment remained functional. This issue involved problem identification and resolution crosscutting aspects associated with identifying and evaluating conditions adverse to quality.

Inspection Report# : 2005002*(pdf)*

Significance: G Nov 04, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate Maintenance Procedure for the Essential Chiller's Oil Pump
A self-revealing, noncited violation of 10CFR 50, Appendix B, Criterion V was documented due to an inadequate maintenance procedure that resulted in chiller operation with a misaligned oil pump. The misalignment caused unplanned chiller outages, which rendered it inoperable. The chillers provide water for temperature control of safe shutdown equipment rooms. This finding included cross-cutting aspects for prior missed opportunities to identify the inadequate procedure. Based on the results of a Significance Determination Process (SDP) using Manual Chapter (MC) 0609, Appendix A1, Phase 1 work sheet, this finding was determined to have very low safety significance. The finding was not a design or qualification deficiency of safety related equipment, did not result in a loss of a safety function, did not result in a loss of a safety function of a single train for greater than its allowed Technical Specification outage time, and screened out for external events. The failure to have an adequate maintenance procedure for the essential chiller's oil pump is a violation of 10 CFR 50, Appendix B, Criterion V.
Inspection Report# : 2004011*(pdf)*

Significance: G Nov 04, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Two Failures to take Timely Corrective Action to REplace Defective Relays
The licensee did not promptly replace Potter & Brumfield relays with known manufacturing flaws that impacted both single stack and double stack relays manufactured before 1990. After being alerted to a manufacturing flaw through 10 CFR Part 21 reports and an information notice and after a double stack relay failed because of this manufacturing flaw, the licensee failed to promptly replace the single coil stack Potter & Brumfield relays installed at the facility. In 2004, a single coil stack relay failed, which again affected the operability of an essential chiller. The licensee then decided to replace all the essential chiller normally energized Potter & Brumfield relays manufactured before 1990. The licensee did not promptly replace Potter & Brumfield relays, which had exceeded their service life. During a repair in 2003, the licensee identified that all of the essential chiller 22R Potter & Brumfield relays had exceeded their service life. While the licensee planned to replace outdated relays, their corrective actions were not prompt and in 2004, another chiller's 22R relay failed, which again affected the operation of an essential chiller. Based on the results of a Significance Determination Process (SDP) using Manual Chapter (MC) 0609, Appendix A1, Phase 1 work sheet, this finding was determined to have very low safety significance. The finding was not a design or qualification deficiency of safety related equipment, did not result in a loss of a safety function, did not result in a loss of a safety function of a single train for greater than its allowed Technical Specification outage time, and screened out for external events. Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, requires that conditions adverse to quality causes be promptly corrected. The licensee failed to take timely corrective actions to replace the defective Potter and Brumfield relays and 22R relays.
Inspection Report# : 2004011*(pdf)*

Significance: G Sep 09, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Use Authorized Document to Perform Quality Related Work
A Green noncited violation of 10 CFR Part 50, Appendix B, Criteria V, was identified regarding a failure of maintenance personnel to obtain an authorized work document containing instructions, procedures, or drawings, prior to performing maintenance on the fuel pump metering rods of emergency diesel Generator 21. Without authorized work documents issued there were no instructions or procedures available and no quantitative or qualitative acceptance criteria established. The operability of emergency diesel Generator 21 immediately following the

maintenance was indeterminate. However, after learning of the unauthorized maintenance, the licensee successfully completed operability testing of the diesel. The failure to obtain an authorized work document containing instructions, procedures, or drawings prior to performing maintenance on an emergency diesel generator is a performance deficiency. The finding was determined to be greater than minor because it affected the equipment performance attribute of the reactor safety mitigating system cornerstone and the finding was associated with the operability, availability, and reliability of the emergency diesel generator. Using Phase 1 of the Significance Determination Process, the finding was determined to screen as Green because the finding was not a design or qualification deficiency, it did not represent the loss of a safety function, and it did not screen as potentially risk significant due to a seismic, flooding, or severe weather event .
Inspection Report# : 2004005*(pdf)*

Significance: G Jul 07, 2004
Identified By: NRC
Item Type: FIN Finding
Fire safe shutdown analysis did not account for the impact of reactor coolant seal leakage.
A Green finding was identified associated with Fire Safe Shutdown Analysis because the licensee had not accounted for the impact of expected reactor coolant pump seal leakage. The licensee's Fire Safe Shutdown Analysis credited charging borated water for maintaining both reactivity control and reactor coolant inventory control functions. However, in a number of fire areas charging was procedurally stopped to avoid damaging the charging pumps as a result of a spurious closing of either of the motor-operated volume control tank suction valves. The Operator Action List directed establishing charging within 2 hours. The inspector determined that there was no analytical basis for allowing charging to be secured this long. Because the licensee was able to re-perform the safe shutdown analyses and demonstrate that the plant could meet its fire safe shutdown design without charging or seal injection for 2 hours, no violation of NRC requirements existed. This issue was determined to be more than minor because it was similar to Example 3.i of Manual Chapter 0612, Appendix E in that the Fire Safe Shutdown Analysis had to be re-performed to assure that the acceptance criteria were met. This issue affected the Mitigating Systems Cornerstone because it related to the availability of charging when it was required to mitigate the effects of a fire. This issue was determined to have very low safety significance because it involved a design deficiency confirmed not to result in a loss of function.

Inspection Report# : 2004003*(pdf)*

Barrier Integrity

Significance: G May 19, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Unit 1 Exceeding Licensed Thermal Power Limits
Green. A self revealing noncited violation of License Condition 2.C(1) of Facility Operating License NPF-76 was identified. License Condition 2.C(1) of Facility Operating License NPF-76 requires, in part, that South Texas Project Unit 1 operate at reactor core power levels not in excess of 3,853 megawatts thermal. It was determined that the reactor thermal output instruments provided non-conservative data to the reactor power calculation. This resulted in the 8-hour power average routinely being in excess of the licensed thermal power limit of 3,853 megawatts thermal between April 15 and May 19, 2005. This finding was a performance deficiency because the facility was not operated in accordance with the conditions of the South Texas Project license. The finding was more than minor because it was associated with the Barrier Integrity cornerstone and the protection of the fuel cladding barrier attribute. The finding was only of very low safety significance because the small increase in power above the licensed limit could be accommodated by the available margins in the safety analysis, and therefore did not significantly degrade plant safety. This issue involved problem identification and resolution crosscutting aspects associated with identifying and evaluating conditions adverse to quality.

Inspection Report# : 2005003*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Sep 02, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation

Failure to use a proper high radiation area radiation work permit.
A self-revealing noncited violation of Technical Specification 6.12.1 was reviewed because a worker entered a high radiation area without proper radiation work permit authorization. On July 28, 2004, an individual received an electronic personal dosimeter alarm after entering a high radiation area in Pipe Penetration Room 211. The radiation work permit used by the individual did not allow entry into such areas. The finding was entered into the licensee's corrective action program. The failure to have proper radiation work permit authorization prior to entering a high radiation area is a performance deficiency. This finding is greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affected the cornerstone objective, which is to ensure adequate protection of the worker health and safety from exposure to radiation. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. In addition, this finding had a crosscutting aspect associated with human performance.
Inspection Report# : 2004004*(pdf)*

Significance: G Sep 02, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform a radiological survey.
The inspector identified a noncited violation of 10 CFR 20.1501(a) because a radiological survey was not performed before work commenced. On April 4, 2004, the Unit 2 reactor head was lifted to a 15 - 20-inch hold point during a shift change. Once the hold point was reached, workers began staging stud hole cover equipment near the reactor head flange before a survey was taken to determine the radiological conditions. Immediate corrective actions were to suspend the work activity, move the workers to a low dose area, perform the survey, and inform the workers of the current radiological conditions. In addition, the finding was entered into the licensee's corrective action program. The failure to perform a radiological survey before commencing work activity is a performance deficiency. This finding is greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affected the cornerstone objective, which is to ensure adequate protection of the worker health and safety from exposure to radiation. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. In addition, this finding had cross-cutting aspects associated with human performance and problem identification and resolution.
Inspection Report# : 2004004*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: G Jun 23, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Refer an Employee to the Employee Assistance Program
Green. The inspector identified a noncited violation of 10 CFR parts 26.20 and 26.27 (b)(1), and South Texas Project Policy 502. Specifically, an individual whose fitness was in question, was allowed to return to duty prior to determining whether he was fit to safely and competently perform his job function. The licensee initiated a corrective action document to address this failure. This finding is greater than minor because it affects the Physical Protection cornerstone attribute associated with Access Authorization Systems. When this finding is processed through the interim physical protection significance determination process, it was determined to be a finding of very low significance because although there was no malevolent act and there were no greater than two similar findings in four quarters. This finding had cross-cutting aspects associated with human performance, because of the licensee's failure to follow their procedures.
Inspection Report# : 2005003*(pdf)*

Significance: N/A Nov 04, 2004
Identified By: NRC
Item Type: FIN Finding

Identification and Resolution of Problems

The licensee's processes to identify, prioritize, evaluate, and correct problems have improved during the last six to nine months. The processes were generally effective; thresholds for identifying issues were low and, in most cases, corrective actions were adequate to address conditions adverse to quality. However, the team noted that, due to the lack of aggressive problem identification and resolution in the past, two vital plant components experienced several failures. The components were the essential chillers and Class 1E inverters. The team also identified that the licensee undertook extensive corrective actions earlier in 2004 to address these failures. The team concluded that a positive safety-conscience work environment exists at the South Texas Project. The team determined that employees feel free to raise safety concerns to their supervision, the employee concerns program, and the NRC.

Inspection Report# : 2004011*(pdf)*

Last modified : August 24, 2005

South Texas 2
3Q/2005 Plant Inspection Findings

Initiating Events

Significance: G May 12, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedures Result in Relief Valve Openings During the Performance of Surveillance Tests
Green. The inspectors identified a noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, Item 8.b.(1).i, "Emergency Core Cooling Tests," for inadequate procedures that resulted in a letdown pressure relief valve opening during the performance of Plant Surveillance Procedure 0PSP03-RH-0009, "Residual Heat Removal System Valve Operability Test," Revision 5, on March 16, 2004, and again during performance of preventive maintenance procedure PM IC-2-89001568 on May 2, 2005. This finding was a performance deficiency because it had the actual impact of lifting a relief valve and therefore is associated with an increase in the likelihood of an initiating event. The finding was of greater than minor significance since it was associated with the cornerstone attribute of Initiating Events and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding was only of very low safety significance because, assuming worst case degradation, the lifted relief valve would not have resulted in exceeding the technical specification limit for identified reactor coolant system leakage. This issue also involved problem identification and resolution crosscutting aspects in the area of prioritization and evaluation. Additionally, the event had cross-cutting aspects in the area of human performance related to procedural adequacy and equipment knowledge.

Inspection Report# : 2005003*(pdf)*

Mitigating Systems

Significance: G Jul 14, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to ensure redundant safe shutdown systems located in the same fire area are free of fire damage
The team identified a noncited violation of Section III.G.2 of Appendix R to 10 CFR Part 50 for failure to ensure that redundant trains of safe shutdown systems in the same fire area were free of fire damage. For example, cables associated with the charging pumps suction valve from the Refueling Water Storage Tank, CV-MOV-0112C were not physically protected from fire damage. 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.2.

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. The team found that the manual operator actions implemented to mitigate the effects of fire damage were reasonable (as defined in Enclosure 2 of NRC Inspection Procedure 71111.05T, "Fire Protection (Triennial)"), and could be performed within the analyzed time limits. Therefore, in accordance with Enclosure 2 of NRC Inspection Procedure 71111.05T, the finding was determined to be of very low safety significance (green), and the significance determination process was not entered. The licensee plans to readdress manual actions following incorporation of manual actions into 10 CFR Part 50, Appendix R, Section III.G.2. (Section 1R05.2)
Inspection Report# : 2005006*(pdf)*

Significance: G Jun 24, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Reactor Coolant Leakage Detection System Calibration
Green. The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, associated with the licensee's failure to assure that applicable regulatory requirements and the design basis for the containment radiation gas monitors were correctly translated into the reactor containment building radiation monitor setpoints. This deficiency resulted in the radiation monitors being incapable of performing the design basis function to detect a one gallon per minute reactor coolant system leak within one hour in accordance with the licensee's commitment to Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems." This finding was a performance deficiency because the reactor containment building radiation monitor was not capable of performing the design basis function for an extended period of time. The finding was of greater than minor significance because the failure to alarm by the containment radiation monitor resulted in potential impact on reactor safety and adversely affected the reactor coolant leakage performance attribute of the Barrier Integrity cornerstone.

The finding was only of very low safety significance because other methods of reactor coolant system leak detection were available to the licensee and operators responded to the trending in the volume control tank level and then noted the rising trend recorded by the particulate radiation monitor. The failure of the radiation monitor to alarm within one hour did not contribute to an increase in core damage sequences when evaluated using the Significance Determination Process Phase 2 worksheets.

Inspection Report# : 2005003*(pdf)*

Significance: G Feb 28, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Essential Chiller 2C Failure to Start.
A self-revealing noncited violation of Technical Specification 3.7.14 was reviewed for Essential Chiller 22C being inoperable for longer than the allowed seven days without required actions being performed. The licensee reported the event on Licensee Event Report 0500499/2005-002. The failure to maintain Essential Chiller 22C operable in accordance with Technical Specification 3.7.14 is a performance deficiency. The finding was determined to be greater than minor because it affected the equipment performance attribute of the Reactor Safety Mitigating System Cornerstone. Additionally, the finding was associated with the operability, availability and reliability of the essential chiller. During a Phase 1 screening of the Significance Determination Process, the finding was determined to require a Phase 2 evaluation because it represented actual loss of safety function of a single train for greater than its Technical Specification Allowed Outage Time. After processing through Phase 2, the violation was determined to be of very low safety significance (Green) because the other two trains were operable
Inspection Report# : 2005002*(pdf)*

Significance: G Jan 04, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Initiate a Condition Report When A Degrading Trend was Identified.
A self-revealing noncited violation of 10 CFR Part50, Appendix B, Criterion XVI was reviewed for several failures of the licensee's problem identification and resolution program to identify and evaluate, and promptly correct a degraded bearing condition and lube water flow problem on Essential Cooling Water Pump 1B. The licensee identified abnormal essential cooling water pump lube water flow conditions and suspected pump bearing damage, conditions adverse to quality, but the licensee's corrective measures were not prompt to evaluate the impact on continued operation. In some cases the licensee did not initiate a condition report. The failure to document and evaluate adverse conditions in the Corrective Action Program is a performance deficiency because the licensee is expected to follow quality related procedures. This issue was greater than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone. The finding had very low safety significance (Green) because the affected equipment remained functional. This issue involved problem identification and resolution crosscutting aspects associated with identifying and evaluating conditions adverse to quality.

Inspection Report# : 2005002*(pdf)*

Significance: G Nov 04, 2004
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Maintenance Procedure for the Essential Chiller's Oil Pump
A self-revealing, noncited violation of 10CFR 50, Appendix B, Criterion V was documented due to an inadequate maintenance procedure that resulted in chiller operation with a misaligned oil pump. The misalignment caused unplanned chiller outages, which rendered it inoperable. The chillers provide water for temperature control of safe shutdown equipment rooms. This finding included cross-cutting aspects for prior missed opportunities to identify the inadequate procedure. Based on the results of a Significance Determination Process (SDP) using Manual Chapter (MC) 0609, Appendix A1, Phase 1 work sheet, this finding was determined to have very low safety significance. The finding was not a design or qualification deficiency of safety related equipment, did not result in a loss of a safety function, did not result in a loss of a safety function of a single train for greater than its allowed Technical Specification outage time, and screened out for external events. The failure to have an adequate maintenance procedure for the essential chiller's oil pump is a violation of 10 CFR 50, Appendix B, Criterion V.
Inspection Report# : 2004011*(pdf)*

Significance: G Nov 04, 2004
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Two Failures to take Timely Corrective Action to REplace Defective Relays
The licensee did not promptly replace Potter & Brumfield relays with known manufacturing flaws that impacted both single stack and double stack relays manufactured before 1990. After being alerted to a manufacturing flaw through 10 CFR Part 21 reports and an information notice and after a double stack relay failed because of this manufacturing flaw, the licensee failed to promptly replace the single coil stack Potter & Brumfield relays installed at the facility. In 2004, a single coil stack relay failed, which again affected the operability of an essential chiller. The licensee then decided to replace all the essential chiller normally energized Potter & Brumfield relays manufactured before 1990. The licensee did not promptly replace Potter & Brumfield relays, which had exceeded their service life. During a repair in 2003, the licensee

identified that all of the essential chiller 22R Potter & Brumfield relays had exceeded their service life. While the licensee planned to replace outdated relays, their corrective actions were not prompt and in 2004, another chiller's 22R relay failed, which again affected the operation of an essential chiller. Based on the results of a Significance Determination Process (SDP) using Manual Chapter (MC) 0609, Appendix A1, Phase 1 work sheet, this finding was determined to have very low safety significance. The finding was not a design or qualification deficiency of safety related equipment, did not result in a loss of a safety function, did not result in a loss of a safety function of a single train for greater than its allowed Technical Specification outage time, and screened out for external events. Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, requires that conditions adverse to quality causes be promptly corrected. The licensee failed to take timely corrective actions to replace the defective Potter and Brumfield relays and 22R relays.
Inspection Report# : 2004011*(pdf)*

Barrier Integrity

Significance: G May 19, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Unit 1 Exceeding Licensed Thermal Power Limits
Green. A self revealing noncited violation of License Condition 2.C(1) of Facility Operating License NPF-76 was identified. License Condition 2.C(1) of Facility Operating License NPF-76 requires, in part, that South Texas Project Unit 1 operate at reactor core power levels not in excess of 3,853 megawatts thermal. It was determined that the reactor thermal output instruments provided non-conservative data to the reactor power calculation. This resulted in the 8-hour power average routinely being in excess of the licensed thermal power limit of 3,853 megawatts thermal between April 15 and May 19, 2005. This finding was a performance deficiency because the facility was not operated in accordance with the conditions of the South Texas Project license. The finding was more than minor because it was associated with the Barrier Integrity cornerstone and the protection of the fuel cladding barrier attribute. The finding was only of very low safety significance because the small increase in power above the licensed limit could be accommodated by the available margins in the safety analysis, and therefore did not significantly degrade plant safety. This issue involved problem identification and resolution crosscutting aspects associated with identifying and evaluating conditions adverse to quality.

Inspection Report# : 2005003*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: G Jun 23, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Refer an Employee to the Employee Assistance Program

Green. The inspector identified a noncited violation of 10 CFR parts 26.20 and 26.27 (b)(1), and South Texas Project Policy 502. Specifically, an individual whose fitness was in question, was allowed to return to duty prior to determining whether he was fit to safely and competently perform his job function. The licensee initiated a corrective action document to address this failure. This finding is greater than minor because it affects the Physical Protection cornerstone attribute associated with Access Authorization Systems. When this finding is processed through the interim physical protection significance determination process, it was determined to be a finding of very low significance because although there was no malevolent act and there were no greater than two similar findings in four quarters. This finding had cross-cutting aspects associated with human performance, because of the licensee's failure to follow their procedures.
Inspection Report# : 2005003*(pdf)*

Significance: N/A Nov 04, 2004
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The licensee's processes to identify, prioritize, evaluate, and correct problems have improved during the last six to nine months. The processes were generally effective; thresholds for identifying issues were low and, in most cases, corrective actions were adequate to address conditions adverse to quality. However, the team noted that, due to the lack of aggressive problem identification and resolution in the past, two vital plant components experienced several failures. The components were the essential chillers and Class 1E inverters. The team also identified that the licensee undertook extensive corrective actions earlier in 2004 to address these failures. The team concluded that a positive safety-conscience work environment exists at the South Texas Project. The team determined that employees feel free to raise safety concerns to their supervision, the employee concerns program, and the NRC.

Inspection Report# : 2004011*(pdf)*

Last modified : November 30, 2005

South Texas 2
4Q/2005 Plant Inspection Findings

Initiating Events

Significance: G May 12, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedures Result in Relief Valve Openings During the Performance of Surveillance Tests
Green. The inspectors identified a noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, Item 8.b.(1).i, "Emergency Core Cooling Tests," for inadequate procedures that resulted in a letdown pressure relief valve opening during the performance of Plant Surveillance Procedure 0PSP03-RH-0009, "Residual Heat Removal System Valve Operability Test," Revision 5, on March 16, 2004, and again during performance of preventive maintenance procedure PM IC-2-89001568 on May 2, 2005. This finding was a performance deficiency because it had the actual impact of lifting a relief valve and therefore is associated with an increase in the likelihood of an initiating event. The finding was of greater than minor significance since it was associated with the cornerstone attribute of Initiating Events and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding was only of very low safety significance because, assuming worst case degradation, the lifted relief valve would not have resulted in exceeding the technical specification limit for identified reactor coolant system leakage. This issue also involved problem identification and resolution crosscutting aspects in the area of prioritization and evaluation. Additionally, the event had cross-cutting aspects in the area of human performance related to procedural adequacy and equipment knowledge.

Inspection Report# : 2005003*(pdf)*

Mitigating Systems

Significance: G Jul 14, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to ensure redundant safe shutdown systems located in the same fire area are free of fire damage
The team identified a noncited violation of Section III.G.2 of Appendix R to 10 CFR Part 50 for failure to ensure that redundant trains of safe shutdown systems in the same fire area were free of fire damage. For example, cables associated with the charging pumps suction valve from the Refueling Water Storage Tank, CV-MOV-0112C were not physically protected from fire damage. 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.2.

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. The team found that the manual operator actions implemented to mitigate the effects of fire damage were reasonable (as defined in Enclosure 2 of NRC Inspection Procedure 71111.05T, "Fire Protection (Triennial)"), and could be performed within the analyzed time limits. Therefore, in accordance with Enclosure 2 of NRC Inspection Procedure 71111.05T, the finding was determined to be of very low safety significance (green), and the significance determination process was not entered. The licensee plans to readdress manual actions following incorporation of manual actions into 10 CFR Part 50, Appendix R, Section III.G.2. (Section 1R05.2)
Inspection Report# : 2005006*(pdf)*

Significance: G Jun 24, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Reactor Coolant Leakage Detection System Calibration
Green. The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, associated with the licensee's failure to assure that applicable regulatory requirements and the design basis for the containment radiation gas monitors were correctly translated into the reactor containment building radiation monitor setpoints. This deficiency resulted in the radiation monitors being incapable of performing the design basis function to detect a one gallon per minute reactor coolant system leak within one hour in accordance with the licensee's commitment to Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems." This finding was a performance deficiency because the reactor containment building radiation monitor was not capable of performing the design basis function for an extended period of time. The finding was of greater than minor significance because the failure to alarm by the containment radiation monitor resulted in potential impact on reactor safety and adversely affected the reactor coolant leakage performance attribute of the Barrier Integrity cornerstone.

The finding was only of very low safety significance because other methods of reactor coolant system leak detection were available to the licensee and operators responded to the trending in the volume control tank level and then noted the rising trend recorded by the particulate radiation monitor. The failure of the radiation monitor to alarm within one hour did not contribute to an increase in core damage sequences when evaluated using the Significance Determination Process Phase 2 worksheets.

Inspection Report# : 2005003*(pdf)*

Significance: G Feb 28, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Essential Chiller 2C Failure to Start.
A self-revealing noncited violation of Technical Specification 3.7.14 was reviewed for Essential Chiller 22C being inoperable for longer than the allowed seven days without required actions being performed. The licensee reported the event on Licensee Event Report 0500499/2005-002. The failure to maintain Essential Chiller 22C operable in accordance with Technical Specification 3.7.14 is a performance deficiency. The finding was determined to be greater than minor because it affected the equipment performance attribute of the Reactor Safety Mitigating System Cornerstone. Additionally, the finding was associated with the operability, availability and reliability of the essential chiller. During a Phase 1 screening of the Significance Determination Process, the finding was determined to require a Phase 2 evaluation because it represented actual loss of safety function of a single train for greater than its Technical Specification Allowed Outage Time. After processing through Phase 2, the violation was determined to be of very low safety significance (Green) because the other two trains were operable
Inspection Report# : 2005002*(pdf)*

Significance: G Jan 04, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Initiate a Condition Report When A Degrading Trend was Identified.
A self-revealing noncited violation of 10 CFR Part50, Appendix B, Criterion XVI was reviewed for several failures of the licensee's problem identification and resolution program to identify and evaluate, and promptly correct a degraded bearing condition and lube water flow problem on Essential Cooling Water Pump 1B. The licensee identified abnormal essential cooling water pump lube water flow conditions and suspected pump bearing damage, conditions adverse to quality, but the licensee's corrective measures were not prompt to evaluate the impact on continued operation. In some cases the licensee did not initiate a condition report. The failure to document and evaluate adverse conditions in the Corrective Action Program is a performance deficiency because the licensee is expected to follow quality related procedures. This issue was greater than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone. The finding had very low safety significance (Green) because the affected equipment remained functional. This issue involved problem identification and resolution crosscutting aspects associated with identifying and evaluating conditions adverse to quality.

Inspection Report# : 2005002*(pdf)*

Barrier Integrity

Significance: G Dec 01, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inoperability of Essential Cooling Water Trains 2A and 2B
A green self-revealing noncited violation of Technical Specification 3.7.4 was identified which requires in part, that with only two of three required essential cooling water loops operable, three loops be restored to operable within 7 days or be in at least hot standby within 6 hours. Contrary to the above, Unit 2 continued to operate at 100% power while essential cooling water Train 2B was inoperable for an indeterminate time greater than 7 days. At the time of discovery, it was determined that Train 2B had already been inoperable due to cavitation induced pipe cracking for greater than the 7 day allowed outage time. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor because it affected the availability, reliability and capability objectives of the mitigating systems reactor safety cornerstone. Engineering analysis determined that if a seismic event had occurred, essential cooling water Train 2B train could have been rendered non-functional. The finding is only of very low safety significance because it did not involve the total loss of any safety function that contributed to the external event initiated core damage accident sequences as the minimum required two trains of essential cooling water were available for accident mitigation. As there were several missed opportunities to prevent the performance deficiency, this finding involved crosscutting aspects in the area of problem identification and resolution.
Inspection Report# : 2005005*(pdf)*

Significance: G Oct 12, 2005
Identified By: Self-Revealing

Item Type: NCV NonCited Violation
Improper Fuel Handling Improper Fuel Handling Improper Fuel Handling
A green self-revealing noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for a failure to adhere to Plant Operating Procedure 0POP08-FH-0003, "Fuel Transfer System," Revision 26. The failure to follow procedure resulted in fuel movers challenging the interlocks in the fuel transfer system. Specifically, a fuel mover attempted to lower a fuel assembly in the upender while the upender was still rising. The interlock prevented the upender from making contact with the fuel assembly. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor, because it involved the potential damage to fuel assemblies. This issue involves fuel assembly handling so it is not suitable for evaluation under the NRC Significance Determination Process. Therefore, this finding was reviewed by NRC management and determined to be of low safety significance because the event did not result in damage to a fuel assembly. As the performance deficiency involved a failure to follow procedure, this finding involved crosscutting aspects in the area of human performance.

Inspection Report# : 2005005*(pdf)*

Significance: G Oct 02, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadvertent Letdown Relief Valve Opening
A green self-revealing noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for a failure to adhere to Plant Operating Procedure 0POP02-CV-004, "Chemical and Volume Control System Subsystem," Revision 41. The failure to follow procedure resulted in reactor coolant system inventory being diverted to the pressurizer relief tank when a letdown pressure relief valve opened during a letdown orifice swap. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor because it had the actual impact of lifting a relief valve and is associated with the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding is only of very low safety significance because, assuming worst case degradation, the lifted relief valve would not have resulted in exceeding the Technical Specification limit for identified reactor coolant system leakage. As the performance deficiency involved a failure to follow procedure, this finding involved crosscutting aspects in the area of human performance.

Inspection Report# : 2005005*(pdf)*

Significance: G May 19, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Unit 1 Exceeding Licensed Thermal Power Limits
Green. A self revealing noncited violation of License Condition 2.C(1) of Facility Operating License NPF-76 was identified. License Condition 2.C(1) of Facility Operating License NPF-76 requires, in part, that South Texas Project Unit 1 operate at reactor core power levels not in excess of 3,853 megawatts thermal. It was determined that the reactor thermal output instruments provided non-conservative data to the reactor power calculation. This resulted in the 8-hour power average routinely being in excess of the licensed thermal power limit of 3,853 megawatts thermal between April 15 and May 19, 2005. This finding was a performance deficiency because the facility was not operated in accordance with the conditions of the South Texas Project license. The finding was more than minor because it was associated with the Barrier Integrity cornerstone and the protection of the fuel cladding barrier attribute. The finding was only of very low safety significance because the small increase in power above the licensed limit could be accommodated by the available margins in the safety analysis, and therefore did not significantly degrade plant safety. This issue involved problem identification and resolution crosscutting aspects associated with identifying and evaluating conditions adverse to quality.

Inspection Report# : 2005003*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 18, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to conspicuously post radiation areas.
The inspector identified two examples of a non-cited violation of 10 CFR 20.1902(a) for the failure to conspicuously post radiation areas.

Specifically, on March 16, 2005, the inspector observed a radiation area in Mechanical Auxiliary Building Room 49 of Unit 1 that was not conspicuously posted. After the inspector identified the first occurrence, the licensee performed a walkdown of the Mechanical Auxiliary Building and identified an additional inconspicuous posting in Room 79B of Unit 1. The finding was greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affects the Cornerstone objective. The failure to conspicuously post radiation areas could increase personnel dose and does not inform the worker of potential radiological hazards. The finding was determined to be of very low safety significance because it did not involve: (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. Additionally, this finding had cross-cutting aspects associated with human performance because personnel did not ensure the radiological postings remained conspicuous which directly contributed to the finding. These findings were placed into the licensee's corrective action program as Condition Reports 2005-3750 and 2005-3802
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 18, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Comply with Technical Specification 6.12.2.
The inspector reviewed a self revealing, non-cited violation of Technical Specification 6.12.2. A reactor operator failed to obtain an appropriate radiological briefing and a radiation protection technician failed to provide continuous surveillance in a high radiation area with dose rates greater than 1000 millirem per hour. Specifically, on March 17, 2005, a reactor operator entered the Unit 1 Reactor Containment Building Room 307 and received a dose rate alarm. The reactor operator did not obtain dose rates for work near the regenerative heat exchanger and the radiation protection technician accompanying the operator did not enter the room to provide continuous surveillance. General area dose rates in the room were as high as 3000 millirem per hour. The finding was greater than minor because it is associated with the Occupational Radiation Safety Program and Process attribute and affects the Cornerstone objective. The failure to obtain an appropriate radiological briefing and provide continuous surveillance in a high radiation area greater than 1000 millirem per hour could increase personnel dose. The finding was determined to be of very low safety significance because it did not involve: (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. Additionally, this finding had cross-cutting aspects associated with human performance because the reactor operator did not obtain an appropriate radiological briefing and the radiation protection technician did not provide continuous surveillance. This finding was placed into the licensee's corrective action program as Condition Report 2005-3779.

Inspection Report# : 2005002*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: G Jun 23, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Refer an Employee to the Employee Assistance Program
Green. The inspector identified a noncited violation of 10 CFR parts 26.20 and 26.27 (b)(1), and South Texas Project Policy 502. Specifically, an individual whose fitness was in question, was allowed to return to duty prior to determining whether he was fit to safely and competently perform his job function. The licensee initiated a corrective action document to address this failure. This finding is greater than minor because it affects the Physical Protection cornerstone attribute associated with Access Authorization Systems. When this finding is processed through the interim physical protection significance determination process, it was determined to be a finding of very low significance because although there was no malevolent act and there were no greater than two similar findings in four quarters. This finding had cross-cutting aspects associated with human performance, because of the licensee's failure to follow their procedures.
Inspection Report# : 2005003*(pdf)*

Last modified : March 03, 2006

South Texas 2
1Q/2006 Plant Inspection Findings

Initiating Events

Significance: G May 12, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedures Result in Relief Valve Openings During the Performance of Surveillance Tests
Green. The inspectors identified a noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, Item 8.b.(1).i, "Emergency Core Cooling Tests," for inadequate procedures that resulted in a letdown pressure relief valve opening during the performance of Plant Surveillance Procedure 0PSP03-RH-0009, "Residual Heat Removal System Valve Operability Test," Revision 5, on March 16, 2004, and again during performance of preventive maintenance procedure PM IC-2-89001568 on May 2, 2005. This finding was a performance deficiency because it had the actual impact of lifting a relief valve and therefore is associated with an increase in the likelihood of an initiating event. The finding was of greater than minor significance since it was associated with the cornerstone attribute of Initiating Events and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding was only of very low safety significance because, assuming worst case degradation, the lifted relief valve would not have resulted in exceeding the technical specification limit for identified reactor coolant system leakage. This issue also involved problem identification and resolution crosscutting aspects in the area of prioritization and evaluation. Additionally, the event had cross-cutting aspects in the area of human performance related to procedural adequacy and equipment knowledge.

Inspection Report# : 2005003*(pdf)*

Mitigating Systems

Significance: G Jul 14, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to ensure redundant safe shutdown systems located in the same fire area are free of fire damage
The team identified a noncited violation of Section III.G.2 of Appendix R to 10 CFR Part 50 for failure to ensure that redundant trains of safe shutdown systems in the same fire area were free of fire damage. For example, cables associated with the charging pumps suction valve from the Refueling Water Storage Tank, CV-MOV-0112C were not physically protected from fire damage. 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.2.

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. The team found that the manual operator actions implemented to mitigate the effects of fire damage were reasonable (as defined in Enclosure 2 of NRC Inspection Procedure 71111.05T, "Fire Protection (Triennial)"), and could be performed within the analyzed time limits. Therefore, in accordance with Enclosure 2 of NRC Inspection Procedure 71111.05T, the finding was determined to be of very low safety significance (green), and the significance determination process was not entered. The licensee plans to readdress manual actions following incorporation of manual actions into 10 CFR Part 50, Appendix R, Section III.G.2. (Section 1R05.2)
Inspection Report# : 2005006*(pdf)*

Significance: G Jun 24, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Reactor Coolant Leakage Detection System Calibration
Green. The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, associated with the licensee's failure to assure that applicable regulatory requirements and the design basis for the containment radiation gas monitors were correctly translated into the reactor containment building radiation monitor setpoints. This deficiency resulted in the radiation monitors being incapable of performing the design basis function to detect a one gallon per minute reactor coolant system leak within one hour in accordance with the licensee's commitment to Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems." This finding was a performance deficiency because the reactor containment building radiation monitor was not capable of performing the design basis function for an extended period of time. The finding was of greater than minor significance because the failure to alarm by the containment radiation monitor resulted in potential impact on reactor safety and adversely affected the reactor coolant leakage performance attribute of the Barrier Integrity cornerstone.

The finding was only of very low safety significance because other methods of reactor coolant system leak detection were available to the licensee and operators responded to the trending in the volume control tank level and then noted the rising trend recorded by the particulate radiation monitor. The failure of the radiation monitor to alarm within one hour did not contribute to an increase in core damage sequences when evaluated using the Significance Determination Process Phase 2 worksheets.

Inspection Report# : 2005003*(pdf)*

Barrier Integrity

Significance: G Dec 01, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inoperability of Essential Cooling Water Trains 2A and 2B
A green self-revealing noncited violation of Technical Specification 3.7.4 was identified which requires in part, that with only two of three required essential cooling water loops operable, three loops be restored to operable within 7 days or be in at least hot standby within 6 hours. Contrary to the above, Unit 2 continued to operate at 100% power while essential cooling water Train 2B was inoperable for an indeterminate time greater than 7 days. At the time of discovery, it was determined that Train 2B had already been inoperable due to cavitation induced pipe cracking for greater than the 7 day allowed outage time. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor because it affected the availability, reliability and capability objectives of the mitigating systems reactor safety cornerstone. Engineering analysis determined that if a seismic event had occurred, essential cooling water Train 2B train could have been rendered non-functional. The finding is only of very low safety significance because it did not involve the total loss of any safety function that contributed to the external event initiated core damage accident sequences as the minimum required two trains of essential cooling water were available for accident mitigation. As there were several missed opportunities to prevent the performance deficiency, this finding involved crosscutting aspects in the area of problem identification and resolution.
Inspection Report# : 2005005*(pdf)*

Significance: G Oct 12, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Fuel Handling Improper Fuel Handling Improper Fuel Handling
A green self-revealing noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for a failure to adhere to Plant Operating Procedure 0POP08-FH-0003, "Fuel Transfer System," Revision 26. The failure to follow procedure resulted in fuel movers challenging the interlocks in the fuel transfer system. Specifically, a fuel mover attempted to lower a fuel assembly in the upender while the upender was still rising. The interlock prevented the upender from making contact with the fuel assembly. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor, because it involved the potential damage to fuel assemblies. This issue involves fuel assembly handling so it is not suitable for evaluation under the NRC Significance Determination Process. Therefore, this finding was reviewed by NRC management and determined to be of low safety significance because the event did not result in damage to a fuel assembly. As the performance deficiency involved a failure to follow procedure, this finding involved crosscutting aspects in the area of human performance.

Inspection Report# : 2005005*(pdf)*

Significance: G Oct 02, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadvertent Letdown Relief Valve Opening
A green self-revealing noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for a failure to adhere to Plant Operating Procedure 0POP02-CV-004, "Chemical and Volume Control System Subsystem," Revision 41. The failure to follow procedure resulted in reactor coolant system inventory being diverted to the pressurizer relief tank when a letdown pressure relief valve opened during a letdown orifice swap. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor because it had the actual impact of lifting a relief valve and is associated with the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding is only of very low safety significance because, assuming worst case degradation, the lifted relief valve would not have resulted in exceeding the Technical Specification limit for identified reactor coolant system leakage. As the performance deficiency involved a failure to follow procedure, this finding involved crosscutting aspects in the area of human performance.

Inspection Report# : 2005005*(pdf)*

Significance: G May 19, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Unit 1 Exceeding Licensed Thermal Power Limits
Green. A self revealing noncited violation of License Condition 2.C(1) of Facility Operating License NPF-76 was identified. License Condition 2.C(1) of Facility Operating License NPF-76 requires, in part, that South Texas Project Unit 1 operate at reactor core power levels not in excess of 3,853 megawatts thermal. It was determined that the reactor thermal output instruments provided non-conservative data to the reactor power calculation. This resulted in the 8-hour power average routinely being in excess of the licensed thermal power limit of 3,853 megawatts thermal between April 15 and May 19, 2005. This finding was a performance deficiency because the facility was not operated in accordance with the conditions of the South Texas Project license. The finding was more than minor because it was associated with the Barrier Integrity cornerstone and the protection of the fuel cladding barrier attribute. The finding was only of very low safety significance because the small increase in power above the licensed limit could be accommodated by the available margins in the safety analysis, and therefore did not significantly degrade plant safety. This issue involved problem identification and resolution crosscutting aspects associated with identifying and evaluating conditions adverse to quality.

Inspection Report# : 2005003*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance: G Jan 26, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Confine Radioactive Material to A Radiologically Controlled Area
The team reviewed two examples of a self-revealing non-cited violation of Technical Specification 6.8.1, resulting from the licensee's failure to prevent radioactive material from being unconditionally released from a radiologically controlled area. The first example involved a radiation detection instrument with fixed radioactive contamination. The second example involved a contaminated lifting sling that was used to remove equipment and containers from the containment building. In both examples, the radioactive material was identified after it was removed from a radiologically controlled area but before it left the protected area. Corrective actions for the first example involved counseling the responsible individual. Corrective actions for the second example are still being evaluated. Both examples were entered into the licensee's corrective action program as Condition Reports 04-4266 and 05-14345. This finding is greater than minor because it was associated with a Public Radiation Safety cornerstone attribute (material release) and it affected the associated cornerstone objective in that the failure to control radioactive material decreases the licensee's assurance that the public will not receive unnecessary dose. Using the Public Radiation Safety Significance Determination Process, the team determined that the finding had very low safety significance because: (1) the finding was a radioactive material control finding, (2) it was not a transportation finding, (3) it did not result in public dose greater than 0.005 rem, and (4) radioactive material was not released from the protected area more than five times. Additionally, this finding had cross-cutting aspects associated with human performance. In the first example, a radiation protection technician failed to maintain direct supervision of the contaminated instrument. In the second example, the procedural guidance allowed the licensee to use only portable GM instruments on large items despite the loss of detection sensitivity.

Inspection Report# : 2006008*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: G Jun 23, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Refer an Employee to the Employee Assistance Program
Green. The inspector identified a noncited violation of 10 CFR parts 26.20 and 26.27 (b)(1), and South Texas Project Policy 502. Specifically, an individual whose fitness was in question, was allowed to return to duty prior to determining whether he was fit to safely and competently perform his job function. The licensee initiated a corrective action document to address this failure. This finding is greater than minor because it affects the Physical Protection cornerstone attribute associated with Access Authorization Systems. When this finding is processed through the interim physical protection significance determination process, it was determined to be a finding of very low significance because although there was no malevolent act and there were no greater than two similar findings in four quarters. This finding had cross-cutting aspects associated with human performance, because of the licensee's failure to follow their procedures.
Inspection Report# : 2005003*(pdf)*

Last modified : May 25, 2006

South Texas 2
2Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Apr 10, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadvertent Boration
A self-revealing noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for failure to adhere to Plant Operating Procedure 0POP02-BR-0001, " Boron Recycle System Operations," Revision 16. The failure to follow procedure resulted in a subsequent evolution inadvertently transferring borated water to the Unit 2 volume control tank, power decrease by 2.8 percent, and reactor coolant system temperature decrease of 6 degrees F. The licensee entered the performance deficiency into their corrective action program for resolution. The failure to follow procedure resulting in a subsequent evolution inadvertently transferring borated water to the Unit 2 volume control bank is a performance deviciency. This finding is greater than minor because it had the actual impact of affecting reactor reactivity and is associated with the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding is only of very low safety significance because the reactivity change was negative and the power reduction transient was minor. The cause of the finding is related to cross-cutting aspects in the area of human performance related to personnel and attention to detail.

Inspection Report# : 2006002*(pdf)*

Mitigating Systems

Significance: G Apr 10, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Motor-Operated Valve Operation Method
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix R, Section III.L.3, in that the method used to position motor-operated valves ("hot-sticking") following a fire in the control room was not independent of the fire area. Specifically, a portion of each valve control circuit was located in the control room. A fire affecting those circuits could result in mal-operation or over-thrusting of the valves. The failure to ensure that all circuits relied on for safe shutdown in response to a control room fire were free of the fire area was a performance deficiency. The issue was more than minor because it affected the reliability objective of the Equipment Performance attribute under the Mitigating Systems Cornerstone. Specifically, motor-operated valves that are relied upon to achieve post fire safe shutdown were less because parts of their control circuits could be damaged by the fire. A Senior Reactor Analyst evaluated the safety significance of this finding using Manual Chapter 0609, "Significance Determination Process," Appendix F, and determined that the finding constituted a low level of degradation for post fire safe shutdown equipment. Therefore, the finding was of very low safety significance.

Inspection Report# : 2006002*(pdf)*

Significance: G Apr 10, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Alternate Shutdown Analysis
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix R, Section III.L.1 because the thermohydraulic analysis was inconsistent with actions allowed in the South Texas Project licensing basis for a control room evacuation. Specifically, the analysis inappropriately credited certain manual actions from the control room that are required to be performed in the field. The failure to have an adequate written evaluation available for a control room fire scenario was a performance deficiency. This issue was more than minor because it affected the Mitigating Systems cornerstone attributes of protection from external factors (fire). The inadequate analysis over-estimated the amount of time available when accomplishing shutdown actions and, during walkdowns, the inspectors could not verify compliance with the requirements. A Senior Reactor Analyst evaluated the safety significance of this finding using Manual Chapter 0609, "Significance Determination Process," Appendix F, and determined that the finding constituted a low level of degradation for post fire safe shutdown analysis. Therefore, the finding was of very low safety significance.

Inspection Report# : 2006002*(pdf)*

Significance: G Dec 01, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inoperability of Essential Cooling Water Trains 2A and 2B
A green self-revealing noncited violation of Technical Specification 3.7.4 was identified which requires in part, that with only two of three required essential cooling water loops operable, three loops be restored to operable within 7 days or be in at least hot standby within 6 hours. Contrary to the above, Unit 2 continued to operate at 100% power while essential cooling water Train 2B was inoperable for an indeterminate time greater than 7 days. At the time of discovery, it was determined that Train 2B had already been inoperable due to cavitation induced pipe cracking for greater than the 7 day allowed outage time. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor because it affected the availability, reliability and capability objectives of the mitigating systems reactor safety cornerstone. Engineering analysis determined that if a seismic event had occurred, essential cooling water Train 2B train could have been rendered non-functional. The finding is only of very low safety significance because it did not involve the total loss of any safety function that contributed to the external event initiated core damage accident sequences as the minimum required two trains of essential cooling water were available for accident mitigation. As there were several missed opportunities to prevent the performance deficiency, this finding involved crosscutting aspects in the area of problem identification and resolution.
Inspection Report# : 2005005*(pdf)*

Significance: G Jul 14, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to ensure redundant safe shutdown systems located in the same fire area are free of fire damage
The team identified a noncited violation of Section III.G.2 of Appendix R to 10 CFR Part 50 for failure to ensure that redundant trains of safe shutdown systems in the same fire area were free of fire damage. For example, cables associated with the charging pumps suction valve from the Refueling Water Storage Tank, CV-MOV-0112C were not physically protected from fire damage. 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.2.

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. The team found that the manual operator actions implemented to mitigate the effects of fire damage were reasonable (as defined in Enclosure 2 of NRC Inspection Procedure 71111.05T, "Fire Protection (Triennial)"), and could be performed within the analyzed time limits. Therefore, in accordance with Enclosure 2 of NRC Inspection Procedure 71111.05T, the finding was determined to be of very low safety significance (green), and the significance determination process was not entered. The licensee plans to readdress manual actions following incorporation of manual actions into 10 CFR Part 50, Appendix R, Section III.G.2. (Section 1R05.2)
Inspection Report# : 2005006*(pdf)*

Barrier Integrity

Significance: G Oct 12, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Fuel Handling
A green self-revealing noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for a failure to adhere to Plant Operating Procedure 0POP08-FH-0003, "Fuel Transfer System," Revision 26. The failure to follow procedure resulted in fuel movers challenging the interlocks in the fuel transfer system. Specifically, a fuel mover attempted to lower a fuel assembly in the upender while the upender was still rising. The interlock prevented the upender from making contact with the fuel assembly. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor, because it involved the potential damage to fuel assemblies. This issue involves fuel assembly handling so it is not suitable for evaluation under the NRC Significance Determination Process. Therefore, this finding was reviewed by NRC management and determined to be of low safety significance because the event did not result in damage to a fuel assembly. As the performance deficiency involved a failure to follow procedure, this finding involved crosscutting aspects in the area of human performance.

Inspection Report# : 2005005*(pdf)*

Significance: G Oct 02, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadvertent Letdown Relief Valve Opening
A green self-revealing noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for a failure to adhere to Plant Operating Procedure 0POP02-CV-004, "Chemical and Volume Control System Subsystem," Revision 41. The failure to follow

procedure resulted in reactor coolant system inventory being diverted to the pressurizer relief tank when a letdown pressure relief valve opened during a letdown orifice swap. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor because it had the actual impact of lifting a relief valve and is associated with the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding is only of very low safety significance because, assuming worst case degradation, the lifted relief valve would not have resulted in exceeding the Technical Specification limit for identified reactor coolant system leakage. As the performance deficiency involved a failure to follow procedure, this finding involved crosscutting aspects in the area of human performance.

Inspection Report# : 2005005*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Feb 09, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Correctly Install Temporary Shielding
The inspector reviewed a self-revealing noncited violation of Technical Specification 6.8.1a because the licensee failed to correctly install temporary shielding. Specifically, on October 5, 2005, a crew of four workers installed 270 pounds of shielding per Shielding Request 2005-2-001 on the wrong reactor coolant system valve, RC-142, instead of the correct valve, RC-0017A. The error became evident later that morning when the same crew went to install six pounds of shielding on Valve RC-142 and discovered it already had 270 pounds of shielding on it. The corrective action was to place the proper amount of shielding on each valve. The failure to correctly install temporary shielding resulted in the work crew receiving an additional radiation dose of 87 millirem with one individual receiving as high as 27 millirem of additional radiation dose. The finding was greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of Program and Process and affected the cornerstone objective to ensure the adequate protection of a worker's health and safety from exposure to radiation because it resulted in additional exposure to radiation due to actions contrary to procedures. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because it was not an ALARA finding, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised. In addition, the finding had crosscutting aspects associated with human performance because the failure to follow shielding procedures and Shielding Request 2005-2-001 directly contributed to the finding.

Inspection Report# : 2006002*(pdf)*

Public Radiation Safety

Significance: G Jan 26, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Confine Radioactive Material to A Radiologically Controlled Area
The team reviewed two examples of a self-revealing non-cited violation of Technical Specification 6.8.1, resulting from the licensee's failure to prevent radioactive material from being unconditionally released from a radiologically controlled area. The first example involved a radiation detection instrument with fixed radioactive contamination. The second example involved a contaminated lifting sling that was used to remove equipment and containers from the containment building. In both examples, the radioactive material was identified after it was removed from a radiologically controlled area but before it left the protected area. Corrective actions for the first example involved counseling the responsible individual. Corrective actions for the second example are still being evaluated. Both examples were entered into the licensee's corrective action program as Condition Reports 04-4266 and 05-14345. This finding is greater than minor because it was associated with a Public Radiation Safety cornerstone attribute (material release) and it affected the associated cornerstone objective in that the failure to control radioactive material decreases the licensee's assurance that the public will not receive unnecessary dose. Using the Public Radiation Safety Significance Determination Process, the team determined that the finding had very low safety significance because: (1) the finding was a radioactive material control finding, (2) it was not a transportation finding, (3) it did not result in public dose greater than 0.005 rem, and (4) radioactive material was not released from the protected area more than five times. Additionally, this finding had cross-cutting aspects associated with human performance. In the first example, a radiation protection technician failed to maintain direct supervision of the contaminated instrument. In the second example, the procedural guidance allowed the licensee to use only portable GM instruments on large items despite the loss of detection sensitivity.

Inspection Report# : 2006008*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : August 25, 2006

South Texas 2
3Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Jul 07, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Main Generator Reactive Power Test Procedure
A self-revealing finding was identified for the failure to provide an adequate procedure, which resulted in an unexpected initiation of a "Generator U/F (Under-Frequency) Loss of Field Voltage" alarm. This alarm would have caused a generator/turbine/reactor trip in 30 seconds. Prompt action by the operators to terminate the test prevented the trip. The licensee performed a thorough root cause of the event to determine the short and long term corrective actions.

This finding was greater than minor because it was associated with the procedure quality attribute affecting the Initiating Event Cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. This finding was determined to be a finding of very low safety significance because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase and no transient actually occurred
Inspection Report# : 2006003*(pdf)*

Significance: G Oct 28, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadvertent Boration
A self-revealing noncited violation of Technical Specification 6.8.1.a was identified for failure to adhere to Plant Operating Procedure 0POP02-BR-0001, "Boron Recycle System Operations," Revision 16. The failure to follow procedure resulted in a subsequent evolution that inadvertently transferred borated water to the Unit 2 volume control tank, decreased power by 2.8 percent, and decreased reactor coolant system temperature by 6°F. The licensee entered the performance deficiency into their corrective action program for resolution.

The failure to follow procedure resulting in a subsequent evolution inadvertently transferring borated water to the Unit 2 volume control tank is a performance deficiency. This finding is greater than minor because it had the actual impact of affecting reactor reactivity and is associated with the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding is only of very low safety significance because the reactivity change was negative and the power reduction transient was minor. The cause of the finding is related to crosscutting aspects in the area of human performance related to failure to follow procedure and attention to detail.
Inspection Report# : 2006002*(pdf)*

Mitigating Systems

Significance: G Apr 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Motor-Operated Valve Operation Method
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix R, Section III.L.3, in that the method used to position motor-operated valves ("hot-sticking") following a fire in the control room was not independent of the fire area.

Specifically, a portion of each valve control circuit was located in the control room. A fire affecting those circuits could result in mal-operation or over-thrusting of the valves.

The failure to ensure that all circuits relied on for safe shutdown in response to a control room fire were free of the fire area was a performance deficiency. The issue was more than minor because it affected the reliability objective of the Equipment Performance attribute under the Mitigating Systems Cornerstone. Specifically, motor-operated valves that are relied upon to achieve post fire safe shutdown were less because parts of their control circuits could be damaged by the fire. A Senior Reactor Analyst evaluated the safety significance of this finding using Manual Chapter 0609, "Significance Determination Process," Appendix F, and determined that the finding constituted a low level of degradation for post fire safe shutdown equipment. Therefore, the finding was of very low safety significance.

Inspection Report# : 2006002*(pdf)*

Significance: G Apr 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Alternate Shutdown Analysis
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix R, Section III.L.1 because the thermohydraulic analysis was inconsistent with actions allowed in the South Texas Project licensing basis for a control room evacuation. Specifically, the analysis inappropriately credited certain manual actions from the control room that are required to be performed in the field.

The failure to have an adequate written evaluation available for a control room fire scenario was a performance deficiency. This issue was more than minor because it affected the Mitigating Systems cornerstone attributes of protection from external factors (fire). The inadequate analysis over-estimated the amount of time available when accomplishing shutdown actions and, during walkdowns, the inspectors could not verify compliance with the requirements. A Senior Reactor Analyst evaluated the safety significance of this finding using Manual Chapter 0609, "Significance Determination Process," Appendix F, and determined that the finding constituted a low level of degradation for post fire safe shutdown analysis. Therefore, the finding was of very low safety significance.

Inspection Report# : 2006002*(pdf)*

Significance: G Dec 01, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inoperability of Essential Cooling Water Trains 2A and 2B
A green self-revealing noncited violation of Technical Specification 3.7.4 was identified which requires in part, that with only two of three required essential cooling water loops operable, three loops be restored to operable within 7 days or be in at least hot standby within 6 hours. Contrary to the above, Unit 2 continued to operate at 100% power while essential cooling water Train 2B was inoperable for an indeterminate time greater than 7 days. At the time of discovery, it was determined that Train 2B had already been inoperable due to cavitation induced pipe cracking for greater than the 7 day allowed outage time. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor because it affected the availability, reliability and capability objectives of the mitigating systems reactor safety cornerstone. Engineering analysis determined that if a seismic event had occurred, essential cooling water Train 2B train could have been rendered non-functional. The finding is only of very low safety significance because it did not involve the total loss of any safety function that contributed to the external event initiated core damage accident sequences as the minimum required two trains of essential cooling water were available for accident mitigation. As there were several missed opportunities to prevent the performance deficiency, this finding involved crosscutting aspects in the area of problem identification and resolution.
Inspection Report# : 2005005*(pdf)*

Barrier Integrity

Significance: G Oct 12, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Fuel Handling
A green self-revealing noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for a failure to adhere to Plant Operating Procedure 0POP08-FH-0003, "Fuel Transfer System," Revision 26. The failure to follow procedure resulted in fuel movers challenging the interlocks in the fuel transfer system. Specifically, a fuel mover attempted to lower a fuel assembly in the upender while the upender was still rising. The interlock prevented the upender from making contact with the fuel assembly. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor, because it involved the potential damage to fuel assemblies. This issue involves fuel assembly handling so it is not suitable for evaluation under the NRC Significance Determination Process. Therefore, this finding was reviewed by NRC management and determined to be of low safety significance because the event did not result in damage to a fuel assembly. As the performance deficiency involved a failure to follow procedure, this finding involved crosscutting aspects in the area of human performance.

Inspection Report# : 2005005*(pdf)*

Significance: G Oct 02, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadvertent Letdown Relief Valve Opening
A green self-revealing noncited violation of Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, was identified for a failure to adhere to Plant Operating Procedure 0POP02-CV-004, "Chemical and Volume Control System Subsystem," Revision 41. The failure to follow procedure resulted in reactor coolant system inventory being diverted to the pressurizer relief tank when a letdown pressure relief valve opened during a letdown orifice swap. The licensee entered the performance deficiency into their corrective action program for resolution. This finding is greater than minor because it had the actual impact of lifting a relief valve and is associated with the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding is only of very low safety significance because, assuming worst case degradation, the lifted relief valve would not have resulted in exceeding the Technical Specification limit for identified reactor coolant system leakage. As the performance deficiency involved a failure to follow procedure, this finding involved crosscutting aspects in the area of human performance.

Inspection Report# : 2005005*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Oct 05, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Correctly Install Temporary Shielding
The inspector reviewed a self-revealing noncited violation of Technical Specification 6.8.1a because the licensee failed to correctly install temporary shielding. Specifically, on October 5, 2005, a crew of four workers installed 270 pounds of shielding per Shielding Request 2005-2-001 on the wrong reactor coolant system valve, RC-142, instead of the correct valve, RC-0017A. The error became evident later that morning when the same crew went to install six pounds of shielding on Valve RC-142 and discovered it already had 270 pounds of shielding on it. The corrective action was to place the proper amount of shielding on each valve. The failure to correctly install temporary shielding resulted in the work crew receiving an additional radiation dose of 87 millirem with one individual receiving as high as 27 millirem of additional radiation

dose.

The finding was greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of Program and Process and affected the cornerstone objective to ensure the adequate protection of a worker's health and safety from exposure to radiation because it resulted in additional exposure to radiation due to actions contrary to procedures. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because it was not an ALARA finding, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised. In addition, the finding had crosscutting aspects associated with human performance because the failure to follow shielding procedures and Shielding Request 2005-2-001 directly contributed to the finding.

Inspection Report# : 2006002*(pdf)*

Public Radiation Safety

Significance: G Jan 26, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Confine Radioactive Material to A Radiologically Controlled Area
The team reviewed two examples of a self-revealing non-cited violation of Technical Specification 6.8.1, resulting from the licensee's failure to prevent radioactive material from being unconditionally released from a radiologically controlled area. The first example involved a radiation detection instrument with fixed radioactive contamination. The second example involved a contaminated lifting sling that was used to remove equipment and containers from the containment building. In both examples, the radioactive material was identified after it was removed from a radiologically controlled area but before it left the protected area. Corrective actions for the first example involved counseling the responsible individual. Corrective actions for the second example are still being evaluated. Both examples were entered into the licensee's corrective action program as Condition Reports 04-4266 and 05-14345. This finding is greater than minor because it was associated with a Public Radiation Safety cornerstone attribute (material release) and it affected the associated cornerstone objective in that the failure to control radioactive material decreases the licensee's assurance that the public will not receive unnecessary dose. Using the Public Radiation Safety Significance Determination Process, the team determined that the finding had very low safety significance because: (1) the finding was a radioactive material control finding, (2) it was not a transportation finding, (3) it did not result in public dose greater than 0.005 rem, and (4) radioactive material was not released from the protected area more than five times. Additionally, this finding had cross-cutting aspects associated with human performance. In the first example, a radiation protection technician failed to maintain direct supervision of the contaminated instrument. In the second example, the procedural guidance allowed the licensee to use only portable GM instruments on large items despite the loss of detection sensitivity.

Inspection Report# : 2006008*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : December 21, 2006

South Texas 2
4Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Jul 07, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Main Generator Reactive Power Test Procedure
A self-revealing finding was identified for the failure to provide an adequate procedure, which resulted in an unexpected initiation of a "Generator U/F (Under-Frequency) Loss of Field Voltage" alarm. This alarm would have caused a generator/turbine/reactor trip in 30 seconds. Prompt action by the operators to terminate the test prevented the trip. The licensee performed a thorough root cause of the event to determine the short and long term corrective actions.

This finding was greater than minor because it was associated with the procedure quality attribute affecting the Initiating Event Cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. This finding was determined to be a finding of very low safety significance because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase and no transient actually occurred
Inspection Report# : 2006003 *(pdf)*

Mitigating Systems

Significance: G Apr 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Motor-Operated Valve Operation Method
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix R, Section III.L.3, in that the method used to position motor-operated valves ("hot-sticking") following a fire in the control room was not independent of the fire area. Specifically, a portion of each valve control circuit was located in the control room. A fire affecting those circuits could result in mal-operation or over-thrusting of the valves.

The failure to ensure that all circuits relied on for safe shutdown in response to a control room fire were free of the fire area was a performance deficiency. The issue was more than minor because it affected the reliability objective of the Equipment Performance attribute under the Mitigating Systems Cornerstone. Specifically, motor-operated valves that are relied upon to achieve post fire safe shutdown were less because parts of their control circuits could be damaged by the fire. A Senior Reactor Analyst evaluated the safety significance of this finding using Manual Chapter 0609, "Significance Determination Process," Appendix F, and determined that the finding constituted a low level of degradation for post fire safe shutdown equipment. Therefore, the finding was of very low safety significance.

Inspection Report# : 2006002 *(pdf)*

Significance: G Apr 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Alternate Shutdown Analysis
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix R, Section III.L.1 because the thermohydraulic analysis was inconsistent with actions allowed in the South Texas Project licensing basis for a control room evacuation.

Specifically, the analysis inappropriately credited certain manual actions from the control room that are required to be performed in the field.

The failure to have an adequate written evaluation available for a control room fire scenario was a performance deficiency. This issue was more than minor because it affected the Mitigating Systems cornerstone attributes of protection from external factors (fire). The inadequate analysis over-estimated the amount of time available when accomplishing shutdown actions and, during walkdowns, the inspectors could not verify compliance with the requirements. A Senior Reactor Analyst evaluated the safety significance of this finding using Manual Chapter 0609, "Significance Determination Process," Appendix F, and determined that the finding constituted a low level of degradation for post fire safe shutdown analysis. Therefore, the finding was of very low safety significance.

Inspection Report# : 2006002 *(pdf)*

Barrier Integrity

Significance: G Oct 12, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedural Guidance for Verifying Control Room Ventilation Doors are Secured
The inspectors identified three examples and the licensee identified one example of a noncited violation of Technical Specification 6.8.1.a for the failure to provide an adequate procedure to ensure that doors, which provide access through the control room envelope/heating, ventilation, and air conditioning system were properly closed and latched, and controlled and maintained. The licensee rolled up all the recent door failures into two condition reports, one to address the mechanical aspects and another to address the human performance aspects.

The inspectors determined that having an inadequate procedure for the control of doors that encompass the control room envelope system to be a performance deficiency. This finding is greater than minor because it affected the barrier integrity attribute of procedure quality under maintaining radiological barrier functionality of the control room and it affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the operational capability of the control room envelope heating, ventilation, and air conditioning boundary. Using the Phase 1 worksheets in Inspection Manual Chapter 0609, “Significance Determination Process,” the issue was determined to have very low safety significance because the finding only represented a degradation of the radiological barrier function for the control room. In addition, this finding had a crosscutting aspect with respect to problem identification and resolution in that the licensee did not fully evaluate and assess information from the corrective action program in the aggregate to identify programmatic and common cause problems as a result of having an inadequate procedure for the operation and maintenance of the control room envelope doors.

Inspection Report# : 2006004 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance: G Jan 26, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Confine Radioactive Material to A Radiologically Controlled Area
The team reviewed two examples of a self-revealing non-cited violation of Technical Specification 6.8.1, resulting from the licensee's failure to prevent radioactive material from being unconditionally released from a radiologically controlled area. The first example involved a radiation detection instrument with fixed radioactive contamination. The second example involved a contaminated lifting sling that was used to remove equipment and containers from the containment building. In both examples, the radioactive material was identified after it was removed from a radiologically controlled area but before it left the protected area. Corrective actions for the first example involved counseling the responsible individual. Corrective actions for the second example are still being evaluated. Both examples were entered into the licensee's corrective action program as Condition Reports 04-4266 and 05-14345. This finding is greater than minor because it was associated with a Public Radiation Safety cornerstone attribute (material release) and it affected the associated cornerstone objective in that the failure to control radioactive material decreases the licensee's assurance that the public will not receive unnecessary dose. Using the Public Radiation Safety Significance Determination Process, the team determined that the finding had very low safety significance because: (1) the finding was a radioactive material control finding, (2) it was not a transportation finding, (3) it did not result in public dose greater than 0.005 rem, and (4) radioactive material was not released from the protected area more than five times. Additionally, this finding had cross-cutting aspects associated with human performance. In the first example, a radiation protection technician failed to maintain direct supervision of the contaminated instrument. In the second example, the procedural guidance allowed the licensee to use only portable GM instruments on large items despite the loss of detection sensitivity.

Inspection Report# : 2006008 *(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: N/A Oct 05, 2006
Identified By: NRC
Item Type: FIN Finding
Corrective Action Program Assessment
The inspectors reviewed approximately 253 condition reports, 23 work orders, associated root and apparent cause evaluations, and other supporting documentation to assess problem identification and resolution activities. Overall, the team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee's effectiveness at problem identification was evidenced by the relatively few deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee, during the review period. The licensee effectively used risk in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementing corrective actions. Corrective actions, when specified, were generally implemented in a timely manner. Licensee audits and assessments were found to be effective and highlighted a similar concern in the root cause area.

Operating experience usage was also found to be effective. Self assessment results adequately identified problems and proposed corrective actions to address these problems. On the basis of interviews conducted during this inspection, the team found that in general workers at the site felt free to input safety findings into the corrective action program, raise nuclear safety concerns to their supervision, bring concerns to the employee concerns program, and bring concerns to the NRC. During interviews, licensee personnel generally expressed confidence that nuclear safety issues that were entered into the corrective action program would be appropriately addressed. However, NRC's final assessment of the safety conscious work environment at is still under NRC review, pending final resolution of 10 CFR 2.206 petition.

During interviews, licensee personnel expressed confidence that nuclear safety issues that were entered into the corrective action program would be appropriately addressed. The inspectors found that the licensee's employee concerns program appropriately identified and adequately addressed nuclear safety concerns. The team concluded that overall a positive safety-conscious work environment existed at the South Texas Project Electric Generating Station.

Inspection Report# : 2006009 *(pdf)*

Last modified : March 01, 2007

South Texas 2
1Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Jul 07, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Main Generator Reactive Power Test Procedure
A self-revealing finding was identified for the failure to provide an adequate procedure, which resulted in an unexpected initiation of a “Generator U/F (Under-Frequency) Loss of Field Voltage” alarm. This alarm would have caused a generator/turbine/reactor trip in 30 seconds. Prompt action by the operators to terminate the test prevented the trip. The licensee performed a thorough root cause of the event to determine the short and long term corrective actions.

This finding was greater than minor because it was associated with the procedure quality attribute affecting the Initiating Event Cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. This finding was determined to be a finding of very low safety significance because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase and no transient actually occurred
Inspection Report# : 2006003 *(pdf)*

Mitigating Systems

Significance: G Apr 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Motor-Operated Valve Operation Method
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix R, Section III.L.3, in that the method used to position motor-operated valves (“hot-sticking”) following a fire in the control room was not independent of the fire area. Specifically, a portion of each valve control circuit was located in the control room. A fire affecting those circuits could result in mal-operation or over-thrusting of the valves.

The failure to ensure that all circuits relied on for safe shutdown in response to a control room fire were free of the fire area was a performance deficiency. The issue was more than minor because it affected the reliability objective of the Equipment Performance attribute under the Mitigating Systems Cornerstone. Specifically, motor-operated valves that are relied upon to achieve post fire safe shutdown were less because parts of their control circuits could be damaged by the fire. A Senior Reactor Analyst evaluated the safety significance of this finding using Manual Chapter 0609, "Significance Determination Process," Appendix F, and determined that the finding constituted a low level of degradation for post fire safe shutdown equipment. Therefore, the finding was of very low safety significance.

Inspection Report# : 2006002 *(pdf)*

Significance: G Apr 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Alternate Shutdown Analysis
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix R, Section III.L.1 because the thermohydraulic analysis was inconsistent with actions allowed in the South Texas Project licensing basis for a control room evacuation. Specifically, the analysis inappropriately credited certain manual actions from the control room that are required to be

performed in the field.

The failure to have an adequate written evaluation available for a control room fire scenario was a performance deficiency. This issue was more than minor because it affected the Mitigating Systems cornerstone attributes of protection from external factors (fire). The inadequate analysis over-estimated the amount of time available when accomplishing shutdown actions and, during walkdowns, the inspectors could not verify compliance with the requirements. A Senior Reactor Analyst evaluated the safety significance of this finding using Manual Chapter 0609, "Significance Determination Process," Appendix F, and determined that the finding constituted a low level of degradation for post fire safe shutdown analysis. Therefore, the finding was of very low safety significance.

Inspection Report# : 2006002 *(pdf)*

Barrier Integrity

Significance:  Oct 12, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedural Guidance for Verifying Control Room Ventilation Doors are Secured
The inspectors identified three examples and the licensee identified one example of a noncited violation of Technical Specification 6.8.1.a for the failure to provide an adequate procedure to ensure that doors, which provide access through the control room envelope/heating, ventilation, and air conditioning system were properly closed and latched, and controlled and maintained. The licensee rolled up all the recent door failures into two condition reports, one to address the mechanical aspects and another to address the human performance aspects.

The inspectors determined that having an inadequate procedure for the control of doors that encompass the control room envelope system to be a performance deficiency. This finding is greater than minor because it affected the barrier integrity attribute of procedure quality under maintaining radiological barrier functionality of the control room and it affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the operational capability of the control room envelope heating, ventilation, and air conditioning boundary. Using the Phase 1 worksheets in Inspection Manual Chapter 0609, “Significance Determination Process,” the issue was determined to have very low safety significance because the finding only represented a degradation of the radiological barrier function for the control room. In addition, this finding had a crosscutting aspect with respect to problem identification and resolution in that the licensee did not fully evaluate and assess information from the corrective action program in the aggregate to identify programmatic and common cause problems as a result of having an inadequate procedure for the operation and maintenance of the control room envelope doors.

Inspection Report# : 2006004 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: N/A Oct 05, 2006
Identified By: NRC
Item Type: FIN Finding
Corrective Action Program Assessment
The inspectors reviewed approximately 253 condition reports, 23 work orders, associated root and apparent cause evaluations, and other supporting documentation to assess problem identification and resolution activities. Overall, the team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee's effectiveness at problem identification was evidenced by the relatively few deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee, during the review period. The licensee effectively used risk in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementing corrective actions. Corrective actions, when specified, were generally implemented in a timely manner. Licensee audits and assessments were found to be effective and highlighted a similar concern in the root cause area.

Operating experience usage was also found to be effective. Self assessment results adequately identified problems and proposed corrective actions to address these problems. On the basis of interviews conducted during this inspection, the team found that in general workers at the site felt free to input safety findings into the corrective action program, raise nuclear safety concerns to their supervision, bring concerns to the employee concerns program, and bring concerns to the NRC. During interviews, licensee personnel generally expressed confidence that nuclear safety issues that were entered into the corrective action program would be appropriately addressed. However, NRC’s final assessment of the safety conscious work environment at is still under NRC review, pending final resolution of 10 CFR 2.206 petition.

During interviews, licensee personnel expressed confidence that nuclear safety issues that were entered into the corrective action program would be appropriately addressed. The inspectors found that the licensee's employee concerns program appropriately identified and adequately addressed nuclear safety concerns. The team concluded that overall a positive safety-conscious work environment existed at the South Texas Project Electric Generating Station.

Inspection Report# : 2006009 *(pdf)*

Last modified : June 01, 2007

South Texas 2
2Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Apr 06, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Human Performance Error Hanging an Equipment Clearance Order
The inspectors reviewed a self-revealing finding for a failure to follow procedure, which resulted in losing power to Load Center 2G2 and subsequently the running stator cooling water pump, which would have resulted in a main turbine/reactor trip had the standby stator cooling water pump not auto started. The plant operator opened Breaker 2G2/3B, the supply breaker to Load Center 2G2, instead of Breaker 2G2/3C, the power supply to the condenser air removal system Pump 23. Just before opening the breaker, the plant operator took his eyes off the breaker to bend down and read the breaker racking procedure and the equipment clearance order. Upon standing up, the plant operator did not ensure that he was manipulating the correct breaker and inserted the breaker racking tool into the wrong breaker.

This finding was more than minor because it was associated with the initiating events cornerstone attribute of human performance and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors evaluated the finding using the Significance Determination Process Phase 1 screening and determined it to be of very low safety significance (Green) because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase. This issue also had human performance crosscutting aspects associated with work practices in that personnel involved failed to follow the procedure due to inadequate human error prevention techniques, such as self and peer checking.

Inspection Report# : 2007002 *(pdf)*

Significance: G Jul 07, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Main Generator Reactive Power Test Procedure
A self-revealing finding was identified for the failure to provide an adequate procedure, which resulted in an unexpected initiation of a “Generator U/F (Under-Frequency) Loss of Field Voltage” alarm. This alarm would have caused a generator/turbine/reactor trip in 30 seconds. Prompt action by the operators to terminate the test prevented the trip. The licensee performed a thorough root cause of the event to determine the short and long term corrective actions.

This finding was greater than minor because it was associated with the procedure quality attribute affecting the Initiating Event Cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. This finding was determined to be a finding of very low safety significance because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase and no transient actually occurred
Inspection Report# : 2006003 *(pdf)*

Mitigating Systems

Significance: G Apr 06, 2007

Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Maintenance Results in Damage to a HHSI Pump Resulting in NOED
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.a for failure to follow Procedures STI 32013741, "Conduct of Maintenance," dated May 15, 2006, and 0PMP04-SI-0002, "High Head Safety Injection Pump Maintenance." On November 27, 2006, the Unit 2 high head safety injection Pump 2A was declared inoperable in order to replace the mechanical seal. The craftsmen encountered several clearance (tolerance) problems trying to remove various parts of the pump. Instead of recognizing the unexpected conditions as adverse and stopping work, the craftsmen and their supervisor continued to troubleshoot the pump outside of the prescribed procedural steps. As a result, the pump was damaged and the licensee requested, which the NRC granted, enforcement discretion to prevent a required Technical Specification shutdown. This event demonstrated improper maintenance practices as outlined in the conduct of maintenance procedure, specifically, ". . . . If at any time a conflict arises, unexpected conditions develop, the job instructions are unclear, or the work cannot be performed as planned, stop the job."

The inspectors determined that the violation was more than minor because it was associated with the mitigating systems cornerstone attribute of equipment and human performance, and it affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Furthermore, the performance deficiency would have resulted in a Technical specification shutdown if not for the Notice of Enforcement Discretion. The inspectors evaluated the violation using Inspection Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," Phase 1 screening, and determined that it resulted in Phase 2 analysis due to a single train inoperable for longer than its TS allowed outage time. The Phase 2 analysis screened as Green. This finding also had human performance crosscutting aspects associated with work practices in that the licensee did not clearly define and effectively communicate expectations regarding procedural compliance and personnel following procedures.

Inspection Report# : 2007002 *(pdf)*

Barrier Integrity

Significance:  Oct 12, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedural Guidance for Verifying Control Room Ventilation Doors are Secured
The inspectors identified three examples and the licensee identified one example of a noncited violation of Technical Specification 6.8.1.a for the failure to provide an adequate procedure to ensure that doors, which provide access through the control room envelope/heating, ventilation, and air conditioning system were properly closed and latched, and controlled and maintained. The licensee rolled up all the recent door failures into two condition reports, one to address the mechanical aspects and another to address the human performance aspects.

The inspectors determined that having an inadequate procedure for the control of doors that encompass the control room envelope system to be a performance deficiency. This finding is greater than minor because it affected the barrier integrity attribute of procedure quality under maintaining radiological barrier functionality of the control room and it affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the operational capability of the control room envelope heating, ventilation, and air conditioning boundary. Using the Phase 1 worksheets in Inspection Manual Chapter 0609, "Significance Determination Process," the issue was determined to have very low safety significance because the finding only represented a degradation of the radiological barrier function for the control room. In addition, this finding had a crosscutting aspect with respect to problem identification and resolution in that the licensee did not fully evaluate and assess information from the corrective action program in the aggregate to identify programmatic and common cause problems as a result of having an inadequate procedure for the operation and maintenance of the control room envelope doors.

Inspection Report# : 2006004 *(pdf)*

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 Oct 05, 2006
Identified By: NRC
Item Type: FIN Finding
Corrective Action Program Assessment
The inspectors reviewed approximately 253 condition reports, 23 work orders, associated root and apparent cause evaluations, and other supporting documentation to assess problem identification and resolution activities. Overall, the team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee's effectiveness at problem identification was evidenced by the relatively few deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee, during the review period. The licensee effectively used risk in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementing corrective actions. Corrective actions, when specified, were generally implemented in a timely manner. Licensee audits and assessments were found to be effective and highlighted a similar concern in the root cause area.

Operating experience usage was also found to be effective. Self assessment results adequately identified problems and proposed corrective actions to address these problems. On the basis of interviews conducted during this inspection, the team found that in general workers at the site felt free to input safety findings into the corrective action program, raise nuclear safety concerns to their supervision, bring concerns to the employee concerns program, and bring concerns to the NRC. During interviews, licensee personnel generally expressed confidence that nuclear safety issues that were entered into the corrective action program would be appropriately addressed. However, NRC’s final assessment of the safety conscious work environment at is still under NRC review, pending final resolution of 10 CFR 2.206 petition.

During interviews, licensee personnel expressed confidence that nuclear safety issues that were entered into the corrective action program would be appropriately addressed. The inspectors found that the licensee's employee concerns program appropriately identified and adequately addressed nuclear safety concerns. The team concluded that overall a positive safety-conscious work environment existed at the South Texas Project Electric Generating Station.

Inspection Report# : 2006009 *(pdf)*

Last modified : August 24, 2007

South Texas 2
3Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Jul 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Turbine Load Rate Manipulation Results in Unexpected Power Reduction
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.a for the failure to follow Procedure 0POP03-ZG-0006, "Plant Shutdown from 100% to Hot Standby," Revision 28. As part of the shutdown, operations personnel are directed to reduce turbine load at the desired ramp rate by adjusting the load rate thumbwheel. However, during the evolution the thumbwheel was inadvertently moved in the wrong direction, thereby causing the turbine load rate to change from 0.25 percent/min to 200 percent/min. This resulted in a transient on the plant causing reactor power to lower by about 6 percent rated thermal power and average coolant temperature to rise by about 2.3 °F.

This finding was more than minor because it was associated with the Initiating Events Cornerstone attribute of human performance and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors evaluated the violation using Inspection Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," Phase 1 screening, and determined that it was of very low safety significance because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase. This issue also had human performance crosscutting aspects, in the area of decision-making, because the licensee had not conducted effectiveness reviews of safety-significant decisions to verify the validity of the underlying assumptions, identify possible unintended consequences, and determine how to improve future decisions (H.1(b)). The licensee had previously evaluated most turbine control manipulations as 'skill of the craft' and did not identify the potential challenge to reactivity management. This was reflected in the manner in which the turbine was operated, always in the 'go' setting, and that the 200 percent/min position had not been previously eliminated as it served no operational function. This directly contributed to the resultant plant transient.
Inspection Report# : 2007003 *(pdf)*

Significance: G Apr 06, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Human Performance Error Hanging an Equipment Clearance Order
The inspectors reviewed a self-revealing finding for a failure to follow procedure, which resulted in losing power to Load Center 2G2 and subsequently the running stator cooling water pump, which would have resulted in a main turbine/reactor trip had the standby stator cooling water pump not auto started. The plant operator opened Breaker 2G2/3B, the supply breaker to Load Center 2G2, instead of Breaker 2G2/3C, the power supply to the condenser air removal system Pump 23. Just before opening the breaker, the plant operator took his eyes off the breaker to bend down and read the breaker racking procedure and the equipment clearance order. Upon standing up, the plant operator did not ensure that he was manipulating the correct breaker and inserted the breaker racking tool into the wrong breaker.

This finding was more than minor because it was associated with the initiating events cornerstone attribute of human performance and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors evaluated the finding using the Significance Determination Process Phase 1 screening and determined it to be of very low safety significance (Green) because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase. This issue also had human performance crosscutting aspects associated with work practices in that personnel involved failed to follow the procedure due to inadequate human error prevention

techniques, such as self and peer checking.

Inspection Report# : 2007002 *(pdf)*

Mitigating Systems

Significance: G Apr 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Maintenance Results in Damage to a HHSI Pump Resulting in NOED
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.a for failure to follow Procedures STI 32013741, "Conduct of Maintenance," dated May 15, 2006, and 0PMP04-SI-0002, "High Head Safety Injection Pump Maintenance." On November 27, 2006, the Unit 2 high head safety injection Pump 2A was declared inoperable in order to replace the mechanical seal. The craftsmen encountered several clearance (tolerance) problems trying to remove various parts of the pump. Instead of recognizing the unexpected conditions as adverse and stopping work, the craftsmen and their supervisor continued to troubleshoot the pump outside of the prescribed procedural steps. As a result, the pump was damaged and the licensee requested, which the NRC granted, enforcement discretion to prevent a required Technical Specification shutdown. This event demonstrated improper maintenance practices as outlined in the conduct of maintenance procedure, specifically, ". . . . If at any time a conflict arises, unexpected conditions develop, the job instructions are unclear, or the work cannot be performed as planned, stop the job."

The inspectors determined that the violation was more than minor because it was associated with the mitigating systems cornerstone attribute of equipment and human performance, and it affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Furthermore, the performance deficiency would have resulted in a Technical specification shutdown if not for the Notice of Enforcement Discretion. The inspectors evaluated the violation using Inspection Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," Phase 1 screening, and determined that it resulted in Phase 2 analysis due to a single train inoperable for longer than its TS allowed outage time. The Phase 2 analysis screened as Green. This finding also had human performance crosscutting aspects associated with work practices in that the licensee did not clearly define and effectively communicate expectations regarding procedural compliance and personnel following procedures.

Inspection Report# : 2007002 *(pdf)*

Barrier Integrity

Significance: G Oct 12, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedural Guidance for Verifying Control Room Ventilation Doors are Secured
The inspectors identified three examples and the licensee identified one example of a noncited violation of Technical Specification 6.8.1.a for the failure to provide an adequate procedure to ensure that doors, which provide access through the control room envelope/heating, ventilation, and air conditioning system were properly closed and latched, and controlled and maintained. The licensee rolled up all the recent door failures into two condition reports, one to address the mechanical aspects and another to address the human performance aspects.

The inspectors determined that having an inadequate procedure for the control of doors that encompass the control room envelope system to be a performance deficiency. This finding is greater than minor because it affected the barrier integrity attribute of procedure quality under maintaining radiological barrier functionality of the control room and it affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the

public from radionuclide releases caused by accidents or events by maintaining the operational capability of the control room envelope heating, ventilation, and air conditioning boundary. Using the Phase 1 worksheets in Inspection Manual Chapter 0609, “Significance Determination Process,” the issue was determined to have very low safety significance because the finding only represented a degradation of the radiological barrier function for the control room. In addition, this finding had a crosscutting aspect with respect to problem identification and resolution in that the licensee did not fully evaluate and assess information from the corrective action program in the aggregate to identify programmatic and common cause problems as a result of having an inadequate procedure for the operation and maintenance of the control room envelope doors.

Inspection Report# : 2006004 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jul 06, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Two Examples of a Failure to Conspicuously Post and Barricade a High Radiation Area
The inspector identified two examples of a noncited violation of Technical Specification 6.12.1 because the licensee failed to conspicuously post and barricade two separate high radiation areas. On April 19, 2007, during a tour of the reactor containment building, the inspector observed the entryways to the steam generator and pressurizer cubicles were not conspicuously posted or barricaded. The licensee’s corrective action was to post and barricade these two areas.

This finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process, and affected the cornerstone objective to ensure the adequate protection of a worker’s health and safety from exposure to radiation because it could have resulted in workers being exposed to higher radiation levels. When processed through 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. In addition, this finding had a human performance crosscutting aspect, associated with work practices, because the licensee failed to define and effectively communicate expectations about procedural compliance (H.4(b)). The licensee’s common cause report, Condition Report 07-7030, concluded that the station had not taken the appropriate steps to ensure that workers' respect for radiation protection procedural compliance, boundary rigor, and reasons for radiation control were effectively communicated.
Inspection Report# : 2007003 *(pdf)*

Significance: G Jul 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Obtain Authorization to Enter a High Radiation Area
The inspector reviewed a self-revealing noncited violation of Technical Specification 6.8.1 because of a failure to follow procedural and radiation work permit requirements. On April 4, 2007, a worker entered a high radiation area without authorization, did not obtain a health physics briefing, and was not aware of the radiation protection controls established by the radiation work permit instructions. The licensee’s corrective actions were to counsel the worker and brief associated maintenance and craft personnel about adhering to procedures and radiation work permit requirements.

This finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process, and affected the cornerstone objective to ensure the adequate protection of a

worker's health and safety from exposure to radiation because it resulted in the worker being exposed to higher radiation levels. When processed through 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. In addition, this finding had a human performance crosscutting aspect, associated with work practices, because the licensee failed to ensure adequate supervisory and management oversight of work activities, including contractors, such that radiological safety was supported (H.4(c)). The licensee's common cause report, Condition Report 07-7030, concluded that the station did not have enough supervisors or radiation protection technicians in the field, in addition to management not consistently applying learning center requirements.
Inspection Report# : 2007003 *(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

Significance: N/A Oct 05, 2006
Identified By: NRC
Item Type: FIN Finding
Corrective Action Program Assessment
The inspectors reviewed approximately 253 condition reports, 23 work orders, associated root and apparent cause evaluations, and other supporting documentation to assess problem identification and resolution activities. Overall, the team identified that the licensee was effective at identifying problems and putting them into the corrective action program. The licensee's effectiveness at problem identification was evidenced by the relatively few deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee, during the review period. The licensee effectively used risk in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementing corrective actions. Corrective actions, when specified, were generally implemented in a timely manner. Licensee audits and assessments were found to be effective and highlighted a similar concern in the root cause area.

Operating experience usage was also found to be effective. Self assessment results adequately identified problems and proposed corrective actions to address these problems. On the basis of interviews conducted during this inspection, the team found that in general workers at the site felt free to input safety findings into the corrective action program, raise nuclear safety concerns to their supervision, bring concerns to the employee concerns program, and bring concerns to the NRC. During interviews, licensee personnel generally expressed confidence that nuclear safety issues that were entered into the corrective action program would be appropriately addressed. However, NRC's final assessment of the safety conscious work environment at is still under NRC review, pending final resolution of 10 CFR 2.206 petition.

During interviews, licensee personnel expressed confidence that nuclear safety issues that were entered into the corrective action program would be appropriately addressed. The inspectors found that the licensee's employee concerns program appropriately identified and adequately addressed nuclear safety concerns. The team concluded that overall a positive safety-conscious work environment existed at the South Texas Project Electric Generating Station.

Inspection Report# : 2006009 *(pdf)*

Last modified : December 07, 2007

South Texas 2
4Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Jul 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Turbine Load Rate Manipulation Results in Unexpected Power Reduction
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.a for the failure to follow Procedure 0POP03-ZG-0006, "Plant Shutdown from 100% to Hot Standby," Revision 28. As part of the shutdown, operations personnel are directed to reduce turbine load at the desired ramp rate by adjusting the load rate thumbwheel. However, during the evolution the thumbwheel was inadvertently moved in the wrong direction, thereby causing the turbine load rate to change from 0.25 percent/min to 200 percent/min. This resulted in a transient on the plant causing reactor power to lower by about 6 percent rated thermal power and average coolant temperature to rise by about 2.3 °F.

This finding was more than minor because it was associated with the Initiating Events Cornerstone attribute of human performance and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenged critical safety functions during power operations. The inspectors evaluated the violation using Inspection Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," Phase 1 screening, and determined that it was of very low safety significance because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase. This issue also had human performance crosscutting aspects, in the area of decision-making, because the licensee had not conducted effectiveness reviews of safety-significant decisions to verify the validity of the underlying assumptions, identify possible unintended consequences, and determine how to improve future decisions (H.1(b)). The licensee had previously evaluated most turbine control manipulations as 'skill of the craft' and did not identify the potential challenge to reactivity management. This was reflected in the manner in which the turbine was operated, always in the 'go' setting, and that the 200 percent/min position had not been previously eliminated as it served no operational function. This directly contributed to the resultant plant transient.
Inspection Report# : 2007003 *(pdf)*

Significance: G Apr 06, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Human Performance Error Hanging an Equipment Clearance Order
The inspectors reviewed a self-revealing finding for a failure to follow procedure, which resulted in losing power to Load Center 2G2 and subsequently the running stator cooling water pump, which would have resulted in a main turbine/reactor trip had the standby stator cooling water pump not auto started. The plant operator opened Breaker 2G2/3B, the supply breaker to Load Center 2G2, instead of Breaker 2G2/3C, the power supply to the condenser air removal system Pump 23. Just before opening the breaker, the plant operator took his eyes off the breaker to bend down and read the breaker racking procedure and the equipment clearance order. Upon standing up, the plant operator did not ensure that he was manipulating the correct breaker and inserted the breaker racking tool into the wrong breaker.

This finding was more than minor because it was associated with the initiating events cornerstone attribute of human performance and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors evaluated the finding using the Significance Determination Process Phase 1 screening and determined it to be of very low safety significance (Green) because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase. This issue also had human performance crosscutting aspects associated with work practices in that personnel involved failed to follow the procedure due to inadequate human error prevention

techniques, such as self and peer checking.

Inspection Report# : 2007002 *(pdf)*

Mitigating Systems

Significance: G Apr 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Maintenance Results in Damage to a HHSI Pump Resulting in NOED
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.a for failure to follow Procedures STI 32013741, "Conduct of Maintenance," dated May 15, 2006, and 0PMP04-SI-0002, "High Head Safety Injection Pump Maintenance." On November 27, 2006, the Unit 2 high head safety injection Pump 2A was declared inoperable in order to replace the mechanical seal. The craftsmen encountered several clearance (tolerance) problems trying to remove various parts of the pump. Instead of recognizing the unexpected conditions as adverse and stopping work, the craftsmen and their supervisor continued to troubleshoot the pump outside of the prescribed procedural steps. As a result, the pump was damaged and the licensee requested, which the NRC granted, enforcement discretion to prevent a required Technical Specification shutdown. This event demonstrated improper maintenance practices as outlined in the conduct of maintenance procedure, specifically, ". . . . If at any time a conflict arises, unexpected conditions develop, the job instructions are unclear, or the work cannot be performed as planned, stop the job."

The inspectors determined that the violation was more than minor because it was associated with the mitigating systems cornerstone attribute of equipment and human performance, and it affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Furthermore, the performance deficiency would have resulted in a Technical specification shutdown if not for the Notice of Enforcement Discretion. The inspectors evaluated the violation using Inspection Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," Phase 1 screening, and determined that it resulted in Phase 2 analysis due to a single train inoperable for longer than its TS allowed outage time. The Phase 2 analysis screened as Green. This finding also had human performance crosscutting aspects associated with work practices in that the licensee did not clearly define and effectively communicate expectations regarding procedural compliance and personnel following procedures.

Inspection Report# : 2007002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jul 06, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Two Examples of a Failure to Conspicuously Post and Barricade a High Radiation Area
The inspector identified two examples of a noncited violation of Technical Specification 6.12.1 because the licensee

failed to conspicuously post and barricade two separate high radiation areas. On April 19, 2007, during a tour of the reactor containment building, the inspector observed the entryways to the steam generator and pressurizer cubicles were not conspicuously posted or barricaded. The licensee's corrective action was to post and barricade these two areas.

This finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process, and affected the cornerstone objective to ensure the adequate protection of a worker's health and safety from exposure to radiation because it could have resulted in workers being exposed to higher radiation levels. When processed through 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. In addition, this finding had a human performance crosscutting aspect, associated with work practices, because the licensee failed to define and effectively communicate expectations about procedural compliance (H.4(b)). The licensee's common cause report, Condition Report 07-7030, concluded that the station had not taken the appropriate steps to ensure that workers' respect for radiation protection procedural compliance, boundary rigor, and reasons for radiation control were effectively communicated.
Inspection Report# : 2007003 *(pdf)*

Significance: G Jul 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Obtain Authorization to Enter a High Radiation Area
The inspector reviewed a self-revealing noncited violation of Technical Specification 6.8.1 because of a failure to follow procedural and radiation work permit requirements. On April 4, 2007, a worker entered a high radiation area without authorization, did not obtain a health physics briefing, and was not aware of the radiation protection controls established by the radiation work permit instructions. The licensee's corrective actions were to counsel the worker and brief associated maintenance and craft personnel about adhering to procedures and radiation work permit requirements.

This finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process, and affected the cornerstone objective to ensure the adequate protection of a worker's health and safety from exposure to radiation because it resulted in the worker being exposed to higher radiation levels. When processed through 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. In addition, this finding had a human performance crosscutting aspect, associated with work practices, because the licensee failed to ensure adequate supervisory and management oversight of work activities, including contractors, such that radiological safety was supported (H.4(c)). The licensee's common cause report, Condition Report 07-7030, concluded that the station did not have enough supervisors or radiation protection technicians in the field, in addition to management not consistently applying learning center requirements.
Inspection Report# : 2007003 *(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

Last modified : February 04, 2008

South Texas 2
1Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Jul 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Turbine Load Rate Manipulation Results in Unexpected Power Reduction
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.a for the failure to follow Procedure 0POP03-ZG-0006, "Plant Shutdown from 100% to Hot Standby," Revision 28. As part of the shutdown, operations personnel are directed to reduce turbine load at the desired ramp rate by adjusting the load rate thumbwheel. However, during the evolution the thumbwheel was inadvertently moved in the wrong direction, thereby causing the turbine load rate to change from 0.25 percent/min to 200 percent/min. This resulted in a transient on the plant causing reactor power to lower by about 6 percent rated thermal power and average coolant temperature to rise by about 2.3 °F.

This finding was more than minor because it was associated with the Initiating Events Cornerstone attribute of human performance and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenged critical safety functions during power operations. The inspectors evaluated the violation using Inspection Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," Phase 1 screening, and determined that it was of very low safety significance because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase. This issue also had human performance crosscutting aspects, in the area of decision-making, because the licensee had not conducted effectiveness reviews of safety-significant decisions to verify the validity of the underlying assumptions, identify possible unintended consequences, and determine how to improve future decisions (H.1(b)). The licensee had previously evaluated most turbine control manipulations as 'skill of the craft' and did not identify the potential challenge to reactivity management. This was reflected in the manner in which the turbine was operated, always in the 'go' setting, and that the 200 percent/min position had not been previously eliminated as it served no operational function. This directly contributed to the resultant plant transient.
Inspection Report# : 2007003 *(pdf)*

Significance: G Apr 06, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Human Performance Error Hanging an Equipment Clearance Order
The inspectors reviewed a self-revealing finding for a failure to follow procedure, which resulted in losing power to Load Center 2G2 and subsequently the running stator cooling water pump, which would have resulted in a main turbine/reactor trip had the standby stator cooling water pump not auto started. The plant operator opened Breaker 2G2/3B, the supply breaker to Load Center 2G2, instead of Breaker 2G2/3C, the power supply to the condenser air removal system Pump 23. Just before opening the breaker, the plant operator took his eyes off the breaker to bend down and read the breaker racking procedure and the equipment clearance order. Upon standing up, the plant operator did not ensure that he was manipulating the correct breaker and inserted the breaker racking tool into the wrong breaker.

This finding was more than minor because it was associated with the initiating events cornerstone attribute of human performance and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors evaluated the finding using the Significance Determination Process Phase 1 screening and determined it to be of very low safety significance (Green) because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase. This issue also had human performance crosscutting aspects associated with work practices in that personnel involved failed to follow the procedure due to inadequate human error prevention techniques, such as self and peer checking.

Inspection Report# : 2007002 *(pdf)*

Mitigating Systems

Significance: G Apr 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Maintenance Results in Damage to a HHSI Pump Resulting in NOED
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.a for failure to follow Procedures STI 32013741, "Conduct of Maintenance," dated May 15, 2006, and 0PMP04-SI-0002, "High Head Safety Injection Pump Maintenance." On November 27, 2006, the Unit 2 high head safety injection Pump 2A was declared inoperable in order to replace the mechanical seal. The craftsmen encountered several clearance (tolerance) problems trying to remove various parts of the pump. Instead of recognizing the unexpected conditions as adverse and stopping work, the craftsmen and their supervisor continued to troubleshoot the pump outside of the prescribed procedural steps. As a result, the pump was damaged and the licensee requested, which the NRC granted, enforcement discretion to prevent a required Technical Specification shutdown. This event demonstrated improper maintenance practices as outlined in the conduct of maintenance procedure, specifically, ". . . . If at any time a conflict arises, unexpected conditions develop, the job instructions are unclear, or the work cannot be performed as planned, stop the job."

The inspectors determined that the violation was more than minor because it was associated with the mitigating systems cornerstone attribute of equipment and human performance, and it affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Furthermore, the performance deficiency would have resulted in a Technical specification shutdown if not for the Notice of Enforcement Discretion. The inspectors evaluated the violation using Inspection Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," Phase 1 screening, and determined that it resulted in Phase 2 analysis due to a single train inoperable for longer than its TS allowed outage time. The Phase 2 analysis screened as Green. This finding also had human performance crosscutting aspects associated with work practices in that the licensee did not clearly define and effectively communicate expectations regarding procedural compliance and personnel following procedures.

Inspection Report# : 2007002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jul 06, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Two Examples of a Failure to Conspicuously Post and Barricade a High Radiation Area
The inspector identified two examples of a noncited violation of Technical Specification 6.12.1 because the licensee failed to conspicuously post and barricade two separate high radiation areas. On April 19, 2007, during a tour of the reactor containment building, the inspector observed the entryways to the steam generator and pressurizer cubicles

were not conspicuously posted or barricaded. The licensee's corrective action was to post and barricade these two areas.

This finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process, and affected the cornerstone objective to ensure the adequate protection of a worker's health and safety from exposure to radiation because it could have resulted in workers being exposed to higher radiation levels. When processed through 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. In addition, this finding had a human performance crosscutting aspect, associated with work practices, because the licensee failed to define and effectively communicate expectations about procedural compliance (H.4(b)). The licensee's common cause report, Condition Report 07-7030, concluded that the station had not taken the appropriate steps to ensure that workers' respect for radiation protection procedural compliance, boundary rigor, and reasons for radiation control were effectively communicated.
Inspection Report# : 2007003 *(pdf)*

Significance: G Jul 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Obtain Authorization to Enter a High Radiation Area
The inspector reviewed a self-revealing noncited violation of Technical Specification 6.8.1 because of a failure to follow procedural and radiation work permit requirements. On April 4, 2007, a worker entered a high radiation area without authorization, did not obtain a health physics briefing, and was not aware of the radiation protection controls established by the radiation work permit instructions. The licensee's corrective actions were to counsel the worker and brief associated maintenance and craft personnel about adhering to procedures and radiation work permit requirements.

This finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process, and affected the cornerstone objective to ensure the adequate protection of a worker's health and safety from exposure to radiation because it resulted in the worker being exposed to higher radiation levels. When processed through 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. In addition, this finding had a human performance crosscutting aspect, associated with work practices, because the licensee failed to ensure adequate supervisory and management oversight of work activities, including contractors, such that radiological safety was supported (H.4(c)). The licensee's common cause report, Condition Report 07-7030, concluded that the station did not have enough supervisors or radiation protection technicians in the field, in addition to management not consistently applying learning center requirements.
Inspection Report# : 2007003 *(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

Last modified : June 05, 2008

South Texas 2
2Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Jul 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Turbine Load Rate Manipulation Results in Unexpected Power Reduction
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.a for the failure to follow Procedure 0POP03-ZG-0006, “Plant Shutdown from 100% to Hot Standby,” Revision 28. As part of the shutdown, operations personnel are directed to reduce turbine load at the desired ramp rate by adjusting the load rate thumbwheel. However, during the evolution the thumbwheel was inadvertently moved in the wrong direction, thereby causing the turbine load rate to change from 0.25 percent/min to 200 percent/min. This resulted in a transient on the plant causing reactor power to lower by about 6 percent rated thermal power and average coolant temperature to rise by about 2.3 °F.

This finding was more than minor because it was associated with the Initiating Events Cornerstone attribute of human performance and it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenged critical safety functions during power operations. The inspectors evaluated the violation using Inspection Manual Chapter 0609, “Significance Determination Process,” Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, and determined that it was of very low safety significance because, although the likelihood of a reactor trip increased, the likelihood that mitigating systems would not be available did not increase. This issue also had human performance crosscutting aspects, in the area of decision-making, because the licensee had not conducted effectiveness reviews of safety-significant decisions to verify the validity of the underlying assumptions, identify possible unintended consequences, and determine how to improve future decisions (H.1(b)). The licensee had previously evaluated most turbine control manipulations as ‘skill of the craft’ and did not identify the potential challenge to reactivity management. This was reflected in the manner in which the turbine was operated, always in the ‘go’ setting, and that the 200 percent/min position had not been previously eliminated as it served no operational function. This directly contributed to the resultant plant transient.
Inspection Report# : 2007003 *(pdf)*

Mitigating Systems

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Specify Setpoint Calibration Limits in Relay Setpoint Calculations
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to specify in a design calculation allowable relay setpoint tolerances. Specifically, the licensee failed to specify and verify in the relay setpoint calculations the relay setpoint tolerances used in the calibration test procedures. The issue was documented in the corrective action program as Condition Record 07-15443.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. The failure to verify the effects of relay setpoint tolerances on relay coordination time intervals could have resulted in a loss-of-relay coordination and could lead to either a loss of power to safety-related components or lead to a potential for compromising other equipment on a single fault that the relay was designed to isolate. Using Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1

screening, the finding screened as having very low safety significance (Green) because the condition did not represent a loss of safety function of a system or a train.
Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Manual Loads not Considered for Fuel Oil Storage Tank Sizing Calculation
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to include all potential loads in the standby diesel generator fuel oil sizing calculation. Specifically, the licensee did not account for increased standby diesel generator fuel oil usage resulting from the addition of manual electrical loads during the 7-day mission run time. The licensee entered this finding into their corrective action program as Condition Record 07-15592. The licensee subsequently demonstrated that the spent fuel pool cooling pumps would be the only additional manual loads actually used during the 7 days of operation in the bounding design basis scenario and that there were additional conservative assumptions in the sizing calculation to demonstrate sufficient margin.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Use Correct Design Inputs in Determination of the Weak Link for the Auxiliary Feedwater System Outside Containment Isolation Motor Operated Valves
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," of very low safety significance for the failure to translate design basis information into specifications and procedures. Specifically, a non-conservative system pressure was used as an input to an engineering design calculation for the auxiliary feedwater outside containment isolation valves. This finding has been entered into the licensee's corrective action program as Condition Record 07-15455.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not represent a loss safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Surveillance Procedure Lacked Check for Timing of Chiller Loading on the Bus
The team identified a noncited violation of Technical Specification Surveillance Requirement 4.8.1.1.2.E.11, having very low safety significance for the licensee’s failure to adequately perform the technical specification surveillance requirement. Specifically, the licensee failed to verify the loading times of the essential chillers in order to verify the automatic load sequence timer was operable. This issue was entered into the licensee’s corrective action program as Condition Records 07 14903 and 07-14959.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not represent a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Test Program for 125V DC Molded Case Circuit Breakers
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," having very low safety significance for the licensee’s failure to implement a test program to assure that all installed safety-related molded case circuit breakers will perform satisfactorily in service. Specifically, the licensee had not adequately exercised or subjected to periodic testing all of the 125V dc molded case circuit breakers since initial plant operation. The licensee entered the finding into their corrective action program as Condition Record 07-15817.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Equipment Performance.” It impacts the cornerstone objective of ensuring the availability, reliability, capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not result in a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Incorporate Instrument Uncertainties into Surveillance Requirements for Technical Specification Limiting Condition for Operation 3.5.2 (Specifically Surveillance Requirement 4.5.2.f)
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," of very low safety significance for the failure to adequately translate design basis information into specifications and procedures. Specifically, measurement instrument uncertainties were not included in the determination of minimum allowed high head safety injection pump and low head safety injection pump developed head values used during periodic technical specification surveillance testing. The licensee entered the finding into their corrective action program as Condition Record 07-15752.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not result in a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jul 06, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Two Examples of a Failure to Conspicuously Post and Barricade a High Radiation Area
The inspector identified two examples of a noncited violation of Technical Specification 6.12.1 because the licensee failed to conspicuously post and barricade two separate high radiation areas. On April 19, 2007, during a tour of the reactor containment building, the inspector observed the entryways to the steam generator and pressurizer cubicles were not conspicuously posted or barricaded. The licensee's corrective action was to post and barricade these two areas.

This finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process, and affected the cornerstone objective to ensure the adequate protection of a worker's health and safety from exposure to radiation because it could have resulted in workers being exposed to higher radiation levels. When processed through 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. In addition, this finding had a human performance crosscutting aspect, associated with work practices, because the licensee failed to define and effectively communicate expectations about procedural compliance (H.4(b)). The licensee's common cause report, Condition Report 07-7030, concluded that the station had not taken the appropriate steps to ensure that workers' respect for radiation protection procedural compliance, boundary rigor, and reasons for radiation control were effectively communicated.
Inspection Report# : 2007003 *(pdf)*

Significance: G Jul 06, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Obtain Authorization to Enter a High Radiation Area
The inspector reviewed a self-revealing noncited violation of Technical Specification 6.8.1 because of a failure to follow procedural and radiation work permit requirements. On April 4, 2007, a worker entered a high radiation area without authorization, did not obtain a health physics briefing, and was not aware of the radiation protection controls established by the radiation work permit instructions. The licensee's corrective actions were to counsel the worker and brief associated maintenance and craft personnel about adhering to procedures and radiation work permit requirements.

This finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process, and affected the cornerstone objective to ensure the adequate protection of a worker's health and safety from exposure to radiation because it resulted in the worker being exposed to higher radiation levels. When processed through 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. In addition, this finding had a human performance crosscutting aspect, associated with work practices, because the licensee failed to ensure adequate supervisory and management oversight of work activities, including contractors, such that radiological safety was supported (H.4(c)). The licensee's common cause report, Condition Report 07-7030, concluded that the station did not have enough supervisors or radiation protection technicians in the field, in addition to management not consistently applying learning center requirements.
Inspection Report# : 2007003 *(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

Last modified : August 29, 2008

South Texas 2
3Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Aug 14, 2008
Identified By: NRC
Item Type: FIN Finding
Ineffective Corrective Actions on the Equipment Clearance Order Process
The team identified a finding involving ineffective corrective actions for the equipment clearance order process. Despite the identification of numerous related failures of the equipment clearance order process in various significant conditions adverse to quality condition reports and recent audit reports, the licensee had not performed an effective overall assessment of the equipment clearance order/work process control to determine the extent of the condition and therefore, had not implemented effective corrective actions to address the underlying causes.

The team determined that the ineffective corrective actions associated with the equipment clearance order process, which continues to result in equipment clearance order errors affecting personnel and equipment safety, was a performance deficiency. The team determined that the finding was more than minor because it affected the Initiating Events cornerstone objective to limit those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The team evaluated the finding using the Phase 1 worksheet in Inspection Manual Chapter 0609, "Significance Determination Process," and determined the finding to have very low safety significance because: it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would be unavailable; it did not contribute to the likelihood of a loss-of-coolant accident; and it did not increase the likelihood of a fire or flooding. This issue has a crosscutting aspect in the area of human performance, specifically, the work practices aspect, in that, the licensee failed to adequately define and communicate expectations regarding procedural compliance and personnel following procedures. [H.4(b)]
Inspection Report# : 2008009 *(pdf)*

Significance: G Jun 28, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to evaluate and/or Document Multiple Boric Acid Leaks with Changed Conditions
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for failure to follow Procedure 0PGP03-ZE-0133, “Boric Acid Corrosion Control Program,” Revision 0 and Revision 1, which resulted in the licensee not re-evaluating changes to the material condition of plant equipment. On February 26, 2008, in preparation for Unit 1 Refueling Outage 1RE14, the inspectors identified boric acid deposits that appeared brown in color on spent fuel pool Valve 1-FC-0010B. Additional examples were identified by both the licensee and the inspectors where a changed condition was not re-evaluated. These examples point to multiple examples of the licensee failing to follow the established procedure for boric acid corrosion. The licensee entered this issue into their corrective action program as Condition Report 08-8059.

The finding is more than minor because if the failure to ensure that the original assumptions remain valid when the leakage type or color changes continued, then unevaluated degradation of safety-related components could continue and lead to a more significant safety concern. The finding is associated with the Initiating Events cornerstone attribute of human performance and it affects the cornerstone objective of limiting those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. This finding was determined to be of very low safety significance based on Inspection Manual Chapter 0609, Appendix A, Phase 1 worksheet of the Significance Determination Process because it did not result in exceeding the Technical Specification limit for reactor coolant system leakage or affect other mitigating systems resulting in a loss of safety function. In addition, this finding had human performance crosscutting aspects associated with resources, in that, station personnel had a high number of backlog items related to the boric acid corrosion control program resulting in personnel not following the timelines established by the procedure [H.2(a)].

Inspection Report# : 2008003 *(pdf)*

Mitigating Systems

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Specify Setpoint Calibration Limits in Relay Setpoint Calculations

The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to specify in a design calculation allowable relay setpoint tolerances. Specifically, the licensee failed to specify and verify in the relay setpoint calculations the relay setpoint tolerances used in the calibration test procedures. The issue was documented in the corrective action program as Condition Record 07-15443.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. The failure to verify the effects of relay setpoint tolerances on relay coordination time intervals could have resulted in a loss-of-relay coordination and could lead to either a loss of power to safety-related components or lead to a potential for compromising other equipment on a single fault that the relay was designed to isolate. Using Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because the condition did not represent a loss of safety function of a system or a train.
Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Manual Loads not Considered for Fuel Oil Storage Tank Sizing Calculation
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to include all potential loads in the standby diesel generator fuel oil sizing calculation. Specifically, the licensee did not account for increased standby diesel generator fuel oil usage resulting from the addition of manual electrical loads during the 7-day mission run time. The licensee entered this finding into their corrective action program as Condition Record 07-15592. The licensee subsequently demonstrated that the spent fuel pool cooling pumps would be the only additional manual loads actually used during the 7 days of operation in the bounding design basis scenario and that there were additional conservative assumptions in the sizing calculation to demonstrate sufficient margin.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Use Correct Design Inputs in Determination of the Weak Link for the Auxiliary Feedwater System Outside Containment Isolation Motor Operated Valves
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," of very low safety significance for the failure to translate design basis information into specifications and procedures. Specifically, a non-conservative system pressure was used as an input to an engineering design calculation for the auxiliary feedwater outside containment isolation valves. This finding has been entered into the licensee's corrective action program as Condition Record 07-15455.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not represent a loss safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Surveillance Procedure Lacked Check for Timing of Chiller Loading on the Bus
The team identified a noncited violation of Technical Specification Surveillance Requirement 4.8.1.1.2.E.11, having very low safety significance for the licensee’s failure to adequately perform the technical specification surveillance requirement. Specifically, the licensee failed to verify the loading times of the essential chillers in order to verify the automatic load sequence timer was operable. This issue was entered into the licensee’s corrective action program as Condition Records 07 14903 and 07-14959.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor

Inspection Findings for At-Power Situations," Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not represent a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Test Program for 125V DC Molded Case Circuit Breakers
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," having very low safety significance for the licensee's failure to implement a test program to assure that all installed safety-related molded case circuit breakers will perform satisfactorily in service. Specifically, the licensee had not adequately exercised or subjected to periodic testing all of the 125V dc molded case circuit breakers since initial plant operation. The licensee entered the finding into their corrective action program as Condition Record 07-15817.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Equipment Performance." It impacts the cornerstone objective of ensuring the availability, reliability, capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not result in a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Incorporate Instrument Uncertainties into Surveillance Requirements for Technical Specification Limiting Condition for Operation 3.5.2 (Specifically Surveillance Requirement 4.5.2.f)
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," of very low safety significance for the failure to adequately translate design basis information into specifications and procedures. Specifically, measurement instrument uncertainties were not included in the determination of minimum allowed high head safety injection pump and low head safety injection pump developed head values used during periodic technical specification surveillance testing. The licensee entered the finding into their corrective action program as Condition Record 07-15752.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not result in a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(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

Last modified : November 26, 2008

South Texas 2
4Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Aug 14, 2008
Identified By: NRC
Item Type: FIN Finding
Ineffective Corrective Actions on the Equipment Clearance Order Process
The team identified a finding involving ineffective corrective actions for the equipment clearance order process. Despite the identification of numerous related failures of the equipment clearance order process in various significant conditions adverse to quality condition reports and recent audit reports, the licensee had not performed an effective overall assessment of the equipment clearance order/work process control to determine the extent of the condition and therefore, had not implemented effective corrective actions to address the underlying causes.

The team determined that the ineffective corrective actions associated with the equipment clearance order process, which continues to result in equipment clearance order errors affecting personnel and equipment safety, was a performance deficiency. The team determined that the finding was more than minor because it affected the Initiating Events cornerstone objective to limit those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The team evaluated the finding using the Phase 1 worksheet in Inspection Manual Chapter 0609, "Significance Determination Process," and determined the finding to have very low safety significance because: it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would be unavailable; it did not contribute to the likelihood of a loss-of-coolant accident; and it did not increase the likelihood of a fire or flooding. This issue has a crosscutting aspect in the area of human performance, specifically, the work practices aspect, in that, the licensee failed to adequately define and communicate expectations regarding procedural compliance and personnel following procedures. [H.4(b)]
Inspection Report# : 2008009 *(pdf)*

Significance: G Jun 28, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to evaluate and/or Document Multiple Boric Acid Leaks with Changed Conditions
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for failure to follow Procedure 0PGP03-ZE-0133, “Boric Acid Corrosion Control Program,” Revision 0 and Revision 1, which resulted in the licensee not re-evaluating changes to the material condition of plant equipment. On February 26, 2008, in preparation for Unit 1 Refueling Outage 1RE14, the inspectors identified boric acid deposits that appeared brown in color on spent fuel pool Valve 1-FC-0010B. Additional examples were identified by both the licensee and the inspectors where a changed condition was not re-evaluated. These examples point to multiple examples of the licensee failing to follow the established procedure for boric acid corrosion. The licensee entered this issue into their corrective action program as Condition Report 08-8059.

The finding is more than minor because if the failure to ensure that the original assumptions remain valid when the leakage type or color changes continued, then unevaluated degradation of safety-related components could continue and lead to a more significant safety concern. The finding is associated with the Initiating Events cornerstone attribute of human performance and it affects the cornerstone objective of limiting those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. This finding was determined to be of very low safety significance based on Inspection Manual Chapter 0609, Appendix A, Phase 1 worksheet of the Significance Determination Process because it did not result in exceeding the Technical Specification limit for reactor coolant system leakage or affect other mitigating systems resulting in a loss of safety function. In addition, this finding had human performance crosscutting aspects associated with resources, in that, station personnel had a high number of backlog items related to the boric acid corrosion control program resulting in personnel not following the timelines

established by the procedure [H.2(a)].

Inspection Report# : 2008003 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Perform Routine Operator Rounds Results in the Creation of Fire Hazards
The inspectors identified two examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V (Procedures), for the failure to adequately perform routine operator rounds in accordance with station procedures. Plant operators had failed to observe degraded material conditions (oil soaked insulation) and abnormal oil leakage onto the floor below Essential Chiller 22C, and stray material (oil absorbent pads) in between the cylinder heads of the standby Diesel Generators 11 and 13. The inspectors determined that both examples resulted in fire hazards. The licensee implemented corrective actions to remove the fire hazards and entered the concerns into their corrective action program as Condition Reports 08-18903, 08-19296, 09-184, and 09-195.

The finding was more than minor because it was similar to example 4.f of Manual Chapter 0612, Appendix E, "Examples of Minor Issues," because both conditions created a fire hazard. The inspectors used NRC Inspection Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” to determine that the finding was of very low safety significance because the deficiency resulted in a low degradation rating that minimally impacted the plant combustible material controls program element of the fire prevention and administrative controls category. In addition, the finding had a Problem Identification and Resolution crosscutting aspect (corrective action program component), because operators failed to implement a corrective action program with a low threshold for identifying issues [P.1(a)].

Inspection Report# : 2008005 *(pdf)*

Significance: G Sep 27, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedures Resulted in Isolation of Majority of Fire Water
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.d for the failure to follow Procedure 0PGP03-ZF-0018, “Fire Protection System Operability Requirements,” Revision 14. As a result the licensee unintentionally isolated fire water to all of Unit 2 and a majority of Unit 1. The licensee entered this issue into the corrective action program for resolution.

The inspectors determined the finding was more than minor because it affected the mitigating systems cornerstone objective of ensuring the availability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using the fire protection significance determination process. The finding screened to a Phase 2 based on a high degradation rating and the number of areas impacted. The Phase 2 screening resulted in a high degradation rating based on the number of areas impacted. Consequently, the licensee performed a detailed probabilistic risk assessment analysis using their fire probabilistic risk assessment model, and determined that the overall increase in core damage probability and in large early release probability was of very low safety significance. The regional senior reactor analyst compared the licensee’s results with the NRC’s review of the individual plant examination of external events and concluded that the results were essentially identical. Based on these results, the inspectors determined that the risk significance of the event was of very low safety significance. Additionally, the inspectors determined that the issue had crosscutting aspects associated with the work control component of human performance, in that, the licensee did not incorporate the impact of work on different job activities, the need for work groups to stay apprised of work status, operational impact of work activities, and other plant conditions that may affect the work activity [H.3(b)].

Inspection Report# : 2008004 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Specify Setpoint Calibration Limits in Relay Setpoint Calculations
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to specify in a design calculation allowable relay setpoint tolerances. Specifically, the licensee failed to specify and verify in the relay setpoint calculations the relay setpoint tolerances used in the calibration test procedures. The issue was documented in the corrective action program as Condition Record 07-15443.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. The failure to verify the effects of relay setpoint tolerances on relay coordination time intervals could have resulted in a loss-of-relay coordination and could lead to either a loss of power to safety-related components or lead to a potential for compromising other equipment on a single fault that the relay was designed to isolate. Using Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because the condition did not represent a loss of safety function of a system or a train.
Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Manual Loads not Considered for Fuel Oil Storage Tank Sizing Calculation
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to include all potential loads in the standby diesel generator fuel oil sizing calculation. Specifically, the licensee did not account for increased standby diesel generator fuel oil usage resulting from the addition of manual electrical loads during the 7-day mission run time. The licensee entered this finding into their corrective action program as Condition Record 07-15592. The licensee subsequently demonstrated that the spent fuel pool cooling pumps would be the only additional manual loads actually used during the 7 days of operation in the bounding design basis scenario and that there were additional conservative assumptions in the sizing calculation to demonstrate sufficient margin.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Use Correct Design Inputs in Determination of the Weak Link for the Auxiliary Feedwater System Outside Containment Isolation Motor Operated Valves
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," of very low safety significance for the failure to translate design basis information into specifications and procedures. Specifically, a non-conservative system pressure was used as an input to an engineering design calculation for the auxiliary

feedwater outside containment isolation valves. This finding has been entered into the licensee's corrective action program as Condition Record 07-15455.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not represent a loss safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Surveillance Procedure Lacked Check for Timing of Chiller Loading on the Bus
The team identified a noncited violation of Technical Specification Surveillance Requirement 4.8.1.1.2.E.11, having very low safety significance for the licensee’s failure to adequately perform the technical specification surveillance requirement. Specifically, the licensee failed to verify the loading times of the essential chillers in order to verify the automatic load sequence timer was operable. This issue was entered into the licensee’s corrective action program as Condition Records 07 14903 and 07-14959.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not represent a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Test Program for 125V DC Molded Case Circuit Breakers
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," having very low safety significance for the licensee’s failure to implement a test program to assure that all installed safety-related molded case circuit breakers will perform satisfactorily in service. Specifically, the licensee had not adequately exercised or subjected to periodic testing all of the 125V dc molded case circuit breakers since initial plant operation. The licensee entered the finding into their corrective action program as Condition Record 07-15817.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Equipment Performance.” It impacts the cornerstone objective of ensuring the availability, reliability, capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not result in a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(pdf)*

Significance: G Jan 22, 2008
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to Incorporate Instrument Uncertainties into Surveillance Requirements for Technical Specification Limiting Condition for Operation 3.5.2 (Specifically Surveillance Requirement 4.5.2.f)
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," of very low safety significance for the failure to adequately translate design basis information into specifications and procedures. Specifically, measurement instrument uncertainties were not included in the determination of minimum allowed high head safety injection pump and low head safety injection pump developed head values used during periodic technical specification surveillance testing. The licensee entered the finding into their corrective action program as Condition Record 07-15752.

The finding was determined to be more than minor because it is associated with the Mitigating Systems cornerstone attribute of "Design Control." It impacts the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” Phase 1 screening, the finding screened as having very low safety significance (Green) because it did not result in a loss of safety function of a system or a train.

Inspection Report# : 2007007 *(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 Aug 14, 2008
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team reviewed approximately 360 condition reports, work orders, associated root and apparent cause evaluations, and other supporting documentation to assess the problem identification and resolution process. The team also performed a five year review of the essential cooling water system to determine whether problems were being

effectively addressed. As a result of these reviews, the team concluded that the licensee was generally effective in identifying, evaluating, and ultimately 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 reviewed a sample of condition reports that involved operability issues to assess the adequacy and timeliness of the operability assessment process. The team noted that problems with operability review have existed throughout the period. Specifically, the station has repeatedly documented operability review issues in condition reports, in audits, and during Executive Oversight Review Board reports. However, changes to address these issues were not implemented until April 2008, and insufficient time has elapsed to adequately evaluate the effectiveness of these changes.

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. The team noted improvement in the use of internal and external operating experience during the planning of work evolutions. The team also determined that the licensee was evaluating industry operating experience when performing root cause and apparent cause evaluations.

Although quality assurance audits have been effective in identifying substantive issues and areas for improvement, some of the associated actions have not been acted upon in a timely manner. Other self-assessment activities were narrowly focused and often did not identify any insightful issues concerning performance which limited the value of the assessment.

Overall, the team concluded that there was a safety conscious work environment in place at South Texas Project. In particular, the team also determined that a number of improvements have been implemented to address communication challenges and cultural issues related to the security organization. Despite these improvements, the team did encounter instances where personnel did not feel that their concerns were being adequately addressed. Subsequent to the completion of extensive safety conscious work environment interviews involving 60 personnel, the team determined that many of the individuals questioned lacked confidence in the effectiveness of the Employee Concerns Program.

Inspection Report# : 2008009 *(pdf)*

Last modified : April 07, 2009

South Texas 2
1Q/2009 Plant Inspection Findings

Initiating Events

Significance: G Aug 14, 2008
Identified By: NRC
Item Type: FIN Finding
Ineffective Corrective Actions on the Equipment Clearance Order Process
The team identified a finding involving ineffective corrective actions for the equipment clearance order process. Despite the identification of numerous related failures of the equipment clearance order process in various significant conditions adverse to quality condition reports and recent audit reports, the licensee had not performed an effective overall assessment of the equipment clearance order/work process control to determine the extent of the condition and therefore, had not implemented effective corrective actions to address the underlying causes.

The team determined that the ineffective corrective actions associated with the equipment clearance order process, which continues to result in equipment clearance order errors affecting personnel and equipment safety, was a performance deficiency. The team determined that the finding was more than minor because it affected the Initiating Events cornerstone objective to limit those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The team evaluated the finding using the Phase 1 worksheet in Inspection Manual Chapter 0609, "Significance Determination Process," and determined the finding to have very low safety significance because: it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would be unavailable; it did not contribute to the likelihood of a loss-of-coolant accident; and it did not increase the likelihood of a fire or flooding. This issue has a crosscutting aspect in the area of human performance, specifically, the work practices aspect, in that, the licensee failed to adequately define and communicate expectations regarding procedural compliance and personnel following procedures. [H.4(b)]
Inspection Report# : 2008009 *(pdf)*

Significance: G Jun 28, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to evaluate and/or Document Multiple Boric Acid Leaks with Changed Conditions
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for failure to follow Procedure 0PGP03-ZE-0133, “Boric Acid Corrosion Control Program,” Revision 0 and Revision 1, which resulted in the licensee not re-evaluating changes to the material condition of plant equipment. On February 26, 2008, in preparation for Unit 1 Refueling Outage 1RE14, the inspectors identified boric acid deposits that appeared brown in color on spent fuel pool Valve 1-FC-0010B. Additional examples were identified by both the licensee and the inspectors where a changed condition was not re-evaluated. These examples point to multiple examples of the licensee failing to follow the established procedure for boric acid corrosion. The licensee entered this issue into their corrective action program as Condition Report 08-8059.

The finding is more than minor because if the failure to ensure that the original assumptions remain valid when the leakage type or color changes continued, then unevaluated degradation of safety-related components could continue and lead to a more significant safety concern. The finding is associated with the Initiating Events cornerstone attribute of human performance and it affects the cornerstone objective of limiting those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. This finding was determined to be of very low safety significance based on Inspection Manual Chapter 0609, Appendix A, Phase 1 worksheet of the Significance Determination Process because it did not result in exceeding the Technical Specification limit for reactor coolant system leakage or affect other mitigating systems resulting in a loss of safety function. In addition, this finding had human performance crosscutting aspects associated with resources, in that, station personnel had a high number of backlog items related to the boric acid corrosion control program resulting in personnel not following the timelines

established by the procedure [H.2(a)].

Inspection Report# : 2008003 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Perform Routine Operator Rounds Results in the Creation of Fire Hazards
The inspectors identified two examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V (Procedures), for the failure to adequately perform routine operator rounds in accordance with station procedures. Plant operators had failed to observe degraded material conditions (oil soaked insulation) and abnormal oil leakage onto the floor below Essential Chiller 22C, and stray material (oil absorbent pads) in between the cylinder heads of the standby Diesel Generators 11 and 13. The inspectors determined that both examples resulted in fire hazards. The licensee implemented corrective actions to remove the fire hazards and entered the concerns into their corrective action program as Condition Reports 08-18903, 08-19296, 09-184, and 09-195.

The finding was more than minor because it was similar to example 4.f of Manual Chapter 0612, Appendix E, "Examples of Minor Issues," because both conditions created a fire hazard. The inspectors used NRC Inspection Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” to determine that the finding was of very low safety significance because the deficiency resulted in a low degradation rating that minimally impacted the plant combustible material controls program element of the fire prevention and administrative controls category. In addition, the finding had a Problem Identification and Resolution crosscutting aspect (corrective action program component), because operators failed to implement a corrective action program with a low threshold for identifying issues [P.1(a)].

Inspection Report# : 2008005 *(pdf)*

Significance: G Sep 27, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedures Resulted in Isolation of Majority of Fire Water
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.d for the failure to follow Procedure 0PGP03-ZF-0018, “Fire Protection System Operability Requirements,” Revision 14. As a result the licensee unintentionally isolated fire water to all of Unit 2 and a majority of Unit 1. The licensee entered this issue into the corrective action program for resolution.

The inspectors determined the finding was more than minor because it affected the mitigating systems cornerstone objective of ensuring the availability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using the fire protection significance determination process. The finding screened to a Phase 2 based on a high degradation rating and the number of areas impacted. The Phase 2 screening resulted in a high degradation rating based on the number of areas impacted. Consequently, the licensee performed a detailed probabilistic risk assessment analysis using their fire probabilistic risk assessment model, and determined that the overall increase in core damage probability and in large early release probability was of very low safety significance. The regional senior reactor analyst compared the licensee’s results with the NRC’s review of the individual plant examination of external events and concluded that the results were essentially identical. Based on these results, the inspectors determined that the risk significance of the event was of very low safety significance. Additionally, the inspectors determined that the issue had crosscutting aspects associated with the work control component of human performance, in that, the licensee did not incorporate the impact of work on different job activities, the need for work groups to stay apprised of work status, operational impact of work activities, and other plant conditions that may affect the work activity [H.3(b)].

Inspection Report# : 2008004 *(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 Aug 14, 2008
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team reviewed approximately 360 condition reports, work orders, associated root and apparent cause evaluations, and other supporting documentation to assess the problem identification and resolution process. The team also performed a five year review of the essential cooling water system to determine whether problems were being effectively addressed. As a result of these reviews, the team concluded that the licensee was generally effective in identifying, evaluating, and ultimately 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 reviewed a sample of condition reports that involved operability issues to assess the adequacy and timeliness of the operability assessment process. The team noted that problems with operability review have existed throughout the period. Specifically, the station has repeatedly documented operability review issues in condition reports, in audits, and during Executive Oversight Review Board reports. However, changes to address these issues were not implemented until April 2008, and insufficient time has elapsed to adequately evaluate the effectiveness of these changes.

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. The team noted improvement in the use of internal and external operating

experience during the planning of work evolutions. The team also determined that the licensee was evaluating industry operating experience when performing root cause and apparent cause evaluations.

Although quality assurance audits have been effective in identifying substantive issues and areas for improvement, some of the associated actions have not been acted upon in a timely manner. Other self-assessment activities were narrowly focused and often did not identify any insightful issues concerning performance which limited the value of the assessment.

Overall, the team concluded that there was a safety conscious work environment in place at South Texas Project. In particular, the team also determined that a number of improvements have been implemented to address communication challenges and cultural issues related to the security organization. Despite these improvements, the team did encounter instances where personnel did not feel that their concerns were being adequately addressed. Subsequent to the completion of extensive safety conscious work environment interviews involving 60 personnel, the team determined that many of the individuals questioned lacked confidence in the effectiveness of the Employee Concerns Program.

Inspection Report# : 2008009 *(pdf)*

Last modified : June 05, 2009

South Texas 2
2Q/2009 Plant Inspection Findings

Initiating Events

Significance: G Aug 14, 2008
Identified By: NRC
Item Type: FIN Finding
Ineffective Corrective Actions on the Equipment Clearance Order Process
The team identified a finding involving ineffective corrective actions for the equipment clearance order process. Despite the identification of numerous related failures of the equipment clearance order process in various significant conditions adverse to quality condition reports and recent audit reports, the licensee had not performed an effective overall assessment of the equipment clearance order/work process control to determine the extent of the condition and therefore, had not implemented effective corrective actions to address the underlying causes.

The team determined that the ineffective corrective actions associated with the equipment clearance order process, which continues to result in equipment clearance order errors affecting personnel and equipment safety, was a performance deficiency. The team determined that the finding was more than minor because it affected the Initiating Events cornerstone objective to limit those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The team evaluated the finding using the Phase 1 worksheet in Inspection Manual Chapter 0609, "Significance Determination Process," and determined the finding to have very low safety significance because: it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would be unavailable; it did not contribute to the likelihood of a loss-of-coolant accident; and it did not increase the likelihood of a fire or flooding. This issue has a crosscutting aspect in the area of human performance, specifically, the work practices aspect, in that, the licensee failed to adequately define and communicate expectations regarding procedural compliance and personnel following procedures. [H.4(b)]
Inspection Report# : 2008009 *(pdf)*

Mitigating Systems

Significance: G Apr 09, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Assess and Manage Outage Maintenance Risk Activities Resulting in the Loss of the Residual Heat Removal System
The inspectors reviewed a self-revealing noncited violation of 10 CFR 50.65(a)(4), for the failure to assess and manage risk from an emergent maintenance work activity on the solid state protection system during the Unit 2 refueling outage that resulted in a loss of the residual heat removal system. Specifically, on October 25, 2008, the licensee planned an emergent maintenance activity to replace a general logic card on the solid state protection system without adequately assessing the risk to the plant. Consequently, when the logic card was removed, the low steam pressure safety injection actuation signal became unblocked and resulted in the loss of the operating residual heat removal system pumps. The licensee's immediate corrective action was to restore the residual heat removal system to operation and enter the issue into their corrective action program.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and adversely affected the cornerstone objective of availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Phase 1 screening criteria of Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process,"

Attachment 1, Checklist 4, the finding screened to a Phase 2 quantitative analysis because no residual heat removal loops were in operation. The finding was determined to be of very low safety significance because the Phase 2 screening by the senior reactor analyst concluded that the conditional core damage probability from this event was approximately 1E-08. In addition, this finding had human performance crosscutting aspects associated with decision making [H.1(a)] because the licensee failed to make risk-significant decisions using a systematic process to ensure safety is maintained, and did not formally define authority and roles for key personnel responsible for implementing these risk-significant decisions.

Inspection Report# : 2009002 *(pdf)*

Significance: G Apr 09, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Reportability Misses an Inoperable Component Cooling Water Train
The inspectors identified a noncited violation of Technical Specification 3.7.3 for an inadequate reportability review on the Train A component cooling water low-level actuation switch which failed during surveillance testing. 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. The inspectors continued to ask questions related to the event and discovered that the last time the switch was manipulated was January 22, 2008, during a calibration procedure. After the inspectors questioned the reportability, engineering reviewed it and determined that the calibration procedure did not have a functional check of the switch internal contacts before restoration. Engineering concluded that, as a result of the switch not being functionally checked after the calibration, that the wire must have become disconnected during the restoration section of the procedure. Consequently, from January 22, 2008 through October 16, 2008, the Train A component cooling water low-low level switch was inoperable and therefore reportable. The licensee performed a root cause of the event itself and an apparent cause for operations inappropriately applying time of discovery for the initial reportability review under Condition Reports 08-15541 and 08-19420, respectively.

The finding was more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern in that inadequate operability/reportability reviews could result in a degraded system being returned to service, and it affected the Mitigating Systems cornerstone attribute of human performance 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. In addition, this finding had Problem Identification and Resolution crosscutting aspects associated with the corrective action program [P.1(c)] because the licensee failed to thoroughly evaluate for operability and reportability conditions adverse to quality.
Inspection Report# : 2009002 *(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)*

Significance: G Dec 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Perform Routine Operator Rounds Results in the Creation of Fire Hazards
The inspectors identified two examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V (Procedures), for the failure to adequately perform routine operator rounds in accordance with station procedures. Plant operators had failed to observe degraded material conditions (oil soaked insulation) and abnormal oil leakage onto the floor below Essential Chiller 22C, and stray material (oil absorbent pads) in between the cylinder heads of the standby Diesel Generators 11 and 13. The inspectors determined that both examples resulted in fire hazards. The licensee implemented corrective actions to remove the fire hazards and entered the concerns into their corrective action program as Condition Reports 08-18903, 08-19296, 09-184, and 09-195.

The finding was more than minor because it was similar to example 4.f of Manual Chapter 0612, Appendix E, "Examples of Minor Issues," because both conditions created a fire hazard. The inspectors used NRC Inspection Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” to determine that the finding was of very low safety significance because the deficiency resulted in a low degradation rating that minimally impacted the plant combustible material controls program element of the fire prevention and administrative controls category. In addition, the finding had a Problem Identification and Resolution crosscutting aspect (corrective action program component), because operators failed to implement a corrective action program with a low threshold for identifying issues [P.1(a)].

Inspection Report# : 2008005 *(pdf)*

Significance: G Sep 27, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedures Resulted in Isolation of Majority of Fire Water
The inspectors reviewed a self-revealing noncited violation of Technical Specification 6.8.1.d for the failure to follow Procedure 0PGP03-ZF-0018, “Fire Protection System Operability Requirements,” Revision 14. As a result the licensee unintentionally isolated fire water to all of Unit 2 and a majority of Unit 1. The licensee entered this issue into the corrective action program for resolution.

The inspectors determined the finding was more than minor because it affected the mitigating systems cornerstone objective of ensuring the availability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using the fire protection significance determination process. The finding screened to a Phase 2 based on a high degradation rating and the number of areas impacted. The Phase 2 screening resulted in a high degradation rating based on the number of areas impacted. Consequently, the licensee performed a detailed probabilistic risk assessment analysis using their fire probabilistic risk assessment model, and determined that the overall increase in core damage probability and in large early release probability was of very low safety significance. The regional senior reactor analyst compared the licensee’s results with the NRC’s review of the individual plant examination of external events and concluded that the results were essentially identical. Based on these results, the inspectors determined that the risk significance of the event was of very low safety significance. Additionally, the

inspectors determined that the issue had crosscutting aspects associated with the work control component of human performance, in that, the licensee did not incorporate the impact of work on different job activities, the need for work groups to stay apprised of work status, operational impact of work activities, and other plant conditions that may affect the work activity [H.3(b)].
Inspection Report# : 2008004 *(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 Aug 14, 2008
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team reviewed approximately 360 condition reports, work orders, associated root and apparent cause evaluations, and other supporting documentation to assess the problem identification and resolution process. The team also performed a five year review of the essential cooling water system to determine whether problems were being effectively addressed. As a result of these reviews, the team concluded that the licensee was generally effective in identifying, evaluating, and ultimately 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 reviewed a sample of condition reports that involved operability issues to assess the adequacy and timeliness of the operability assessment process. The team noted that problems with operability review have existed throughout the period. Specifically, the station has repeatedly documented operability review issues in condition reports, in audits, and during Executive Oversight Review Board reports. However, changes to address these issues were not implemented until April 2008, and insufficient time has elapsed to adequately evaluate the effectiveness of these changes.

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. The team noted improvement in the use of internal and external operating experience during the planning of work evolutions. The team also determined that the licensee was evaluating industry operating experience when performing root cause and apparent cause evaluations.

Although quality assurance audits have been effective in identifying substantive issues and areas for improvement, some of the associated actions have not been acted upon in a timely manner. Other self-assessment activities were narrowly focused and often did not identify any insightful issues concerning performance which limited the value of the assessment.

Overall, the team concluded that there was a safety conscious work environment in place at South Texas Project. In particular, the team also determined that a number of improvements have been implemented to address communication challenges and cultural issues related to the security organization. Despite these improvements, the team did encounter instances where personnel did not feel that their concerns were being adequately addressed. Subsequent to the completion of extensive safety conscious work environment interviews involving 60 personnel, the team determined that many of the individuals questioned lacked confidence in the effectiveness of the Employee Concerns Program.

Inspection Report# : 2008009 *(pdf)*

Last modified : August 31, 2009

South Texas 2
3Q/2009 Plant Inspection Findings

Initiating Events

Mitigating Systems

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
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
Failure to Assess and Manage Outage Maintenance Risk Activities Resulting in the Loss of the Residual Heat Removal System
The inspectors reviewed a self-revealing noncited violation of 10 CFR 50.65(a)(4), for the failure to assess and manage risk from an emergent maintenance work activity on the solid state protection system during the Unit 2 refueling outage that resulted in a loss of the residual heat removal system. Specifically, on October 25, 2008, the licensee planned an emergent maintenance activity to replace a general logic card on the solid state protection system without adequately assessing the risk to the plant. Consequently, when the logic card was removed, the low steam pressure safety injection actuation signal became unblocked and resulted in the loss of the operating residual heat removal system pumps. The licensee's immediate corrective action was to restore the residual heat removal system to operation and enter the issue into their corrective action program.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and adversely affected the cornerstone objective of availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Phase 1 screening criteria of Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," Attachment 1, Checklist 4, the finding screened to a Phase 2 quantitative analysis because no residual heat removal loops were in operation. The finding was determined to be of very low safety significance because the Phase 2 screening by the senior reactor analyst concluded that the conditional core damage probability from this event was approximately 1E-08. In addition, this finding had human performance crosscutting aspects associated with decision making [H.1(a)] because the licensee failed to make risk-significant decisions using a systematic process to ensure safety is maintained, and did not formally define authority and roles for key personnel responsible for implementing these risk-significant decisions.

Inspection Report# : 2009002 *(pdf)*

Significance: G Apr 09, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Reportability Misses an Inoperable Component Cooling Water Train
The inspectors identified a noncited violation of Technical Specification 3.7.3 for an inadequate reportability review on the Train A component cooling water low-level actuation switch which failed during surveillance testing. 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. The inspectors continued to ask questions related to the event and discovered that the last time the switch was manipulated was January 22, 2008, during a calibration procedure. After the inspectors questioned the reportability, engineering reviewed it and determined that the calibration procedure did not have a functional check of the switch internal contacts before restoration. Engineering concluded that, as a result of the switch not being functionally checked after the calibration, that the wire must have become disconnected during the restoration section of the procedure. Consequently, from January 22, 2008 through October 16, 2008, the Train A component cooling water low-low level switch was inoperable and therefore reportable. The licensee performed a root cause of the event itself and an apparent cause for operations inappropriately applying time of discovery for the initial reportability review under Condition Reports 08-15541 and 08-19420, respectively.

The finding was more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern in that inadequate operability/reportability reviews could result in a degraded system being returned to service, and it affected the Mitigating Systems cornerstone attribute of human performance 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. In addition, this finding had Problem Identification and Resolution crosscutting aspects associated with the corrective action program [P.1(c)] because the licensee failed to thoroughly evaluate for operability and reportability

conditions adverse to quality.
Inspection Report# : 2009002 *(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)*

Significance: G Dec 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Perform Routine Operator Rounds Results in the Creation of Fire Hazards
The inspectors identified two examples of a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V (Procedures), for the failure to adequately perform routine operator rounds in accordance with station procedures. Plant operators had failed to observe degraded material conditions (oil soaked insulation) and abnormal oil leakage onto the floor below Essential Chiller 22C, and stray material (oil absorbent pads) in between the cylinder heads of the standby Diesel Generators 11 and 13. The inspectors determined that both examples resulted in fire hazards. The licensee implemented corrective actions to remove the fire hazards and entered the concerns into their corrective action program as Condition Reports 08-18903, 08-19296, 09-184, and 09-195.

The finding was more than minor because it was similar to example 4.f of Manual Chapter 0612, Appendix E, "Examples of Minor Issues," because both conditions created a fire hazard. The inspectors used NRC Inspection Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” to determine that the finding was of very low safety significance because the deficiency resulted in a low degradation rating that minimally impacted the plant combustible material controls program element of the fire prevention and administrative controls category. In addition, the finding had a Problem Identification and Resolution crosscutting aspect (corrective action program component), because operators failed to implement a corrective action program with a low threshold for identifying issues [P.1(a)].

Inspection Report# : 2008005 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jul 04, 2009
Identified By: NRC
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

Last modified : December 10, 2009

South Texas 2
4Q/2009 Plant Inspection Findings

Initiating Events

Mitigating Systems

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
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: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Assess and Manage Outage Maintenance Risk Activities Resulting in the Loss of the Residual Heat Removal System
The inspectors reviewed a self-revealing noncited violation of 10 CFR 50.65(a)(4), for the failure to assess and manage risk from an emergent maintenance work activity on the solid state protection system during the Unit 2 refueling outage that resulted in a loss of the residual heat removal system. Specifically, on October 25, 2008, the licensee planned an emergent maintenance activity to replace a general logic card on the solid state protection system without adequately assessing the risk to the plant. Consequently, when the logic card was removed, the low steam pressure safety injection actuation signal became unblocked and resulted in the loss of the operating residual heat removal system pumps. The licensee's immediate corrective action was to restore the residual heat removal system to operation and enter the issue into their corrective action program.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and adversely affected the cornerstone objective of availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Phase 1 screening criteria of Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," Attachment 1, Checklist 4, the finding screened to a Phase 2 quantitative analysis because no residual heat removal loops were in operation. The finding was determined to be of very low safety significance because the Phase 2 screening by the senior reactor analyst concluded that the conditional core damage probability from this event was approximately 1E-08. In addition, this finding had human performance crosscutting aspects associated with decision making [H.1(a)] because the licensee failed to make risk-significant decisions using a systematic process to ensure safety is maintained, and did not formally define authority and roles for key personnel responsible for implementing these risk-significant decisions.

Inspection Report# : 2009002 *(pdf)*

Significance: G Apr 09, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Reportability Misses an Inoperable Component Cooling Water Train
The inspectors identified a noncited violation of Technical Specification 3.7.3 for an inadequate reportability review on the Train A component cooling water low-level actuation switch which failed during surveillance testing. 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. The inspectors continued to ask questions related to the event and discovered that the last time the switch was manipulated was January 22, 2008, during a calibration procedure. After the inspectors questioned the reportability, engineering reviewed it and determined that the calibration procedure did not have a functional check of the switch internal contacts before restoration. Engineering concluded that, as a result of the switch not being functionally checked after the calibration, that the wire must have become disconnected during the restoration section of the procedure. Consequently, from January 22, 2008 through October 16, 2008, the Train A component cooling water low-low level switch was inoperable and therefore reportable. The licensee performed a root cause of the event itself and an apparent cause for operations inappropriately applying time of discovery for the initial reportability review under Condition Reports 08-15541 and 08-19420, respectively.

The finding was more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern in that inadequate operability/reportability reviews could result in a degraded system being returned to service, and it affected the Mitigating Systems cornerstone attribute of human performance 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. In addition, this finding had Problem Identification and Resolution crosscutting aspects associated with the corrective action program [P.1(c)] because the licensee failed to thoroughly evaluate for operability and reportability

conditions adverse to quality.
Inspection Report# : 2009002 *(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

Last modified : March 01, 2010

South Texas 2
1Q/2010 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Maintenance Procedure Degrades Cold Overpressure Mitigation System
The inspectors reviewed a self-revealing noncited violation of 10CFR Part 50, Appendix B, Criterion V, "instructions, Procedures, and Drawings," for an inadequate maintenance procedure that failed to describe the steps for correctly restoring auxiliary process Cabinet D1. On September 21, 2009, instrumentation and controls personnel performed maintenance on auxiliary process Cabinet D1 but failed to reset the processor during restoration. As a result, the reactor coolant system temperature data output to the cold overpressure mitigation system was set to zero. On September 26, 2009, when Unit 2 was in the process of heating up in Mode 4, the automatic function of the cold overpressure mitigation system prematurely initiated and caused alarms in the control room. The actual conditions did not warrant overpressure mitigation; therefore, operations personnel isolated the pressurizer train A power operated relief valve to prevent the potential rapid depressurization of the reactor coolant system. The licensee captured this issue as Condition Report 09-14961.

The finding was more than minor because it affected the procedure quality attribute of the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations because it caused the operators to change the plant configuration by isolating one of two pressurizer power operated relief valves to prevent an initiating event. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," this finding screened to a Phase 2 analysis because it was a primary system loss-of-coolant accident initiator contributor that assuming worst case degradation would have resulted in exceeding the technical specification limit for reactor coolant system leakage. The Phase 2 analysis identified that the most significant contribution to risk was a potential failure of the pressurizer power operated relief valve to open. Since the potential failure of the pressurizer power operated relief valve to open did not exist for greater than 3 days and the redundant power operated relief valve was unaffected, the finding was determined to be of very low safety significance. In addition, this finding had a crosscutting aspect associated with problem identification and resolution because the licensee did not incorporate operating experience, including the vendor recommendations for restoration of auxiliary process cabinets, into plant procedures to support plant safety [P.2(b)].
Inspection Report# : 2009005 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedures Results in Repetitive Malfunction of Electrical Auxiliary Building Air Handling Unit 21B Smoke Purge Inlet Damper
The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedures and enter a malfunction of the Unit 2 smoke purge damper 21B into the corrective action program. Specifically, the licensee failed to write a condition report in accordance with Procedure 0PGP03-ZX-0002, "Condition Reporting Process," when the damper failed to stroke open or closed as expected. Maintenance personnel were able to close the damper; however, the licensee missed the opportunity to identify and correct a material deficiency, which resulted in another failure during subsequent testing because the condition was not entered into the

corrective action program.

The finding was more than minor because, if left uncorrected, it could have led to a more significant safety concern because incomplete and inaccurate corrective actions failed to ensure the damper would have actuated to the correct position when required. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding had very low safety significance because it was not a design or qualification deficiency, it did not result in the loss of system safety function, it did not result in the loss of safety function of a single train greater than its technical specification allowed outage time, it did not represent an actual loss of safety function of one or more nontechnical specification trains of equipment designated as risk significant for greater than 24 hours, and it was not risk significant due to a seismic, flooding, or severe weather initiating event. In addition, the finding had Problem Identification and Resolution crosscutting aspects associated with the corrective action program, in that, the licensee failed to accurately identify the smoke purge damper material deficiency in a timely manner because maintenance personnel did not have a low threshold for entering this issue into the corrective action program (P.1(a)].
Inspection Report# : 2010002 *(pdf)*

Significance: G Mar 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Engineering Evaluation Causes an Inoperable Essential Chilled Water Train
The inspectors reviewed a self-revealing noncited violation of Technical Specification 3.7.14 because the licensee had one independent loop of essential chilled water inoperable for longer than the allowed outage time of 7 days. Specifically, the licensee performed an inadequate engineering evaluation that failed to determine the effects of changing the operation of the essential cooling water system on the essential chillers and in turn the essential chilled water system. On July 9, 2009, essential chiller 22A tripped due to low oil pressure during the start up sequence. As a result, the corresponding essential chilled water train was declared inoperable. The licensee's initial corrective action was to place idle time restrictions on all the essential chillers until corrective maintenance items could be performed. The licensee entered this event into the corrective action program as Condition Report 09-10502.

The finding was more than minor because 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. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding screened to a Phase 2 analysis because it resulted in the loss of the safety function of a single train for greater than its technical specification allowed outage time. A Region IV senior reactor analyst performed a Phase 2 significance determination and found that the finding was potentially greater than Green. The analyst performed a bounding Phase 3 significance determination and found the finding to be of very low safety significance. The dominant core damage sequences included: 1) steam line break outside of containment with a common cause failure of the other chillers, and 2) steam generator tube rupture with a common cause failure of the steam generator power operated relief valves. Remaining mitigation equipment that helped to limit the significance included the remaining functional chillers 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 procedures were adequate to maintain long term plant safety by maintaining design margins [H.2(a)].
Inspection Report# : 2010002 *(pdf)*

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:  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:  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: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Assess and Manage Outage Maintenance Risk Activities Resulting in the Loss of the Residual Heat Removal System
The inspectors reviewed a self-revealing noncited violation of 10 CFR 50.65(a)(4), for the failure to assess and manage risk from an emergent maintenance work activity on the solid state protection system during the Unit 2 refueling outage that resulted in a loss of the residual heat removal system. Specifically, on October 25, 2008, the licensee planned an emergent maintenance activity to replace a general logic card on the solid state protection system without adequately assessing the risk to the plant. Consequently, when the logic card was removed, the low steam pressure safety injection actuation signal became unblocked and resulted in the loss of the operating residual heat removal system pumps. The licensee's immediate corrective action was to restore the residual heat removal system to operation and enter the issue into their corrective action program.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and adversely affected the cornerstone objective of availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Phase 1 screening criteria of Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," Attachment 1, Checklist 4, the finding screened to a Phase 2 quantitative analysis because no residual heat removal loops were in operation. The finding was determined to be of very low safety significance because the Phase 2 screening by the senior reactor analyst concluded that the conditional core damage probability from this event was approximately 1E-08. In addition, this finding had human performance crosscutting aspects associated with decision making [H.1(a)] because the licensee failed to make risk-significant decisions using a systematic process to ensure safety is maintained, and did not formally define authority and roles for key personnel responsible for implementing these risk-significant decisions.

Inspection Report# : 2009002 *(pdf)*

Significance: G Apr 09, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Reportability Misses an Inoperable Component Cooling Water Train
The inspectors identified a noncited violation of Technical Specification 3.7.3 for an inadequate reportability review on the Train A component cooling water low-level actuation switch which failed during surveillance testing. 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. The inspectors continued to ask questions related to the event and discovered that the last time the switch was manipulated was January 22, 2008, during a calibration procedure. After the inspectors questioned the reportability, engineering reviewed it and determined that the calibration procedure did not have a functional check of the switch internal contacts before restoration. Engineering concluded that, as a result of the switch not being functionally checked after the calibration, that the wire must have become disconnected during the restoration section of the procedure. Consequently, from January 22, 2008 through October 16, 2008, the Train A component cooling water low-low level switch was inoperable and therefore reportable. The licensee performed a root cause of the event itself and an apparent cause for operations inappropriately applying time of discovery for the initial reportability review under Condition Reports 08-15541 and 08-19420, respectively.

The finding was more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern in that inadequate operability/reportability reviews could result in a degraded system being returned to service, and it affected the Mitigating Systems cornerstone attribute of human performance 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. In addition, this finding had Problem Identification and Resolution crosscutting aspects associated with the corrective action program [P.1(c)] because the licensee failed to thoroughly evaluate for operability and reportability conditions adverse to quality.
Inspection Report# : 2009002 *(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

Last modified : May 26, 2010

South Texas 2
2Q/2010 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Maintenance Procedure Degrades Cold Overpressure Mitigation System
The inspectors reviewed a self-revealing noncited violation of 10CFR Part 50, Appendix B, Criterion V, "instructions, Procedures, and Drawings," for an inadequate maintenance procedure that failed to describe the steps for correctly restoring auxiliary process Cabinet D1. On September 21, 2009, instrumentation and controls personnel performed maintenance on auxiliary process Cabinet D1 but failed to reset the processor during restoration. As a result, the reactor coolant system temperature data output to the cold overpressure mitigation system was set to zero. On September 26, 2009, when Unit 2 was in the process of heating up in Mode 4, the automatic function of the cold overpressure mitigation system prematurely initiated and caused alarms in the control room. The actual conditions did not warrant overpressure mitigation; therefore, operations personnel isolated the pressurizer train A power operated relief valve to prevent the potential rapid depressurization of the reactor coolant system. The licensee captured this issue as Condition Report 09-14961.

The finding was more than minor because it affected the procedure quality attribute of the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations because it caused the operators to change the plant configuration by isolating one of two pressurizer power operated relief valves to prevent an initiating event. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," this finding screened to a Phase 2 analysis because it was a primary system loss-of-coolant accident initiator contributor that assuming worst case degradation would have resulted in exceeding the technical specification limit for reactor coolant system leakage. The Phase 2 analysis identified that the most significant contribution to risk was a potential failure of the pressurizer power operated relief valve to open. Since the potential failure of the pressurizer power operated relief valve to open did not exist for greater than 3 days and the redundant power operated relief valve was unaffected, the finding was determined to be of very low safety significance. In addition, this finding had a crosscutting aspect associated with problem identification and resolution because the licensee did not incorporate operating experience, including the vendor recommendations for restoration of auxiliary process cabinets, into plant procedures to support plant safety [P.2(b)].
Inspection Report# : 2009005 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedures Results in Repetitive Malfunction of Electrical Auxiliary Building Air Handling Unit 21B Smoke Purge Inlet Damper
The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedures and enter a malfunction of the Unit 2 smoke purge damper 21B into the corrective action program. Specifically, the licensee failed to write a condition report in accordance with Procedure 0PGP03-ZX-0002, "Condition Reporting Process," when the damper failed to stroke open or closed as expected. Maintenance personnel were able to close the damper; however, the licensee missed the opportunity to identify and correct a material deficiency, which resulted in another failure during subsequent testing because the condition was not entered into the

corrective action program.

The finding was more than minor because, if left uncorrected, it could have led to a more significant safety concern because incomplete and inaccurate corrective actions failed to ensure the damper would have actuated to the correct position when required. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding had very low safety significance because it was not a design or qualification deficiency, it did not result in the loss of system safety function, it did not result in the loss of safety function of a single train greater than its technical specification allowed outage time, it did not represent an actual loss of safety function of one or more nontechnical specification trains of equipment designated as risk significant for greater than 24 hours, and it was not risk significant due to a seismic, flooding, or severe weather initiating event. In addition, the finding had Problem Identification and Resolution crosscutting aspects associated with the corrective action program, in that, the licensee failed to accurately identify the smoke purge damper material deficiency in a timely manner because maintenance personnel did not have a low threshold for entering this issue into the corrective action program (P.1(a)].
Inspection Report# : 2010002 *(pdf)*

Significance: G Mar 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Engineering Evaluation Causes an Inoperable Essential Chilled Water Train
The inspectors reviewed a self-revealing noncited violation of Technical Specification 3.7.14 because the licensee had one independent loop of essential chilled water inoperable for longer than the allowed outage time of 7 days. Specifically, the licensee performed an inadequate engineering evaluation that failed to determine the effects of changing the operation of the essential cooling water system on the essential chillers and in turn the essential chilled water system. On July 9, 2009, essential chiller 22A tripped due to low oil pressure during the start up sequence. As a result, the corresponding essential chilled water train was declared inoperable. The licensee's initial corrective action was to place idle time restrictions on all the essential chillers until corrective maintenance items could be performed. The licensee entered this event into the corrective action program as Condition Report 09-10502.

The finding was more than minor because 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. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding screened to a Phase 2 analysis because it resulted in the loss of the safety function of a single train for greater than its technical specification allowed outage time. A Region IV senior reactor analyst performed a Phase 2 significance determination and found that the finding was potentially greater than Green. The analyst performed a bounding Phase 3 significance determination and found the finding to be of very low safety significance. The dominant core damage sequences included: 1) steam line break outside of containment with a common cause failure of the other chillers, and 2) steam generator tube rupture with a common cause failure of the steam generator power operated relief valves. Remaining mitigation equipment that helped to limit the significance included the remaining functional chillers 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 procedures were adequate to maintain long term plant safety by maintaining design margins [H.2(a)].
Inspection Report# : 2010002 *(pdf)*

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:  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:  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)*

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

Last modified : September 02, 2010

South Texas 2
3Q/2010 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Maintenance Procedure Degrades Cold Overpressure Mitigation System
The inspectors reviewed a self-revealing noncited violation of 10CFR Part 50, Appendix B, Criterion V, "instructions, Procedures, and Drawings," for an inadequate maintenance procedure that failed to describe the steps for correctly restoring auxiliary process Cabinet D1. On September 21, 2009, instrumentation and controls personnel performed maintenance on auxiliary process Cabinet D1 but failed to reset the processor during restoration. As a result, the reactor coolant system temperature data output to the cold overpressure mitigation system was set to zero. On September 26, 2009, when Unit 2 was in the process of heating up in Mode 4, the automatic function of the cold overpressure mitigation system prematurely initiated and caused alarms in the control room. The actual conditions did not warrant overpressure mitigation; therefore, operations personnel isolated the pressurizer train A power operated relief valve to prevent the potential rapid depressurization of the reactor coolant system. The licensee captured this issue as Condition Report 09-14961.

The finding was more than minor because it affected the procedure quality attribute of the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations because it caused the operators to change the plant configuration by isolating one of two pressurizer power operated relief valves to prevent an initiating event. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," this finding screened to a Phase 2 analysis because it was a primary system loss-of-coolant accident initiator contributor that assuming worst case degradation would have resulted in exceeding the technical specification limit for reactor coolant system leakage. The Phase 2 analysis identified that the most significant contribution to risk was a potential failure of the pressurizer power operated relief valve to open. Since the potential failure of the pressurizer power operated relief valve to open did not exist for greater than 3 days and the redundant power operated relief valve was unaffected, the finding was determined to be of very low safety significance. In addition, this finding had a crosscutting aspect associated with problem identification and resolution because the licensee did not incorporate operating experience, including the vendor recommendations for restoration of auxiliary process cabinets, into plant procedures to support plant safety [P.2(b)].
Inspection Report# : 2009005 *(pdf)*

Mitigating Systems

Significance: G 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: G 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 0PGP03-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)*

Significance: SL-IV Jun 30, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to submit a Licensee Event Report for an Unanalyzed Condition Associated with Fire Water
The inspectors identified a Severity Level IV noncited violation of 10 CFR 50.73(a)(1) for not submitting the required licensee event reports within 60 days after discovery that the fire water supply header was isolated to fire areas in Unit 2 where the fire hazard analysis credits water suppression for the achievement of safe shutdown in the event of a fire. Following prompting by the inspectors, the licensee determined that the impact to the safe shutdown equipment should have been reported as an unanalyzed condition per 10 CFR 50.73(a)(2)(ii)(B). As a corrective action the licensee established a reportability review board, plans to conduct training, and plans to update station procedures to better ensure events are reviewed against all reporting requirements. This issue was entered into the licensee's corrective action program as Condition Reports 09-20106 and 09-20125.

This finding is more than minor because the NRC relies on licensees to identify and report conditions or events meeting the criteria specified in the regulations in order to perform its regulatory function. Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. Traditional enforcement violations are not screened for crosscutting aspects. The inspectors concluded that the failure to make a required licensee event report was a Severity Level IV violation using Section IV.A.3 and Supplement I Paragraph D.4, of the NRC Enforcement Policy, dated March 16, 2005.

Inspection Report# : 2010003 *(pdf)*

Significance: G Jun 30, 2010
Identified By: NRC
Item Type: FIN Finding
Inadequate Design Change Review of AMSAC
The inspectors identified a Green finding for the failure to identify specific design parameters and the impact of changes on the anticipated transient without scram mitigation system actuation circuitry (AMSAC) in accordance with station Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 6. In 1999, the licensee performed a design change review to replace steam generators in Unit 1 and 2. In conjunction with steam generator replacement, the licensee switched from using Logic 2 (low main feedwater flow) of the generic AMSAC design to Logic 1 (low steam generator water level) of the generic AMSAC design. However, the licensee failed to identify and evaluate the impacts to the C-20 permissive disarming time delay setting, which was required to be changed from 260 seconds to 360 seconds for Logic 1 (low steam generator water level). The licensee's corrective action plan is to update the C-20 permissive disarming time delay setting with a site specific value. This issue was entered into the licensee's corrective action program as Condition Report 10-3630.

The finding is more than minor because the reduced time delay may have affected the availability of AMSAC to perform its function to initiate auxiliary feedwater when necessary and therefore affected the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Phase 1 of the Significance Determination Process as described in Inspection Manual Chapter 0609, Attachment 4, dated January 10, 2008, the finding was determined to be of very low safety significance because it was a design deficiency that did not result in the loss of functionality. The finding did not have any crosscutting aspects because it occurred more than three years ago and is not indicative of current licensee performance in that the licensee has significantly improved their design review process since the performance deficiency occurred.

Inspection Report# : 2010003 *(pdf)*

Significance: G Mar 31, 2010
Identified By: NRC

Item Type: NCV NonCited Violation
Failure to Follow Procedures Results in Repetitive Malfunction of Electrical Auxiliary Building Air Handling Unit 21B Smoke Purge Inlet Damper
The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedures and enter a malfunction of the Unit 2 smoke purge damper 21B into the corrective action program. Specifically, the licensee failed to write a condition report in accordance with Procedure 0PGP03-ZX-0002, "Condition Reporting Process," when the damper failed to stroke open or closed as expected. Maintenance personnel were able to close the damper; however, the licensee missed the opportunity to identify and correct a material deficiency, which resulted in another failure during subsequent testing because the condition was not entered into the corrective action program.

The finding was more than minor because, if left uncorrected, it could have led to a more significant safety concern because incomplete and inaccurate corrective actions failed to ensure the damper would have actuated to the correct position when required. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding had very low safety significance because it was not a design or qualification deficiency, it did not result in the loss of system safety function, it did not result in the loss of safety function of a single train greater than its technical specification allowed outage time, it did not represent an actual loss of safety function of one or more nontechnical specification trains of equipment designated as risk significant for greater than 24 hours, and it was not risk significant due to a seismic, flooding, or severe weather initiating event. In addition, the finding had Problem Identification and Resolution crosscutting aspects associated with the corrective action program, in that, the licensee failed to accurately identify the smoke purge damper material deficiency in a timely manner because maintenance personnel did not have a low threshold for entering this issue into the corrective action program (P.1(a)].
Inspection Report# : 2010002 *(pdf)*

Significance: G Mar 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Engineering Evaluation Causes an Inoperable Essential Chilled Water Train
The inspectors reviewed a self-revealing noncited violation of Technical Specification 3.7.14 because the licensee had one independent loop of essential chilled water inoperable for longer than the allowed outage time of 7 days. Specifically, the licensee performed an inadequate engineering evaluation that failed to determine the effects of changing the operation of the essential cooling water system on the essential chillers and in turn the essential chilled water system. On July 9, 2009, essential chiller 22A tripped due to low oil pressure during the start up sequence. As a result, the corresponding essential chilled water train was declared inoperable. The licensee's initial corrective action was to place idle time restrictions on all the essential chillers until corrective maintenance items could be performed. The licensee entered this event into the corrective action program as Condition Report 09-10502.

The finding was more than minor because 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. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding screened to a Phase 2 analysis because it resulted in the loss of the safety function of a single train for greater than its technical specification allowed outage time. A Region IV senior reactor analyst performed a Phase 2 significance determination and found that the finding was potentially greater than Green. The analyst performed a bounding Phase 3 significance determination and found the finding to be of very low safety significance. The dominant core damage sequences included: 1) steam line break outside of containment with a common cause failure of the other chillers, and 2) steam generator tube rupture with a common cause failure of the steam generator power operated relief valves. Remaining mitigation equipment that helped to limit the significance included the remaining functional chillers 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 procedures were adequate to maintain long term plant safety by maintaining design margins [H.2(a)].
Inspection Report# : 2010002 *(pdf)*

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)*

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

Last modified : November 29, 2010

South Texas 2
4Q/2010 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G 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: G 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: G 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: G 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: G 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 0PGP03-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)*

Significance: SL-IV Jun 30, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to submit a Licensee Event Report for an Unanalyzed Condition Associated with Fire Water
The inspectors identified a Severity Level IV noncited violation of 10 CFR 50.73(a)(1) for not submitting the required licensee event reports within 60 days after discovery that the fire water supply header was isolated to fire areas in Unit 2 where the fire hazard analysis credits water suppression for the achievement of safe shutdown in the event of a fire. Following prompting by the inspectors, the licensee determined that the impact to the safe shutdown equipment should have been reported as an unanalyzed condition per 10 CFR 50.73(a)(2)(ii)(B). As a corrective action the licensee established a reportability review board, plans to conduct training, and plans to update station procedures to better ensure events are reviewed against all reporting requirements. This issue was entered into the licensee's corrective action program as Condition Reports 09-20106 and 09-20125.

This finding is more than minor because the NRC relies on licensees to identify and report conditions or events meeting the criteria specified in the regulations in order to perform its regulatory function. Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. Traditional enforcement violations are not screened for crosscutting aspects. The inspectors concluded that the failure to make a required licensee event report was a Severity Level IV violation using Section IV.A.3 and Supplement I Paragraph D.4, of the NRC Enforcement Policy, dated March 16, 2005.

Inspection Report# : 2010003 *(pdf)*

Significance: G Jun 30, 2010
Identified By: NRC
Item Type: FIN Finding
Inadequate Design Change Review of AMSAC
The inspectors identified a Green finding for the failure to identify specific design parameters and the impact of changes on the anticipated transient without scram mitigation system actuation circuitry (AMSAC) in accordance with station Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 6. In 1999, the licensee performed a design change review to replace steam generators in Unit 1 and 2. In conjunction with steam generator replacement, the licensee switched from using Logic 2 (low main feedwater flow) of the generic AMSAC design to Logic 1 (low steam generator water level) of the generic AMSAC design. However, the licensee failed to identify and evaluate the impacts to the C-20 permissive disarming time delay setting, which was required to be changed from 260 seconds to 360 seconds for Logic 1 (low steam generator water level). The licensee's corrective action plan is to update the C-20 permissive disarming time delay setting with a site specific value. This issue was entered into the licensee's corrective action program as Condition Report 10-3630.

The finding is more than minor because the reduced time delay may have affected the availability of AMSAC to perform its function to initiate auxiliary feedwater when necessary and therefore affected the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Phase 1 of the Significance Determination Process as described in Inspection Manual Chapter 0609, Attachment 4, dated January 10, 2008, the finding was determined to be of very low safety significance because it was a design deficiency that did not result in the loss of functionality. The finding did not have any crosscutting aspects because it occurred more than three years ago and is not indicative of current licensee performance in that the licensee has significantly improved their design review process since the performance deficiency occurred.

Inspection Report# : 2010003 *(pdf)*

Significance: G Mar 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Procedures Results in Repetitive Malfunction of Electrical Auxiliary Building Air Handling Unit 21B Smoke Purge Inlet Damper
The inspectors reviewed a self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedures and enter a malfunction of the Unit 2 smoke purge damper 21B into the corrective action program. Specifically, the licensee failed to write a condition report in accordance with Procedure 0PGP03-ZX-0002, "Condition Reporting Process," when the damper failed to stroke open or closed as expected. Maintenance personnel were able to close the damper; however, the licensee missed the opportunity to identify and correct a material deficiency, which resulted in another failure during subsequent testing because the condition was not entered into the corrective action program.

The finding was more than minor because, if left uncorrected, it could have led to a more significant safety concern because incomplete and inaccurate corrective actions failed to ensure the damper would have actuated to the correct position when required. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding had very low safety significance because it was not a design or qualification deficiency, it did not result in the loss of system safety function, it did not result in the loss of safety function of a single train greater than its technical specification allowed outage time, it did not represent an actual loss of safety function of one or more nontechnical specification trains of equipment designated as risk significant for greater than 24 hours, and it was not risk significant due to a seismic, flooding, or severe weather initiating event. In addition, the finding had Problem Identification and Resolution crosscutting aspects associated with the corrective action program, in that, the licensee failed to accurately identify the smoke purge damper material deficiency in a timely manner because maintenance personnel did not have a low threshold for entering this issue into the corrective action program (P.1(a)].
Inspection Report# : 2010002 *(pdf)*

Significance: G Mar 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Engineering Evaluation Causes an Inoperable Essential Chilled Water Train
The inspectors reviewed a self-revealing noncited violation of Technical Specification 3.7.14 because the licensee had one independent loop of essential chilled water inoperable for longer than the allowed outage time of 7 days. Specifically, the licensee performed an inadequate engineering evaluation that failed to determine the effects of changing the operation of the essential cooling water system on the essential chillers and in turn the essential chilled water system. On July 9, 2009, essential chiller 22A tripped due to low oil pressure during the start up sequence. As a result, the corresponding essential chilled water train was declared inoperable. The licensee's initial corrective action was to place idle time restrictions on all the essential chillers until corrective maintenance items could be performed. The licensee entered this event into the corrective action program as Condition Report 09-10502.

The finding was more than minor because 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. Using the Significance Determination Process Phase 1 worksheets from Inspection Manual Chapter 0609, the finding screened to a Phase 2 analysis because it resulted in the loss of the safety function of a single train for greater than its technical specification allowed outage time. A Region IV senior reactor analyst performed a Phase 2 significance determination and found that the finding was potentially greater than Green. The analyst performed a bounding Phase 3 significance determination and found the finding to be of very low safety significance. The dominant core damage sequences included: 1) steam line break outside of containment with a common cause failure of the other chillers, and 2) steam generator tube rupture with a common cause failure of the steam generator power operated relief valves. Remaining mitigation equipment that helped to limit the significance included the remaining functional chillers 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 procedures were adequate to maintain long term plant safety by maintaining design margins [H.2(a)].
Inspection Report# : 2010002 *(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

Last modified : March 03, 2011

South Texas 2
1Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G 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 0POP11-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: G 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 0PGP03-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 0PGP03-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)].

Inspection Report# : 2010007 *(pdf)*

Significance: G 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: G 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 suctions 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 suctions 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.

Inspection Report# : 2010007 *(pdf)*

Significance: G 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 0POP02-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)].

Inspection Report# : 2010007 *(pdf)*

Significance: G 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: G 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: G 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: G 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: G 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 0PGP03-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)*

Significance: SL-IV Jun 30, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to submit a Licensee Event Report for an Unanalyzed Condition Associated with Fire Water
The inspectors identified a Severity Level IV noncited violation of 10 CFR 50.73(a)(1) for not submitting the required licensee event reports within 60 days after discovery that the fire water supply header was isolated to fire areas in Unit 2 where the fire hazard analysis credits water suppression for the achievement of safe shutdown in the event of a fire.

Following prompting by the inspectors, the licensee determined that the impact to the safe shutdown equipment should have been reported as an unanalyzed condition per 10 CFR 50.73(a)(2)(ii)(B). As a corrective action the licensee established a reportability review board, plans to conduct training, and plans to update station procedures to better ensure events are reviewed against all reporting requirements. This issue was entered into the licensee's corrective action program as Condition Reports 09-20106 and 09-20125.

This finding is more than minor because the NRC relies on licensees to identify and report conditions or events meeting the criteria specified in the regulations in order to perform its regulatory function. Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. Traditional enforcement violations are not screened for crosscutting aspects. The inspectors concluded that the failure to make a required licensee event report was a Severity Level IV violation using Section IV.A.3 and Supplement I Paragraph D.4, of the NRC Enforcement Policy, dated March 16, 2005.

Inspection Report# : 2010003 *(pdf)*

Significance: G Jun 30, 2010
Identified By: NRC
Item Type: FIN Finding
Inadequate Design Change Review of AMSAC
The inspectors identified a Green finding for the failure to identify specific design parameters and the impact of changes on the anticipated transient without scram mitigation system actuation circuitry (AMSAC) in accordance with station Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 6. In 1999, the licensee performed a design change review to replace steam generators in Unit 1 and 2. In conjunction with steam generator replacement, the licensee switched from using Logic 2 (low main feedwater flow) of the generic AMSAC design to Logic 1 (low steam generator water level) of the generic AMSAC design. However, the licensee failed to identify and evaluate the impacts to the C-20 permissive disarming time delay setting, which was required to be changed from 260 seconds to 360 seconds for Logic 1 (low steam generator water level). The licensee's corrective action plan is to update the C-20 permissive disarming time delay setting with a site specific value. This issue was entered into the licensee's corrective action program as Condition Report 10-3630.

The finding is more than minor because the reduced time delay may have affected the availability of AMSAC to perform its function to initiate auxiliary feedwater when necessary and therefore affected the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Phase 1 of the Significance Determination Process as described in Inspection Manual Chapter 0609, Attachment 4, dated January 10, 2008, the finding was determined to be of very low safety significance because it was a design deficiency that did not result in the loss of functionality. The finding did not have any crosscutting aspects because it occurred more than three years ago and is not indicative of current licensee performance in that the licensee has significantly improved their design review process since the performance deficiency occurred.

Inspection Report# : 2010003 *(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 : June 07, 2011

South Texas 2
2Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G 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 0PGP03-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: G 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 0POP11-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: G 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 0PGP03-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 0PGP03-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)].

Inspection Report# : 2010007 *(pdf)*

Significance: G 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: G 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 suctions 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 suctions 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.

Inspection Report# : 2010007 *(pdf)*

Significance: G 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 0POP02-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)].

Inspection Report# : 2010007 *(pdf)*

Significance: G 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: G 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: G 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: G 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: G 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 0PGP03-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

South Texas 2
3Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions from an Inadequate Extent of Condition Review
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," for the failure to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the licensee did not promptly identify and correct improperly installed temperature switches. On October 28, 2010, the Unit 2 essential cooling water vent fan 21A failed because the control power fuse blew due to an unused uninsulated wire. The root cause investigation determined that the unused wire had been installed when the switch was replaced in February 2005. The extent of condition review identified that a total of 60 switches had been replaced, but only one additional switch was verified and it also had an unused uninsulated wire. After inspector questioning, the licensee inspected the 12 actuation switches and determined that only the Unit 2 essential cooling water vent fans for trains A and C were affected. The licensee's corrective actions included: performing an immediate and prompt operability, performing training with the maintenance personnel on the procedural requirements for unused wires, and scheduling the inspection of the 48 high/high temperature switches commensurate with risk significance.

This finding was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Design Control, Equipment Performance, and Human Performance and it affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The deficiency resulted in a potential inoperability of Unit 2 essential cooling water trains A and C since 2005. The senior resident inspector performed the initial significance determination for the essential cooling water issue using the NRC Inspection Manual Chapter 0609, Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The finding screened to a Phase 2 significance determination because it involved an actual loss of safety function of two single trains of equipment for greater than the technical specification allowed outage time. A Region IV senior reactor analyst attempted to perform a Phase 2 significance determination using the pre-solved worksheets, but the Phase 2 process was not well suited for this issue. Therefore, the senior reactor analyst performed a bounding Phase 3 significance determination and found the finding to be of very low safety significance. The dominant core damage sequence included: seismic initiated loss of offsite power, failure of the essential cooling water trains A and C, failure of the train B emergency diesel generator, and failure to recover the diesel or offsite power in 4 hours. The low frequency of seismic induced loss of offsite power events at South Texas Project and the unaffected train B essential cooling water train helped to mitigate the finding's significance. In addition, this finding had human performance cross-cutting aspects associated with decision-making, in that, the licensee failed to use conservative assumptions and verify the validity of the underlying assumptions [H.1(b)].
Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Corrective Action to Correct an Inadequate Procedure
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," for the failure to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the inspectors determined that operations had no instructions for manual control of the 4160 Vac load tap changing

transformers. Procedure 0POP02-AE-0002, “Transformer Normal Breaker and Switch Lineup,” was not revised providing these instructions. In December 2010, Unit 2 experienced a material issue with the load tap changer, which required operations to take manual control of the load tap changer without procedure guidance. Subsequently, the licensee issued an operation’s standing order to allow for manual operations, but did not revise the procedure. In May 2011, the licensee experienced another material condition issue with the Unit 2 load tap changer that required operations to take manual control of the load tap changer, but since the procedure was never revised, operations found themselves operating the plant outside of procedures again. Corrective actions included revising Procedure 0POP02-AE-0002, to include manual operation of the load tap changer, and training all the operations personnel on the new procedure.

This finding was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Design Control and Procedure Quality, and it affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The deficiency resulted in operations not having any guidance on how to control the Units 1 and 2 train B 4160 Vac transformer load tap changer to ensure that the bus remained within technical specification surveillance requirement voltage limits. 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 represent a loss of safety system 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 cross-cutting aspects associated with decision making, in that, the licensee failed to communicate decisions and the basis for decisions to personnel who have a need to know the information to perform work safely [H.1(c)].
Inspection Report# : 2011004 *(pdf)*

Significance: G Jul 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a noncited violation of License Condition 2.E for the failure to implement and maintain in effect all provisions of the approved fire protection program. Specifically, the team identified two examples of failure to implement timely corrective actions to correct conditions adverse to fire protection. The first example related to making Procedure 0POP04-ZO-0001, “Control Room Evacuation,” Revision 33, consistent with the post-fire safe shutdown analysis in order to ensure the actions met critical time requirements. The second example related to not correcting a condition that could disable all three fire pumps simultaneously as a result of fire damage.

Failure to implement timely corrective actions in two instances for conditions adverse to fire protection is a performance deficiency. Both examples of this finding are of greater than minor significance because they impacted the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (fire) to prevent undesirable consequences. A senior reactor analyst performed Phase 3 significance determination for both examples. The analyst calculated the risk associated with the first example for the actions taken outside the control room as 2.702E-7. For the second example, the analyst assumed that a fire in Fire Area 67 would damage the electrical control cables for all three fire pumps and require manually starting a fire pump at the fire pump house. However, it was determined that a delay in fire suppression because of the need to use a fire hose would not result in a plant transient, require evacuation of the control room, or result in damage to any systems and components required for post-fire safe shutdown. Therefore, the senior reactor analyst determined that both examples of this finding are of very low safety significance (Green). The licensee entered this deficiency into the corrective action program as Condition Record 11-10905.

These examples of the performance deficiency had a crosscutting aspect in the area of human performance associated with resources because the licensee did not ensure that resources assigned to correct these deficiencies were adequate to assure nuclear safety. Specifically, the licensee failed to ensure adequate design margins by (1) failing to ensure that operators could perform all necessary manual actions prior to exceeding the regulatory requirements and (2) failing to modify the control circuits for the fire pumps to protect them against fire damage [H.2(a)].

Inspection Report# : 2011006 *(pdf)*

Significance: G 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 0PGP03-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: G 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 0POP11-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: G 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 0PGP03-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 0PGP03-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)].

Inspection Report# : 2010007 *(pdf)*

Significance: G 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: G 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 suctions 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 suctions 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.

Inspection Report# : 2010007 *(pdf)*

Significance: G 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 0POP02-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)].

Inspection Report# : 2010007 *(pdf)*

Significance: G 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: G 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: G 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)*

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

Last modified : January 04, 2012

South Texas 2
4Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions from an Inadequate Extent of Condition Review
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," for the failure to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the licensee did not promptly identify and correct improperly installed temperature switches. On October 28, 2010, the Unit 2 essential cooling water vent fan 21A failed because the control power fuse blew due to an unused uninsulated wire. The root cause investigation determined that the unused wire had been installed when the switch was replaced in February 2005. The extent of condition review identified that a total of 60 switches had been replaced, but only one additional switch was verified and it also had an unused uninsulated wire. After inspector questioning, the licensee inspected the 12 actuation switches and determined that only the Unit 2 essential cooling water vent fans for trains A and C were affected. The licensee's corrective actions included: performing an immediate and prompt operability, performing training with the maintenance personnel on the procedural requirements for unused wires, and scheduling the inspection of the 48 high/high temperature switches commensurate with risk significance.

This finding was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Design Control, Equipment Performance, and Human Performance and it affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The deficiency resulted in a potential inoperability of Unit 2 essential cooling water trains A and C since 2005. The senior resident inspector performed the initial significance determination for the essential cooling water issue using the NRC Inspection Manual Chapter 0609, Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The finding screened to a Phase 2 significance determination because it involved an actual loss of safety function of two single trains of equipment for greater than the technical specification allowed outage time. A Region IV senior reactor analyst attempted to perform a Phase 2 significance determination using the pre-solved worksheets, but the Phase 2 process was not well suited for this issue. Therefore, the senior reactor analyst performed a bounding Phase 3 significance determination and found the finding to be of very low safety significance. The dominant core damage sequence included: seismic initiated loss of offsite power, failure of the essential cooling water trains A and C, failure of the train B emergency diesel generator, and failure to recover the diesel or offsite power in 4 hours. The low frequency of seismic induced loss of offsite power events at South Texas Project and the unaffected train B essential cooling water train helped to mitigate the finding's significance. In addition, this finding had human performance cross-cutting aspects associated with decision-making, in that, the licensee failed to use conservative assumptions and verify the validity of the underlying assumptions [H.1(b)].
Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Corrective Action to Correct an Inadequate Procedure
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," for the failure to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the inspectors determined that operations had no instructions for manual control of the 4160 Vac load tap changing

transformers. Procedure 0POP02-AE-0002, “Transformer Normal Breaker and Switch Lineup,” was not revised providing these instructions. In December 2010, Unit 2 experienced a material issue with the load tap changer, which required operations to take manual control of the load tap changer without procedure guidance. Subsequently, the licensee issued an operation’s standing order to allow for manual operations, but did not revise the procedure. In May 2011, the licensee experienced another material condition issue with the Unit 2 load tap changer that required operations to take manual control of the load tap changer, but since the procedure was never revised, operations found themselves operating the plant outside of procedures again. Corrective actions included revising Procedure 0POP02-AE-0002, to include manual operation of the load tap changer, and training all the operations personnel on the new procedure.

This finding was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Design Control and Procedure Quality, and it affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The deficiency resulted in operations not having any guidance on how to control the Units 1 and 2 train B 4160 Vac transformer load tap changer to ensure that the bus remained within technical specification surveillance requirement voltage limits. 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 represent a loss of safety system 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 cross-cutting aspects associated with decision making, in that, the licensee failed to communicate decisions and the basis for decisions to personnel who have a need to know the information to perform work safely [H.1(c)].
Inspection Report# : 2011004 *(pdf)*

Significance: G Jul 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a noncited violation of License Condition 2.E for the failure to implement and maintain in effect all provisions of the approved fire protection program. Specifically, the team identified two examples of failure to implement timely corrective actions to correct conditions adverse to fire protection. The first example related to making Procedure 0POP04-ZO-0001, “Control Room Evacuation,” Revision 33, consistent with the post-fire safe shutdown analysis in order to ensure the actions met critical time requirements. The second example related to not correcting a condition that could disable all three fire pumps simultaneously as a result of fire damage.

Failure to implement timely corrective actions in two instances for conditions adverse to fire protection is a performance deficiency. Both examples of this finding are of greater than minor significance because they impacted the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (fire) to prevent undesirable consequences. A senior reactor analyst performed Phase 3 significance determination for both examples. The analyst calculated the risk associated with the first example for the actions taken outside the control room as 2.702E-7. For the second example, the analyst assumed that a fire in Fire Area 67 would damage the electrical control cables for all three fire pumps and require manually starting a fire pump at the fire pump house. However, it was determined that a delay in fire suppression because of the need to use a fire hose would not result in a plant transient, require evacuation of the control room, or result in damage to any systems and components required for post-fire safe shutdown. Therefore, the senior reactor analyst determined that both examples of this finding are of very low safety significance (Green). The licensee entered this deficiency into the corrective action program as Condition Record 11-10905.

These examples of the performance deficiency had a crosscutting aspect in the area of human performance associated with resources because the licensee did not ensure that resources assigned to correct these deficiencies were adequate to assure nuclear safety. Specifically, the licensee failed to ensure adequate design margins by (1) failing to ensure that operators could perform all necessary manual actions prior to exceeding the regulatory requirements and (2) failing to modify the control circuits for the fire pumps to protect them against fire damage [H.2(a)].

Inspection Report# : 2011006 *(pdf)*

Significance: G 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 0PGP03-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: G 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 0POP11-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: G 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 0PGP03-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 0PGP03-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)].

Inspection Report# : 2010007 *(pdf)*

Significance: G 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: G 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 suctions 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 suctions 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.

Inspection Report# : 2010007 *(pdf)*

Significance: G 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 0POP02-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)].

Inspection Report# : 2010007 *(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

Last modified : March 02, 2012

South Texas 2
1Q/2012 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Change on Class 1E 4160 Vac ESF Transformers
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," for the failure to ensure that design standards were correctly translated into drawings, procedures, and instructions. Specifically, the design specifications of the Class 1E 4160 Vac buses were not maintained with the installation of a new transformer. The root cause investigation determined that the design change package that installed the new transformers on Units 1 and 2 in October 2009 and April 2010, respectively, was not modeled correctly. The licensee captured this event as Condition Report 11-10205 and implemented immediate compensatory measures of increased monitoring on the Class 1E 4160 Vac buses by implementing temporary logs to ensure that the Class 1E loads were within their technical specifications surveillance procedure acceptance criteria until the new design change package could be implemented on each unit.

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. The inadequate design change package resulted in the licensee declaring the Unit 2 Class 1E 4160 Vac E2B bus inoperable because it was outside of the technical specification surveillance procedure acceptance criteria for longer than allowed by technical specifications. 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 deficiency that did not result in a loss of functionality per Part 9900 Technical Guidance, "Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety," dated April 16, 2008. In addition, this finding had human performance cross-cutting aspects associated with work practices in that the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported [H.4(c)].
Inspection Report# : 2011005 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions from an Inadequate Extent of Condition Review
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," for the failure to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the licensee did not promptly identify and correct improperly installed temperature switches. On October 28, 2010, the Unit 2 essential cooling water vent fan 21A failed because the control power fuse blew due to an unused uninsulated wire. The root cause investigation determined that the unused wire had been installed when the switch was replaced in February 2005. The extent of condition review identified that a total of 60 switches had been replaced, but only one additional switch was verified and it also had an unused uninsulated wire. After inspector questioning, the licensee inspected the 12 actuation switches and determined that only the Unit 2 essential cooling water vent fans for trains A and C were affected. The licensee's corrective actions included: performing an immediate and prompt operability,

performing training with the maintenance personnel on the procedural requirements for unused wires, and scheduling the inspection of the 48 high/high temperature switches commensurate with risk significance.

This finding was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Design Control, Equipment Performance, and Human Performance and it affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The deficiency resulted in a potential inoperability of Unit 2 essential cooling water trains A and C since 2005. The senior resident inspector performed the initial significance determination for the essential cooling water issue using the NRC Inspection Manual Chapter 0609, Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The finding screened to a Phase 2 significance determination because it involved an actual loss of safety function of two single trains of equipment for greater than the technical specification allowed outage time. A Region IV senior reactor analyst attempted to perform a Phase 2 significance determination using the pre-solved worksheets, but the Phase 2 process was not well suited for this issue. Therefore, the senior reactor analyst performed a bounding Phase 3 significance determination and found the finding to be of very low safety significance. The dominant core damage sequence included: seismic initiated loss of offsite power, failure of the essential cooling water trains A and C, failure of the train B emergency diesel generator, and failure to recover the diesel or offsite power in 4 hours. The low frequency of seismic induced loss of offsite power events at South Texas Project and the unaffected train B essential cooling water train helped to mitigate the finding's significance. In addition, this finding had human performance cross-cutting aspects associated with decision-making, in that, the licensee failed to use conservative assumptions and verify the validity of the underlying assumptions [H.1(b)].
Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Corrective Action to Correct an Inadequate Procedure
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," for the failure to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the inspectors determined that operations had no instructions for manual control of the 4160 Vac load tap changing transformers. Procedure 0POP02-AE-0002, "Transformer Normal Breaker and Switch Lineup," was not revised providing these instructions. In December 2010, Unit 2 experienced a material issue with the load tap changer, which required operations to take manual control of the load tap changer without procedure guidance. Subsequently, the licensee issued an operation's standing order to allow for manual operations, but did not revise the procedure. In May 2011, the licensee experienced another material condition issue with the Unit 2 load tap changer that required operations to take manual control of the load tap changer, but since the procedure was never revised, operations found themselves operating the plant outside of procedures again. Corrective actions included revising Procedure 0POP02-AE-0002, to include manual operation of the load tap changer, and training all the operations personnel on the new procedure.

This finding was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Design Control and Procedure Quality, and it affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The deficiency resulted in operations not having any guidance on how to control the Units 1 and 2 train B 4160 Vac transformer load tap changer to ensure that the bus remained within technical specification surveillance requirement voltage limits. 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 represent a loss of safety system 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 cross-cutting aspects associated with decision making, in that, the licensee failed to communicate decisions and the basis for decisions to personnel who have a need to know the information to perform work safely [H.1(c)].
Inspection Report# : 2011004 *(pdf)*

Significance: G Jul 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a noncited violation of License Condition 2.E for the failure to implement and maintain in effect all provisions of the approved fire protection program. Specifically, the team identified two examples of failure to implement timely corrective actions to correct conditions adverse to fire protection. The first example related to making Procedure 0POP04-ZO-0001, "Control Room Evacuation," Revision 33, consistent with the post-fire safe shutdown analysis in order to ensure the actions met critical time requirements. The second example related to not correcting a condition that could disable all three fire pumps simultaneously as a result of fire damage.

Failure to implement timely corrective actions in two instances for conditions adverse to fire protection is a performance deficiency. Both examples of this finding are of greater than minor significance because they impacted the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (fire) to prevent undesirable consequences. A senior reactor analyst performed Phase 3 significance determination for both examples. The analyst calculated the risk associated with the first example for the actions taken outside the control room as 2.702E-7. For the second example, the analyst assumed that a fire in Fire Area 67 would damage the electrical control cables for all three fire pumps and require manually starting a fire pump at the fire pump house. However, it was determined that a delay in fire suppression because of the need to use a fire hose would not result in a plant transient, require evacuation of the control room, or result in damage to any systems and components required for post-fire safe shutdown. Therefore, the senior reactor analyst determined that both examples of this finding are of very low safety significance (Green). The licensee entered this deficiency into the corrective action program as Condition Record 11-10905.

These examples of the performance deficiency had a crosscutting aspect in the area of human performance associated with resources because the licensee did not ensure that resources assigned to correct these deficiencies were adequate to assure nuclear safety. Specifically, the licensee failed to ensure adequate design margins by (1) failing to ensure that operators could perform all necessary manual actions prior to exceeding the regulatory requirements and (2) failing to modify the control circuits for the fire pumps to protect them against fire damage [H.2(a)].

Inspection Report# : 2011006 *(pdf)*

Significance: G 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 0PGP03-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)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedures and Maintain Doses ALARA
On November 1, 2011, the inspectors identified a non-cited violation of Technical Specification 6.8.1.a, for the failure to follow procedures and minimize occupational doses during an outage maintenance activity for the disassembly of the Unit 2 reactor head. Specifically, Work Activity Number 376357 was not properly planned and managed, which resulted in unplanned worker dose. This work activity for the disassembly of the Unit 2 old reactor vessel closure head during the Unit 2 spring 2010 outage had a projected dose of 8.396 rem. However, the job ended with an actual collective dose of 14.072 rem. This exceeded the dose estimate by 68 percent. The licensee addressed this issue in the corrective action program as Condition Reports 10-6669, 10-7863, and 11-29161.

This finding is more than minor because it affected the Occupational Radiation Safety Cornerstone attribute of Program and Process, in that, failure to follow ALARA procedures caused increased collective radiation dose for the job activity to exceed 5 person-rem and exceeded the planned dose by more than 50 percent. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined this finding to be of very low safety significance because although it involved ALARA planning and controls, the licensee's latest rolling 3-year average does not exceed 135 person-rem per unit. Furthermore, the finding had an associated cross-cutting aspect in the area of human performance, work control component because the licensee did not fully incorporate risk insights, job site conditions, plant structures, systems, and components, and radiological safety, as well as the need for planned contingencies to maintain doses ALARA [H.3(a)].
Inspection Report# : 2011005 *(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

Last modified : May 29, 2012

South Texas 2
2Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Jun 29, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Report a Condition Prohibited by Technical Specifications
The inspectors identified a non-cited violation of 10 CFR 50.73(a)(2)(i)(B) for the failure to report a condition prohibited by technical specifications to the NRC within 60 days. Specifically, on March 6, 2012, after reviewing licensee records, the inspectors informed the licensee that a violation of Technical Specification 3.4.1.4.2.b had occurred during the Unit 2 spring 2010 Refueling Outage 2RE13, because valves which isolated an unborated water source were not locked in the closed position. The licensee's corrective action included revising the reportability procedures to ensure that both units are addressed in the future.

The failure to report the occurrence of a condition prohibited by technical specifications is a performance deficiency which impacted the regulatory process and is a violation of NRC requirements. The violation was processed using traditional enforcement and determined to be a Severity Level IV violation consistent with Section 6.9 of the Enforcement Policy dated June 7, 2012.
Inspection Report# : 2012003 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Change on Class 1E 4160 Vac ESF Transformers
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," for the failure to ensure that design standards were correctly translated into drawings, procedures, and instructions. Specifically, the design specifications of the Class 1E 4160 Vac buses were not maintained with the installation of a new transformer. The root cause investigation determined that the design change package that installed the new transformers on Units 1 and 2 in October 2009 and April 2010, respectively, was not modeled correctly. The licensee captured this event as Condition Report 11-10205 and implemented immediate compensatory measures of increased monitoring on the Class 1E 4160 Vac buses by implementing temporary logs to ensure that the Class 1E loads were within their technical specifications surveillance procedure acceptance criteria until the new design change package could be implemented on each unit.

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. The inadequate design change package resulted in the licensee declaring the Unit 2 Class 1E 4160 Vac E2B bus inoperable because it was outside of the technical specification surveillance procedure acceptance criteria for longer than allowed by technical specifications. 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 deficiency that did not result in a loss of functionality per Part 9900 Technical Guidance, "Operability Determinations & Functionality Assessments for Resolution of Degraded or

Nonconforming Conditions Adverse to Quality or Safety," dated April 16, 2008. In addition, this finding had human performance cross-cutting aspects associated with work practices in that the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported [H.4(c)].
Inspection Report# : 2011005 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions from an Inadequate Extent of Condition Review
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," for the failure to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the licensee did not promptly identify and correct improperly installed temperature switches. On October 28, 2010, the Unit 2 essential cooling water vent fan 21A failed because the control power fuse blew due to an unused uninsulated wire. The root cause investigation determined that the unused wire had been installed when the switch was replaced in February 2005. The extent of condition review identified that a total of 60 switches had been replaced, but only one additional switch was verified and it also had an unused uninsulated wire. After inspector questioning, the licensee inspected the 12 actuation switches and determined that only the Unit 2 essential cooling water vent fans for trains A and C were affected. The licensee's corrective actions included: performing an immediate and prompt operability, performing training with the maintenance personnel on the procedural requirements for unused wires, and scheduling the inspection of the 48 high/high temperature switches commensurate with risk significance.

This finding was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Design Control, Equipment Performance, and Human Performance and it affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The deficiency resulted in a potential inoperability of Unit 2 essential cooling water trains A and C since 2005. The senior resident inspector performed the initial significance determination for the essential cooling water issue using the NRC Inspection Manual Chapter 0609, Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The finding screened to a Phase 2 significance determination because it involved an actual loss of safety function of two single trains of equipment for greater than the technical specification allowed outage time. A Region IV senior reactor analyst attempted to perform a Phase 2 significance determination using the pre-solved worksheets, but the Phase 2 process was not well suited for this issue. Therefore, the senior reactor analyst performed a bounding Phase 3 significance determination and found the finding to be of very low safety significance. The dominant core damage sequence included: seismic initiated loss of offsite power, failure of the essential cooling water trains A and C, failure of the train B emergency diesel generator, and failure to recover the diesel or offsite power in 4 hours. The low frequency of seismic induced loss of offsite power events at South Texas Project and the unaffected train B essential cooling water train helped to mitigate the finding's significance. In addition, this finding had human performance cross-cutting aspects associated with decision-making, in that, the licensee failed to use conservative assumptions and verify the validity of the underlying assumptions [H.1(b)].
Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Corrective Action to Correct an Inadequate Procedure
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," for the failure to assure that conditions adverse to quality were promptly identified and corrected. Specifically, the inspectors determined that operations had no instructions for manual control of the 4160 Vac load tap changing transformers. Procedure 0POP02-AE-0002, "Transformer Normal Breaker and Switch Lineup," was not revised providing these instructions. In December 2010, Unit 2 experienced a material issue with the load tap changer, which required operations to take manual control of the load tap changer without procedure guidance. Subsequently, the licensee issued an operation's standing order to allow for manual operations, but did not revise the procedure. In May 2011, the licensee experienced another material condition issue with the Unit 2 load tap changer that required operations to take manual control of the load tap changer, but since the procedure was never revised, operations found themselves operating the plant outside of procedures again. Corrective actions included revising Procedure 0POP02-

AE-0002, to include manual operation of the load tap changer, and training all the operations personnel on the new procedure.

This finding was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Design Control and Procedure Quality, and it affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The deficiency resulted in operations not having any guidance on how to control the Units 1 and 2 train B 4160 Vac transformer load tap changer to ensure that the bus remained within technical specification surveillance requirement voltage limits. 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 represent a loss of safety system 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 cross-cutting aspects associated with decision making, in that, the licensee failed to communicate decisions and the basis for decisions to personnel who have a need to know the information to perform work safely [H.1(c)].
Inspection Report# : 2011004 *(pdf)*

Significance:  Jul 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a noncited violation of License Condition 2.E for the failure to implement and maintain in effect all provisions of the approved fire protection program. Specifically, the team identified two examples of failure to implement timely corrective actions to correct conditions adverse to fire protection. The first example related to making Procedure 0POP04-ZO-0001, "Control Room Evacuation," Revision 33, consistent with the post-fire safe shutdown analysis in order to ensure the actions met critical time requirements. The second example related to not correcting a condition that could disable all three fire pumps simultaneously as a result of fire damage.

Failure to implement timely corrective actions in two instances for conditions adverse to fire protection is a performance deficiency. Both examples of this finding are of greater than minor significance because they impacted the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (fire) to prevent undesirable consequences. A senior reactor analyst performed Phase 3 significance determination for both examples. The analyst calculated the risk associated with the first example for the actions taken outside the control room as 2.702E-7. For the second example, the analyst assumed that a fire in Fire Area 67 would damage the electrical control cables for all three fire pumps and require manually starting a fire pump at the fire pump house. However, it was determined that a delay in fire suppression because of the need to use a fire hose would not result in a plant transient, require evacuation of the control room, or result in damage to any systems and components required for post-fire safe shutdown. Therefore, the senior reactor analyst determined that both examples of this finding are of very low safety significance (Green). The licensee entered this deficiency into the corrective action program as Condition Record 11-10905.

These examples of the performance deficiency had a crosscutting aspect in the area of human performance associated with resources because the licensee did not ensure that resources assigned to correct these deficiencies were adequate to assure nuclear safety. Specifically, the licensee failed to ensure adequate design margins by (1) failing to ensure that operators could perform all necessary manual actions prior to exceeding the regulatory requirements and (2) failing to modify the control circuits for the fire pumps to protect them against fire damage [H.2(a)].

Inspection Report# : 2011006 *(pdf)*

Barrier Integrity

Significance: G Jun 29, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Identify Conditions Adverse to Quality
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the failure to promptly identify conditions adverse to quality. Specifically, on May 21, 2012, the inspectors observed water was dripping from the isolation valve cubicle roof at several drops per minute and informed Unit 1 and 2 operations personnel to investigate further. The licensee confirmed that train C and D steam generator power operated relief valves in each unit were leaking steam directly to the atmosphere. The licensee entered the conditions into the corrective action program and plans to repair the valves at the next available opportunity.

The finding is more than minor because it is associated with the Barrier Integrity Cornerstone attribute of barrier performance and affected the cornerstone objective to protect the public from radionuclide releases caused by accidents or events because steam generator tube leakage events would release radionuclides directly to the atmosphere. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Appendix H, dated May 6, 2004. The finding was determined to be of very low safety significance because it did not affect core damage frequency and the components involved were not identified as being important to large early release frequency. In addition, this finding has a human performance cross-cutting aspect associated with decision making because 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# : 2012003 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedures and Maintain Doses ALARA
On November 1, 2011, the inspectors identified a non-cited violation of Technical Specification 6.8.1.a, for the failure to follow procedures and minimize occupational doses during an outage maintenance activity for the disassembly of the Unit 2 reactor head. Specifically, Work Activity Number 376357 was not properly planned and managed, which resulted in unplanned worker dose. This work activity for the disassembly of the Unit 2 old reactor vessel closure head during the Unit 2 spring 2010 outage had a projected dose of 8.396 rem. However, the job ended with an actual collective dose of 14.072 rem. This exceeded the dose estimate by 68 percent. The licensee addressed this issue in the corrective action program as Condition Reports 10-6669, 10-7863, and 11-29161.

This finding is more than minor because it affected the Occupational Radiation Safety Cornerstone attribute of Program and Process, in that, failure to follow ALARA procedures caused increased collective radiation dose for the job activity to exceed 5 person-rem and exceeded the planned dose by more than 50 percent. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined this finding to be of very low safety significance because although it involved ALARA planning and controls, the licensee's latest rolling 3-year average does not exceed 135 person-rem per unit. Furthermore, the finding had an associated cross-cutting aspect in the area of human performance, work control component because the licensee did not fully incorporate risk insights, job site conditions, plant structures, systems, and components, and radiological safety, as well as the need for planned contingencies to maintain doses ALARA [H.3(a)].
Inspection Report# : 2011005 *(pdf)*

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 : September 12, 2012

South Texas 2
3Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Jun 29, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Report a Condition Prohibited by Technical Specifications
The inspectors identified a non-cited violation of 10 CFR 50.73(a)(2)(i)(B) for the failure to report a condition prohibited by technical specifications to the NRC within 60 days. Specifically, on March 6, 2012, after reviewing licensee records, the inspectors informed the licensee that a violation of Technical Specification 3.4.1.4.2.b had occurred during the Unit 2 spring 2010 Refueling Outage 2RE13, because valves which isolated an unborated water source were not locked in the closed position. The licensee's corrective action included revising the reportability procedures to ensure that both units are addressed in the future.

The failure to report the occurrence of a condition prohibited by technical specifications is a performance deficiency which impacted the regulatory process and is a violation of NRC requirements. The violation was processed using traditional enforcement and determined to be a Severity Level IV violation consistent with Section 6.9 of the Enforcement Policy dated June 7, 2012.
Inspection Report# : 2012003 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Change on Class 1E 4160 Vac ESF Transformers
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criteria III, "Design Control," for the failure to ensure that design standards were correctly translated into drawings, procedures, and instructions. Specifically, the design specifications of the Class 1E 4160 Vac buses were not maintained with the installation of a new transformer. The root cause investigation determined that the design change package that installed the new transformers on Units 1 and 2 in October 2009 and April 2010, respectively, was not modeled correctly. The licensee captured this event as Condition Report 11-10205 and implemented immediate compensatory measures of increased monitoring on the Class 1E 4160 Vac buses by implementing temporary logs to ensure that the Class 1E loads were within their technical specifications surveillance procedure acceptance criteria until the new design change package could be implemented on each unit.

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. The inadequate design change package resulted in the licensee declaring the Unit 2 Class 1E 4160 Vac E2B bus inoperable because it was outside of the technical specification surveillance procedure acceptance criteria for longer than allowed by technical specifications. 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 deficiency that did not result in a loss of functionality per Part 9900 Technical Guidance, “Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety,” dated April 16, 2008. In addition, this finding had human performance cross-cutting aspects associated with work practices in that the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported [H.4(c)].
Inspection Report# : 2011005 *(pdf)*

Barrier Integrity

Significance: G Jun 29, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Identify Conditions Adverse to Quality
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the failure to promptly identify conditions adverse to quality. Specifically, on May 21, 2012, the inspectors observed water was dripping from the isolation valve cubicle roof at several drops per minute and informed Unit 1 and 2 operations personnel to investigate further. The licensee confirmed that train C and D steam generator power operated relief valves in each unit were leaking steam directly to the atmosphere. The licensee entered the conditions into the corrective action program and plans to repair the valves at the next available opportunity.

The finding is more than minor because it is associated with the Barrier Integrity Cornerstone attribute of barrier performance and affected the cornerstone objective to protect the public from radionuclide releases caused by accidents or events because steam generator tube leakage events would release radionuclides directly to the atmosphere. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Appendix H, dated May 6, 2004. The finding was determined to be of very low safety significance because it did not affect core damage frequency and the components involved were not identified as being important to large early release frequency. In addition, this finding has a human performance cross-cutting aspect associated with decision making because 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# : 2012003 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to Follow Procedures and Maintain Doses ALARA
On November 1, 2011, the inspectors identified a non-cited violation of Technical Specification 6.8.1.a, for the failure to follow procedures and minimize occupational doses during an outage maintenance activity for the disassembly of the Unit 2 reactor head. Specifically, Work Activity Number 376357 was not properly planned and managed, which resulted in unplanned worker dose. This work activity for the disassembly of the Unit 2 old reactor vessel closure head during the Unit 2 spring 2010 outage had a projected dose of 8.396 rem. However, the job ended with an actual collective dose of 14.072 rem. This exceeded the dose estimate by 68 percent. The licensee addressed this issue in the corrective action program as Condition Reports 10-6669, 10-7863, and 11-29161.

This finding is more than minor because it affected the Occupational Radiation Safety Cornerstone attribute of Program and Process, in that, failure to follow ALARA procedures caused increased collective radiation dose for the job activity to exceed 5 person-rem and exceeded the planned dose by more than 50 percent. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined this finding to be of very low safety significance because although it involved ALARA planning and controls, the licensee's latest rolling 3-year average does not exceed 135 person-rem per unit. Furthermore, the finding had an associated cross-cutting aspect in the area of human performance, work control component because the licensee did not fully incorporate risk insights, job site conditions, plant structures, systems, and components, and radiological safety, as well as the need for planned contingencies to maintain doses ALARA [H.3(a)].
Inspection Report# : 2011005 *(pdf)*

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 30, 2012

South Texas 2
4Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Pressure Testing of the Reactor Vessel Flange Leak-Off Lines
Inspectors identified a non-cited violation of 10CFR50.55a(g)(4) involving the licensee's failure to perform a system pressure test of the reactor vessel flange leak-off line of Units 1 and 2, in accordance with the applicable edition of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code. Contrary to the above, prior to November 1, 2012, the licensee failed to perform the required pressure test of the reactor vessel flange seal leak-off line for both units. Specifically, the licensee failed to implement the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, Class 2 requirements for pressure retaining components as provided by Article IWC 5220, "System Leakage Test." The licensee entered the finding into their corrective action program as Condition Report 12-28600.

The inspectors determined that the licensee's failure to perform a pressure test of the reactor vessel flange leak-off line was a performance deficiency. This finding was more than minor because it affected the Initiating Events Cornerstone attribute of Equipment Reliability and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions. Using Manual Chapter 0609, Attachment A, "The Significant Determination Process (SDP) for Findings At-Power," the finding was determined to be of very low safety significance (Green) because the finding did not result in exceeding the reactor coolant system leak rate for a small loss-of-coolant accident, and did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function. This issue did not have a cross-cutting aspect associated with it because it is not indicative of current performance.
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Adequate Fire Penetration Seal Material Thickness
The inspectors identified a non-cited violation of Technical Specification 6.8.1.d, "Fire Protection Program Implementation," for the failure to follow work order package instructions requiring the use of Drawing C012- 00081-F7F, "Detail "E-1" Silicone Elastomer Typical Electrical Pen. Seals (Walls & Floors)," to establish 6 inches of fire retardant sealant material for penetrations in Units 1 and 2. The inspectors noticed that Unit 1 train B safety-related 4160 Vac switchgear room electrical penetration F4476 had gaps around the edge. A design change installed new electrical cables that required the penetration be sealed using work order package 139376, that stated "the penetration seal WILL BE IAW the Penetration Seal Permit and detail Drawing C012- 00081-F7F." During the repair activities to correct the gaps, it was discovered that a portion of the seal was only 4.5 inches. The licensee captured this issue as Condition Report 12-28283. Corrective actions included restoring the seal to 6 inches, performing additional analysis to support a 3-hour fire barrier with just 5 inches, and performing extent of condition inspections.

The finding was more than minor because it was associated with the Initiating Events Cornerstone attributes of Design Control and Procedure Quality, and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions because it resulted in multiple fire penetration seals being declared nonfunctional as a result of being less than the design thickness. The inspectors used Manual Chapter 0609, Attachment 0609.04, to determine that fire protection issues are processed through Appendix F, "Fire Protection Significance Determination Process," dated February 28, 2005. The inspectors used Appendix F, Attachment 1, to determine that the finding was of very low safety significance because it was a Moderate A fire confinement issue that

screened out using Task 1.3.2 questions, since the seals would still have provided a 2-hour fire endurance rating or a 20 minute fire endurance rating without the seal being subject to direct flame impingement. In addition, this finding had human performance cross-cutting aspects associated with work practices because the licensee did not communicate human error prevention techniques such as self and peer checking, commensurate with the risk, such that the work activity was performed safely [H.4(a)].
Inspection Report# : 2012005 *(pdf)*

Significance: G Sep 28, 2012
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Procedure Results in Stator Cooling Water Coil Damage and Main Generator Trip
The inspectors reviewed a self-revealing finding for the failure to follow Procedure 0POP02-GG-0001, "Generator Hydrogen and Carbon Dioxide Gas System," Revision 43, for a verified alarm on the Unit 2 main generator. On November 26, 2011, the Unit 2 control room received a stator cooling water differential temperature high alarm. The crew responded by reviewing the annunciator response and determined that none of the parameters for contacting system engineering were reached. On November 27, 2011, the control room
received multiple generator condition monitor alarms and determined that the generator condition monitor system was malfunctioning, and generated a condition report. The generator condition monitor began to alarm again, on November 29, 2011, but since the control room thought the system was not functioning properly, they did not perform any of the required actions of Procedure 0POP02-GG-0001. Shortly after the alarms were received, the Unit 2 reactor tripped due to a main generator lockout, documented in Condition Report 11-28753. Corrective actions included: replacing all 72 stator cooling coils, refurbishing the stator and rotor, replacing the hydrogen cooler, revising the procedure, and operations training.

This finding was more than minor because it affected the Initiating Events Cornerstone attribute of Procedure Quality and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions in that it resulted in a turbine/reactor trip. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609. Because the finding affected the Initiating Events Cornerstone while the plant was at power, Attachment 0609.04, "Initial Characterization of
Findings," dated June 19, 2012, evaluates the finding using Appendix A. Using Appendix A, Exhibit 1, Transient Initiators question, the finding was determined to be of very low safety significance because it did not cause a reactor trip and the loss of mitigation equipment. This finding did not have cross-cutting aspects because the generator condition monitor alarm portion of the procedure was last changed in 2005 and this was the last time that could be reasonably viewed to have identified the deficiency and therefore was not indicative of current licensee performance.
Inspection Report# : 2012004 *(pdf)*

Significance: G Jun 29, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Report a Condition Prohibited by Technical Specifications
The inspectors identified a non-cited violation of 10 CFR 50.73(a)(2)(i)(B) for the failure to report a condition prohibited by technical specifications to the NRC within 60 days. Specifically, on March 6, 2012, after reviewing licensee records, the inspectors informed the licensee that a violation of Technical Specification 3.4.1.4.2.b had occurred during the Unit 2 spring 2010 Refueling Outage 2RE13, because valves which isolated an unborated water source were not locked in the closed position. The licensee's corrective action included revising the reportability procedures to ensure that both units are addressed in the future.

The failure to report the occurrence of a condition prohibited by technical specifications is a performance deficiency which impacted the regulatory process and is a violation of NRC requirements. The violation was processed using traditional enforcement and determined to be a Severity Level IV violation consistent with Section 6.9 of the Enforcement Policy dated June 7, 2012.
Inspection Report# : 2012003 *(pdf)*

Mitigating Systems

Significance: G Oct 31, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a violation of License Condition 2.E for the failure to correct a noncompliance. Procedure 0POP04-ZO-0001, "Control Room Evacuation," Revision 35, was not consistent with the post-fire safe shutdown analysis in that it failed to ensure the actions met critical time requirements. The licensee failed to implement timely corrective actions to correct this deficiency. Inspection Report 05000498/2011006 and 05000499/2011006 documented a violation involving the failure to implement and maintain in effect all provisions of the approved fire protection program. During this inspection, the team identified that the licensee had failed to restore compliance with its license condition within a reasonable time.

The licensee's failure to implement timely corrective actions to correct conditions adverse to fire protection as required by its Operations Quality Assurance Plan is a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (such as fire) to prevent undesirable consequences. Specifically, the licensee failed to ensure reliability of its post-fire safe shutdown systems by demonstrating that it could achieve safe shutdown following a fire in the control room by using approved actions. The significance of this finding could not be evaluated using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," because the performance deficiency involved a control room fire that led to control room evacuation. A senior reactor analyst determined that the upper bound for the overall change in core damage frequency that resulted from this performance deficiency was 2.702E-7/yr and was not significant with respect to large early release frequency. The analyst therefore determined that this performance deficiency was of very low risk significance (Green). The team determined that the performance deficiency had a cross-cutting aspect in the corrective action component of the problem identification and resolution cross-cutting area because the licensee did not thoroughly evaluate the problem such that resolutions addressed the cause. Specifically, the licensee failed to take adequate corrective actions to ensure that operators could perform all necessary manual actions as approved prior to exceeding the regulatory requirements (P.1(c)).
Inspection Report# : 2012007 *(pdf)*

Significance: G Sep 28, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Correct a Condition Adverse to Quality
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to promptly identify and correct a condition adverse to quality. Specifically, the licensee failed to correct a longstanding leak from the body-to-bonnet gasket on the safety injection system hot leg check valve 1N122XSI0010A, a portion of the reactor coolant system Class 1 pressure boundary.

This finding was more than minor because it affected the Mitigating Systems Cornerstone. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609. Because the finding affected the Mitigating Systems Cornerstone while the plant was at power, Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, evaluates the finding using Appendix A. Using Appendix A, Exhibit 2, Mitigating Systems Screening Questions, the finding was determined to be of very low safety
significance because it was not a design or qualification issue confirmed not to result in a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; and did not result in the loss of one or more trains of nontechnical specification equipment. This issue has been entered into the licensee's corrective action program as Condition Report 11-23693. Because the licensee evaluated the condition during the recent refueling outage in November 2011 prior to NRC involvement and considered actions to repair the seal cap enclosure weld adequate without considering the condition of the pressure retaining boundary, this issue was considered indicative of current plant performance. In addition, this finding had a human performance cross-cutting aspect associated with decision making, because the licensee failed to use

conservative assumptions when making decisions and did not demonstrate that nuclear safety was an overriding priority [H.1(b)].
Inspection Report# : 2012004 *(pdf)*

Barrier Integrity

Significance: G Jun 29, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Identify Conditions Adverse to Quality
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the failure to promptly identify conditions adverse to quality. Specifically, on May 21, 2012, the inspectors observed water was dripping from the isolation valve cubicle roof at several drops per minute and informed Unit 1 and 2 operations personnel to investigate further. The licensee confirmed that train C and D steam generator power operated relief valves in each unit were leaking steam directly to the atmosphere. The licensee entered the conditions into the corrective action program and plans to repair the valves at the next available opportunity.

The finding is more than minor because it is associated with the Barrier Integrity Cornerstone attribute of barrier performance and affected the cornerstone objective to protect the public from radionuclide releases caused by accidents or events because steam generator tube leakage events would release radionuclides directly to the atmosphere. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Appendix H, dated May 6, 2004. The finding was determined to be of very low safety significance because it did not affect core damage frequency and the components involved were not identified as being important to large early release frequency. In addition, this finding has a human performance cross-cutting aspect associated with decision making because 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# : 2012003 *(pdf)*

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

Significance: N/A Oct 31, 2012
Identified By: NRC
Item Type: FIN Finding
SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, 2012, Biennial Problem Identification and Resolution Inspection Summary
The team reviewed approximately 210 condition reports, including associated work orders, engineering evaluations, root and apparent cause evaluations, and other supporting documentation. The purpose of this review, focused on documentation of higher-significance issues, was to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, self assessments, trending reports and metrics, and various other documents related to the corrective action program. The team concluded that with limited exceptions, the licensee maintained a corrective action program in which issues were generally identified at an appropriately low threshold. Issues entered into the corrective action program were appropriately evaluated and timely addressed, commensurate with their safety significance. Corrective actions were generally effective, addressing the causes and extents of condition of problems.

The licensee appropriately evaluated industry operating experience for relevance to the facility and entered applicable items in the corrective action program. The licensee used industry operating experience when performing root cause and apparent cause evaluations. The licensee performed effective quality assurance audits and self assessments, as demonstrated by its self identification of some needed improvements in corrective action program performance and of ineffective corrective actions.

The licensee maintained a safety-conscious work environment in which personnel felt free to raise nuclear safety concerns without fear of retaliation. All individuals interviewed by the team were willing to raise these concerns by at least one of the several methods available.
Inspection Report# : 2012007 *(pdf)*

Last modified : February 28, 2013

South Texas 2
1Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Pressure Testing of the Reactor Vessel Flange Leak-Off Lines
Inspectors identified a non-cited violation of 10CFR50.55a(g)(4) involving the licensee's failure to perform a system pressure test of the reactor vessel flange leak-off line of Units 1 and 2, in accordance with the applicable edition of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code. Contrary to the above, prior to November 1, 2012, the licensee failed to perform the required pressure test of the reactor vessel flange seal leak-off line for both units. Specifically, the licensee failed to implement the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, Class 2 requirements for pressure retaining components as provided by Article IWC 5220, "System Leakage Test." The licensee entered the finding into their corrective action program as Condition Report 12-28600.

The inspectors determined that the licensee's failure to perform a pressure test of the reactor vessel flange leak-off line was a performance deficiency. This finding was more than minor because it affected the Initiating Events Cornerstone attribute of Equipment Reliability and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions. Using Manual Chapter 0609, Attachment A, "The Significant Determination Process (SDP) for Findings At-Power," the finding was determined to be of very low safety significance (Green) because the finding did not result in exceeding the reactor coolant system leak rate for a small loss-of-coolant accident, and did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function. This issue did not have a cross-cutting aspect associated with it because it is not indicative of current performance.
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Adequate Fire Penetration Seal Material Thickness
The inspectors identified a non-cited violation of Technical Specification 6.8.1.d, "Fire Protection Program Implementation," for the failure to follow work order package instructions requiring the use of Drawing C012- 00081-F7F, "Detail "E-1" Silicone Elastomer Typical Electrical Pen. Seals (Walls & Floors)," to establish 6 inches of fire retardant sealant material for penetrations in Units 1 and 2. The inspectors noticed that Unit 1 train B safety-related 4160 Vac switchgear room electrical penetration F4476 had gaps around the edge. A design change installed new electrical cables that required the penetration be sealed using work order package 139376, that stated "the penetration seal WILL BE IAW the Penetration Seal Permit and detail Drawing C012- 00081-F7F." During the repair activities to correct the gaps, it was discovered that a portion of the seal was only 4.5 inches. The licensee captured this issue as Condition Report 12-28283. Corrective actions included restoring the seal to 6 inches, performing additional analysis to support a 3-hour fire barrier with just 5 inches, and performing extent of condition inspections.

The finding was more than minor because it was associated with the Initiating Events Cornerstone attributes of Design

Control and Procedure Quality, and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions because it resulted in multiple fire penetration seals being declared nonfunctional as a result of being less than the design thickness. The inspectors used Manual Chapter 0609, Attachment 0609.04, to determine that fire protection issues are processed through Appendix F, "Fire Protection Significance Determination Process," dated February 28, 2005. The inspectors used Appendix F, Attachment 1, to determine that the finding was of very low safety significance because it was a Moderate A fire confinement issue that screened out using Task 1.3.2 questions, since the seals would still have provided a 2-hour fire endurance rating or a 20 minute fire endurance rating without the seal being subject to direct flame impingement. In addition, this finding had human performance cross-cutting aspects associated with work practices because the licensee did not communicate human error prevention techniques such as self and peer checking, commensurate with the risk, such that the work activity was performed safely [H.4(a)].
Inspection Report# : 2012005 *(pdf)*

Significance: G Sep 28, 2012
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Procedure Results in Stator Cooling Water Coil Damage and Main Generator Trip
The inspectors reviewed a self-revealing finding for the failure to follow Procedure 0POP02-GG-0001, "Generator Hydrogen and Carbon Dioxide Gas System," Revision 43, for a verified alarm on the Unit 2 main generator. On November 26, 2011, the Unit 2 control room received a stator cooling water differential temperature high alarm. The crew responded by reviewing the annunciator response and determined that none of the parameters for contacting system engineering were reached. On November 27, 2011, the control room
received multiple generator condition monitor alarms and determined that the generator condition monitor system was malfunctioning, and generated a condition report. The generator condition monitor began to alarm again, on November 29, 2011, but since the control room thought the system was not functioning properly, they did not perform any of the required actions of Procedure 0POP02-GG-0001. Shortly after the alarms were received, the Unit 2 reactor tripped due to a main generator lockout, documented in Condition Report 11-28753. Corrective actions included: replacing all 72 stator cooling coils, refurbishing the stator and rotor, replacing the hydrogen cooler, revising the procedure, and operations training.

This finding was more than minor because it affected the Initiating Events Cornerstone attribute of Procedure Quality and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions in that it resulted in a turbine/reactor trip. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609. Because the finding affected the Initiating Events Cornerstone while the plant was at power, Attachment 0609.04, "Initial Characterization of
Findings," dated June 19, 2012, evaluates the finding using Appendix A. Using Appendix A, Exhibit 1, Transient Initiators question, the finding was determined to be of very low safety significance because it did not cause a reactor trip and the loss of mitigation equipment. This finding did not have cross-cutting aspects because the generator condition monitor alarm portion of the procedure was last changed in 2005 and this was the last time that could be reasonably viewed to have identified the deficiency and therefore was not indicative of current licensee performance.
Inspection Report# : 2012004 *(pdf)*

Significance: G Jun 29, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Report a Condition Prohibited by Technical Specifications
The inspectors identified a non-cited violation of 10 CFR 50.73(a)(2)(i)(B) for the failure to report a condition prohibited by technical specifications to the NRC within 60 days. Specifically, on March 6, 2012, after reviewing licensee records, the inspectors informed the licensee that a violation of Technical Specification 3.4.1.4.2.b had

occurred during the Unit 2 spring 2010 Refueling Outage 2RE13, because valves which isolated an unborated water source were not locked in the closed position. The licensee's corrective action included revising the reportability procedures to ensure that both units are addressed in the future.

The failure to report the occurrence of a condition prohibited by technical specifications is a performance deficiency which impacted the regulatory process and is a violation of NRC requirements. The violation was processed using traditional enforcement and determined to be a Severity Level IV violation consistent with Section 6.9 of the Enforcement Policy dated June 7, 2012.
Inspection Report# : 2012003 *(pdf)*

Mitigating Systems

Significance: G Mar 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Use of Non-Conservative Values in Reportability Evaluation
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criteron V, "Instructions, Procedures, and Drawings," for the failure to follow Procedure 0PGP04-ZA-0002, "Condition Report Engineering Evaluation," Revision 18. On February 25, 2013, cavitation damage was discovered during a scheduled inspection of train C essential cooling water return throttle valve to the component cooling water heat exchange valve 2-EW-0101. A reportability review was performed by civil and mechanical design engineering personnel using Procedure 0PGP04-ZA-0002. Step 3.0 of this procedure stated that the engineering supervisor and the preparer are responsible for ensuring that the evaluation is technically and administratively correct. The inspectors determined that the evaluation was not technically correct because non-conservative values were used for carbon steel, and there was no discussion on aluminum bronze. The licensee entered this issue into the corrective action program as Condition Report 13-3170. Corrective actions included revising the original evaluation, generating a lessons learned for the engineering department,
and creating an action item to evaluate revising the procedure to more clearly define roles and responsibilities for cross discipline evaluations.

This finding was more than minor because it affected the Mitigating Systems Cornerstone attribute of 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. Specifically, using non-conservative values in a reportability evaluation which resulted in significant calculational errors requiring the evaluation be revised. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609 because the finding affected the Mitigating Systems Cornerstone while the plant was at power. Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, evaluates the finding
using Appendix A. Using Appendix A, Exhibit 2, Mitigating Systems Screening Questions, the finding was determined to be of very low safety significance because it was not a design or qualification issue confirmed not to result in a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; and did not result in the loss of one or more trains of nontechnical specification equipment. In addition, the NRC determined the finding had a human performance cross-cutting aspect, associated with work practices, because error prevention techniques such as self and peer checking were not performed commensurate with risk of the assigned task [H.4(a)].

Inspection Report# : 2013002 *(pdf)*

Significance: G Oct 31, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a violation of License Condition 2.E for the failure to correct a noncompliance. Procedure 0POP04-ZO-0001, "Control Room Evacuation," Revision 35, was not consistent with the post-fire safe shutdown analysis in that it failed to ensure the actions met critical time requirements. The licensee failed to implement timely corrective actions to correct this deficiency. Inspection Report 05000498/2011006 and 05000499/2011006 documented a violation involving the failure to implement and maintain in effect all provisions of the approved fire protection program. During this inspection, the team identified that the licensee had failed to restore compliance with its license condition within a reasonable time.

The licensee's failure to implement timely corrective actions to correct conditions adverse to fire protection as required by its Operations Quality Assurance Plan is a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (such as fire) to prevent undesirable consequences. Specifically, the licensee failed to ensure reliability of its post-fire safe shutdown systems by demonstrating that it could achieve safe shutdown following a fire in the control room by using approved actions. The significance of this finding could not be evaluated using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," because the performance deficiency involved a control room fire that led to control room evacuation. A senior reactor analyst determined that the upper bound for the overall change in core damage frequency that resulted from this performance deficiency was 2.702E-7/yr and was not significant with respect to large early release frequency. The analyst therefore determined that this performance deficiency was of very low risk significance (Green). The team determined that the performance deficiency had a cross-cutting aspect in the corrective action component of the problem identification and resolution cross-cutting area because the licensee did not thoroughly evaluate the problem such that resolutions addressed the cause. Specifically, the licensee failed to take adequate corrective actions to ensure that operators could perform all necessary manual actions as approved prior to exceeding the regulatory requirements (P.1(c)).
Inspection Report# : 2012007 *(pdf)*

Significance: G Sep 28, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Correct a Condition Adverse to Quality
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to promptly identify and correct a condition adverse to quality. Specifically, the licensee failed to correct a longstanding leak from the body-to-bonnet gasket on the safety injection system hot leg check valve 1N122XSI0010A, a portion of the reactor coolant system Class 1 pressure boundary.

This finding was more than minor because it affected the Mitigating Systems Cornerstone. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609. Because the finding affected the Mitigating Systems Cornerstone while the plant was at power, Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, evaluates the finding using Appendix A. Using Appendix A, Exhibit 2, Mitigating Systems Screening Questions, the finding was determined to be of very low safety significance because it was not a design or qualification issue confirmed not to result in a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; and did not result in the loss of one or more trains of nontechnical specification equipment. This issue has been entered into the licensee's corrective action program as Condition Report 11-23693. Because the licensee evaluated the condition during the recent refueling outage in November 2011 prior to NRC involvement and considered actions to repair the seal cap enclosure

weld adequate without considering the condition of the pressure retaining boundary, this issue was considered indicative of current plant performance. In addition, this finding had a human performance cross-cutting aspect associated with decision making, because the licensee failed to use
conservative assumptions when making decisions and did not demonstrate that nuclear safety was an overriding priority [H.1(b)].
Inspection Report# : 2012004 *(pdf)*

Barrier Integrity

Significance: G Jun 29, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Identify Conditions Adverse to Quality
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the failure to promptly identify conditions adverse to quality. Specifically, on May 21, 2012, the inspectors observed water was dripping from the isolation valve cubicle roof at several drops per minute and informed Unit 1 and 2 operations personnel to investigate further. The licensee confirmed that train C and D steam generator power operated relief valves in each unit were leaking steam directly to the atmosphere. The licensee entered the conditions into the corrective action program and plans to repair the valves at the next available opportunity.

The finding is more than minor because it is associated with the Barrier Integrity Cornerstone attribute of barrier performance and affected the cornerstone objective to protect the public from radionuclide releases caused by accidents or events because steam generator tube leakage events would release radionuclides directly to the atmosphere. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Appendix H, dated May 6, 2004. The finding was determined to be of very low safety significance because it did not affect core damage frequency and the components involved were not identified as being important to large early release frequency. In addition, this finding has a human performance cross-cutting aspect associated with decision making because 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# : 2012003 *(pdf)*

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

Significance: N/A Oct 31, 2012
Identified By: NRC
Item Type: FIN Finding
SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, 2012, Biennial Problem Identification and Resolution Inspection Summary
The team reviewed approximately 210 condition reports, including associated work orders, engineering evaluations, root and apparent cause evaluations, and other supporting documentation. The purpose of this review, focused on documentation of higher-significance issues, was to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, self assessments, trending reports and metrics, and various other documents related to the corrective action program. The team concluded that with limited exceptions, the licensee maintained a corrective action program in which issues were generally identified at an appropriately low threshold. Issues entered into the corrective action program were appropriately evaluated and timely addressed, commensurate with their safety significance. Corrective actions were generally effective, addressing the causes and extents of condition of problems.

The licensee appropriately evaluated industry operating experience for relevance to the facility and entered applicable items in the corrective action program. The licensee used industry operating experience when performing root cause and apparent cause evaluations. The licensee performed effective quality assurance audits and self assessments, as demonstrated by its self identification of some needed improvements in corrective action program performance and of ineffective corrective actions.

The licensee maintained a safety-conscious work environment in which personnel felt free to raise nuclear safety concerns without fear of retaliation. All individuals interviewed by the team were willing to raise these concerns by at least one of the several methods available.
Inspection Report# : 2012007 *(pdf)*

Last modified : June 04, 2013

South Texas 2
2Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Pressure Testing of the Reactor Vessel Flange Leak-Off Lines
Inspectors identified a non-cited violation of 10CFR50.55a(g)(4) involving the licensee's failure to perform a system pressure test of the reactor vessel flange leak-off line of Units 1 and 2, in accordance with the applicable edition of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code. Contrary to the above, prior to November 1, 2012, the licensee failed to perform the required pressure test of the reactor vessel flange seal leak-off line for both units. Specifically, the licensee failed to implement the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, Class 2 requirements for pressure retaining components as provided by Article IWC 5220, "System Leakage Test." The licensee entered the finding into their corrective action program as Condition Report 12-28600.

The inspectors determined that the licensee's failure to perform a pressure test of the reactor vessel flange leak-off line was a performance deficiency. This finding was more than minor because it affected the Initiating Events Cornerstone attribute of Equipment Reliability and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions. Using Manual Chapter 0609, Attachment A, "The Significant Determination Process (SDP) for Findings At-Power," the finding was determined to be of very low safety significance (Green) because the finding did not result in exceeding the reactor coolant system leak rate for a small loss-of-coolant accident, and did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function. This issue did not have a cross-cutting aspect associated with it because it is not indicative of current performance.
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Adequate Fire Penetration Seal Material Thickness
The inspectors identified a non-cited violation of Technical Specification 6.8.1.d, "Fire Protection Program Implementation," for the failure to follow work order package instructions requiring the use of Drawing C012- 00081-F7F, "Detail "E-1" Silicone Elastomer Typical Electrical Pen. Seals (Walls & Floors)," to establish 6 inches of fire retardant sealant material for penetrations in Units 1 and 2. The inspectors noticed that Unit 1 train B safety-related 4160 Vac switchgear room electrical penetration F4476 had gaps around the edge. A design change installed new electrical cables that required the penetration be sealed using work order package 139376, that stated "the penetration seal WILL BE IAW the Penetration Seal Permit and detail Drawing C012- 00081-F7F." During the repair activities to correct the gaps, it was discovered that a portion of the seal was only 4.5 inches. The licensee captured this issue as Condition Report 12-28283. Corrective actions included restoring the seal to 6 inches, performing additional analysis to support a 3-hour fire barrier with just 5 inches, and performing extent of condition inspections.

The finding was more than minor because it was associated with the Initiating Events Cornerstone attributes of Design

Control and Procedure Quality, and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions because it resulted in multiple fire penetration seals being declared nonfunctional as a result of being less than the design thickness. The inspectors used Manual Chapter 0609, Attachment 0609.04, to determine that fire protection issues are processed through Appendix F, "Fire Protection Significance Determination Process," dated February 28, 2005. The inspectors used Appendix F, Attachment 1, to determine that the finding was of very low safety significance because it was a Moderate A fire confinement issue that screened out using Task 1.3.2 questions, since the seals would still have provided a 2-hour fire endurance rating or a 20 minute fire endurance rating without the seal being subject to direct flame impingement. In addition, this finding had human performance cross-cutting aspects associated with work practices because the licensee did not communicate human error prevention techniques such as self and peer checking, commensurate with the risk, such that the work activity was performed safely [H.4(a)].
Inspection Report# : 2012005 *(pdf)*

Significance: G Sep 28, 2012
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Procedure Results in Stator Cooling Water Coil Damage and Main Generator Trip
The inspectors reviewed a self-revealing finding for the failure to follow Procedure 0POP02-GG-0001, "Generator Hydrogen and Carbon Dioxide Gas System," Revision 43, for a verified alarm on the Unit 2 main generator. On November 26, 2011, the Unit 2 control room received a stator cooling water differential temperature high alarm. The crew responded by reviewing the annunciator response and determined that none of the parameters for contacting system engineering were reached. On November 27, 2011, the control room
received multiple generator condition monitor alarms and determined that the generator condition monitor system was malfunctioning, and generated a condition report. The generator condition monitor began to alarm again, on November 29, 2011, but since the control room thought the system was not functioning properly, they did not perform any of the required actions of Procedure 0POP02-GG-0001. Shortly after the alarms were received, the Unit 2 reactor tripped due to a main generator lockout, documented in Condition Report 11-28753. Corrective actions included: replacing all 72 stator cooling coils, refurbishing the stator and rotor, replacing the hydrogen cooler, revising the procedure, and operations training.

This finding was more than minor because it affected the Initiating Events Cornerstone attribute of Procedure Quality and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions in that it resulted in a turbine/reactor trip. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609. Because the finding affected the Initiating Events Cornerstone while the plant was at power, Attachment 0609.04, "Initial Characterization of
Findings," dated June 19, 2012, evaluates the finding using Appendix A. Using Appendix A, Exhibit 1, Transient Initiators question, the finding was determined to be of very low safety significance because it did not cause a reactor trip and the loss of mitigation equipment. This finding did not have cross-cutting aspects because the generator condition monitor alarm portion of the procedure was last changed in 2005 and this was the last time that could be reasonably viewed to have identified the deficiency and therefore was not indicative of current licensee performance.
Inspection Report# : 2012004 *(pdf)*

Mitigating Systems

Significance: G Mar 30, 2013
Identified By: NRC

Item Type: NCV NonCited Violation
Use of Non-Conservative Values in Reportability Evaluation
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criteron V, “Instructions, Procedures, and Drawings,” for the failure to follow Procedure 0PGP04-ZA-0002, “Condition Report Engineering Evaluation,” Revision 18. On February 25, 2013, cavitation damage was discovered during a scheduled inspection of train C essential cooling water return throttle valve to the component cooling water heat exchange valve 2-EW-0101. A reportability review was performed by civil and mechanical design engineering personnel using Procedure 0PGP04-ZA-0002. Step 3.0 of this procedure stated that the engineering supervisor and the preparer are responsible for ensuring that the evaluation is technically and administratively correct. The inspectors determined that the evaluation was not technically correct because non-conservative values were used for carbon steel, and there was no discussion on aluminum bronze. The licensee entered this issue into the corrective action program as Condition Report 13-3170. Corrective actions included revising the original evaluation, generating a lessons learned for the engineering department,
and creating an action item to evaluate revising the procedure to more clearly define roles and responsibilities for cross discipline evaluations.

This finding was more than minor because it affected the Mitigating Systems Cornerstone attribute of 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. Specifically, using non-conservative values in a reportability evaluation which resulted in significant calculational errors requiring the evaluation be revised. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609 because the finding affected the Mitigating Systems Cornerstone while the plant was at power. Attachment 0609.04, “Initial Characterization of Findings,” dated June 19, 2012, evaluates the finding
using Appendix A. Using Appendix A, Exhibit 2, Mitigating Systems Screening Questions, the finding was determined to be of very low safety significance because it was not a design or qualification issue confirmed not to result in a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; and did not result in the loss of one or more trains of nontechnical specification equipment. In addition, the NRC determined the finding had a human performance cross-cutting aspect, associated with work practices, because error prevention techniques such as self and peer checking were not performed commensurate with risk of the assigned task [H.4(a)].

Inspection Report# : 2013002 *(pdf)*

Significance: G Oct 31, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a violation of License Condition 2.E for the failure to correct a noncompliance. Procedure 0POP04-ZO-0001, “Control Room Evacuation,” Revision 35, was not consistent with the post-fire safe shutdown analysis in that it failed to ensure the actions met critical time requirements. The licensee failed to implement timely corrective actions to correct this deficiency. Inspection Report 05000498/2011006 and 05000499/2011006 documented a violation involving the failure to implement and maintain in effect all provisions of the approved fire protection program. During this inspection, the team identified that the licensee had failed to restore compliance with its license condition within a reasonable time.

The licensee’s failure to implement timely corrective actions to correct conditions adverse to fire protection as required by its Operations Quality Assurance Plan is a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to

initiating events (such as fire) to prevent undesirable consequences. Specifically, the licensee failed to ensure reliability of its post-fire safe shutdown systems by demonstrating that it could achieve safe shutdown following a fire in the control room by using approved actions. The significance of this finding could not be evaluated using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," because the performance deficiency involved a control room fire that led to control room evacuation. A senior reactor analyst determined that the upper bound for the overall change in core damage frequency that resulted from this performance deficiency was 2.702E-7/yr and was not significant with respect to large early release frequency. The analyst therefore determined that this performance deficiency was of very low risk significance (Green). The team determined that the performance deficiency had a cross-cutting aspect in the corrective action component of the problem identification and resolution cross-cutting area because the licensee did not thoroughly evaluate the problem such that resolutions addressed the cause. Specifically, the licensee failed to take adequate corrective actions to ensure that operators could perform all necessary manual actions as approved prior to exceeding the regulatory requirements (P.1(c)).
Inspection Report# : 2012007 *(pdf)*

Significance: G Sep 28, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Correct a Condition Adverse to Quality
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to promptly identify and correct a condition adverse to quality. Specifically, the licensee failed to correct a longstanding leak from the body-to-bonnet gasket on the safety injection system hot leg check valve 1N122XSI0010A, a portion of the reactor coolant system Class 1 pressure boundary.

This finding was more than minor because it affected the Mitigating Systems Cornerstone. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609. Because the finding affected the Mitigating Systems Cornerstone while the plant was at power, Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, evaluates the finding using Appendix A. Using Appendix A, Exhibit 2, Mitigating Systems Screening Questions, the finding was determined to be of very low safety significance because it was not a design or qualification issue confirmed not to result in a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; and did not result in the loss of one or more trains of nontechnical specification equipment. This issue has been entered into the licensee's corrective action program as Condition Report 11-23693. Because the licensee evaluated the condition during the recent refueling outage in November 2011 prior to NRC involvement and considered actions to repair the seal cap enclosure weld adequate without considering the condition of the pressure retaining boundary, this issue was considered indicative of current plant performance. In addition, this finding had a human performance cross-cutting aspect associated with decision making, because the licensee failed to use conservative assumptions when making decisions and did not demonstrate that nuclear safety was an overriding priority [H.1(b)].
Inspection Report# : 2012004 *(pdf)*

Barrier Integrity

Significance: G Jun 29, 2013
Identified By: NRC
Item Type: FIN Finding
Inadequate Design Calculations for Spent Fuel Pool Mitigation Strategies

The inspectors identified a Green finding for the licensee's failure to follow Procedure 0PGP04-ZA-0307, "Preparation of Calculations," Revision 4. Specifically, two parts were not followed, step 3.1.5.4 states all design calculations SHALL be identified AND their sources indicated by providing an adequate title/description; and step 3.2.2 which instructs performing a peer check review of the calculation for completeness, clarity, and accuracy. As part of a routine walkdown of the spent fuel pool area, the inspectors identified several issues of concern regarding the licensee's spent fuel pool mitigation strategy equipment which implements the fill and/or spray strategy. Specifically, the as-designed equipment did not match the as-installed configuration and the as-designed calculations did not account for standard engineering practices to ensure that all calculation considerations were taken into account. The licensee captured these issues in Condition Reports 13-3767 and 13-5006. Corrective actions included updating the calculations to include standard engineering practices and ensuring that the design matched the as-installed configuration.

The failure to follow Procedure 0PGP04-ZA-0307 to ensure an adequate design calculation and review for accuracy was a performance deficiency. This finding was more than minor because it adversely affected the design control attribute of the Barrier Integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers such as fuel cladding protect the public from radionuclide releases caused by accidents or events. The inspectors performed the significance determination process using NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," which evaluates the finding using Appendix L, "B.5.b Significance Determination Process", "Table 2 - Significance Characterization," and determined the finding was of very low safety significance because the finding did not result in an unrecoverable mitigating strategy due to the unavailability of post-accident cooling systems for the spent fuel pool. No cross-cutting aspects are assigned to this finding because the calculations were performed in 2007 and 2008 and are not considered indicative of current performance.
Inspection Report# : 2013003 *(pdf)*

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

Significance: N/A Oct 31, 2012
Identified By: NRC
Item Type: FIN Finding
SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, 2012, Biennial Problem Identification and Resolution Inspection Summary
The team reviewed approximately 210 condition reports, including associated work orders, engineering evaluations, root and apparent cause evaluations, and other supporting documentation. The purpose of this review, focused on documentation of higher-significance issues, was to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, self assessments, trending reports and metrics, and various other documents related to the corrective action program. The team concluded that with limited exceptions, the licensee maintained a corrective action program in which issues were generally identified at an appropriately low threshold. Issues entered into the corrective action program were appropriately evaluated and timely addressed, commensurate with their safety significance. Corrective actions were generally effective, addressing the causes and extents of condition of problems.

The licensee appropriately evaluated industry operating experience for relevance to the facility and entered applicable items in the corrective action program. The licensee used industry operating experience when performing root cause and apparent cause evaluations. The licensee performed effective quality assurance audits and self assessments, as demonstrated by its self identification of some needed improvements in corrective action program performance and of ineffective corrective actions.

The licensee maintained a safety-conscious work environment in which personnel felt free to raise nuclear safety concerns without fear of retaliation. All individuals interviewed by the team were willing to raise these concerns by at least one of the several methods available.
Inspection Report# : 2012007 *(pdf)*

Last modified : September 03, 2013

South Texas 2
3Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Pressure Testing of the Reactor Vessel Flange Leak-Off Lines
Inspectors identified a non-cited violation of 10CFR50.55a(g)(4) involving the licensee's failure to perform a system pressure test of the reactor vessel flange leak-off line of Units 1 and 2, in accordance with the applicable edition of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code. Contrary to the above, prior to November 1, 2012, the licensee failed to perform the required pressure test of the reactor vessel flange seal leak-off line for both units. Specifically, the licensee failed to implement the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, Class 2 requirements for pressure retaining components as provided by Article IWC 5220, "System Leakage Test." The licensee entered the finding into their corrective action program as Condition Report 12-28600.

The inspectors determined that the licensee's failure to perform a pressure test of the reactor vessel flange leak-off line was a performance deficiency. This finding was more than minor because it affected the Initiating Events Cornerstone attribute of Equipment Reliability and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions. Using Manual Chapter 0609, Attachment A, "The Significant Determination Process (SDP) for Findings At-Power," the finding was determined to be of very low safety significance (Green) because the finding did not result in exceeding the reactor coolant system leak rate for a small loss-of-coolant accident, and did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function. This issue did not have a cross-cutting aspect associated with it because it is not indicative of current performance.
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Adequate Fire Penetration Seal Material Thickness
The inspectors identified a non-cited violation of Technical Specification 6.8.1.d, "Fire Protection Program Implementation," for the failure to follow work order package instructions requiring the use of Drawing C012- 00081-F7F, "Detail "E-1" Silicone Elastomer Typical Electrical Pen. Seals (Walls & Floors)," to establish 6 inches of fire retardant sealant material for penetrations in Units 1 and 2. The inspectors noticed that Unit 1 train B safety-related 4160 Vac switchgear room electrical penetration F4476 had gaps around the edge. A design change installed new electrical cables that required the penetration be sealed using work order package 139376, that stated "the penetration seal WILL BE IAW the Penetration Seal Permit and detail Drawing C012- 00081-F7F." During the repair activities to correct the gaps, it was discovered that a portion of the seal was only 4.5 inches. The licensee captured this issue as Condition Report 12-28283. Corrective actions included restoring the seal to 6 inches, performing additional analysis to support a 3-hour fire barrier with just 5 inches, and performing extent of condition inspections.

The finding was more than minor because it was associated with the Initiating Events Cornerstone attributes of Design

Control and Procedure Quality, and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions because it resulted in multiple fire penetration seals being declared nonfunctional as a result of being less than the design thickness. The inspectors used Manual Chapter 0609, Attachment 0609.04, to determine that fire protection issues are processed through Appendix F, "Fire Protection Significance Determination Process," dated February 28, 2005. The inspectors used Appendix F, Attachment 1, to determine that the finding was of very low safety significance because it was a Moderate A fire confinement issue that screened out using Task 1.3.2 questions, since the seals would still have provided a 2-hour fire endurance rating or a 20 minute fire endurance rating without the seal being subject to direct flame impingement. In addition, this finding had human performance cross-cutting aspects associated with work practices because the licensee did not communicate human error prevention techniques such as self and peer checking, commensurate with the risk, such that the work activity was performed safely [H.4(a)].
Inspection Report# : 2012005 *(pdf)*

Mitigating Systems

Significance: G Mar 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Use of Non-Conservative Values in Reportability Evaluation
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criteron V, "Instructions, Procedures, and Drawings," for the failure to follow Procedure 0PGP04-ZA-0002, "Condition Report Engineering Evaluation," Revision 18. On February 25, 2013, cavitation damage was discovered during a scheduled inspection of train C essential cooling water return throttle valve to the component cooling water heat exchange valve 2-EW-0101. A reportability review was performed by civil and mechanical design engineering personnel using Procedure 0PGP04-ZA-0002. Step 3.0 of this procedure stated that the engineering supervisor and the preparer are responsible for ensuring that the evaluation is technically and administratively correct. The inspectors determined that the evaluation was not technically correct because non-conservative values were used for carbon steel, and there was no discussion on aluminum bronze. The licensee entered this issue into the corrective action program as Condition Report 13-3170. Corrective actions included revising the original evaluation, generating a lessons learned for the engineering department,
and creating an action item to evaluate revising the procedure to more clearly define roles and responsibilities for cross discipline evaluations.

This finding was more than minor because it affected the Mitigating Systems Cornerstone attribute of 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. Specifically, using non-conservative values in a reportability evaluation which resulted in significant calculational errors requiring the evaluation be revised. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609 because the finding affected the Mitigating Systems Cornerstone while the plant was at power. Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, evaluates the finding
using Appendix A. Using Appendix A, Exhibit 2, Mitigating Systems Screening Questions, the finding was determined to be of very low safety significance because it was not a design or qualification issue confirmed not to result in a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; and did not result in the loss of one or more trains of nontechnical specification equipment. In addition, the NRC determined the finding had a human performance cross-cutting aspect, associated with work practices, because error prevention techniques such as self and peer checking were not performed commensurate with risk of the assigned task [H.4(a)].

Inspection Report# : 2013002 *(pdf)*

Significance: G Oct 31, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a violation of License Condition 2.E for the failure to correct a noncompliance. Procedure 0POP04-ZO-0001, "Control Room Evacuation," Revision 35, was not consistent with the post-fire safe shutdown analysis in that it failed to ensure the actions met critical time requirements. The licensee failed to implement timely corrective actions to correct this deficiency. Inspection Report 05000498/2011006 and 05000499/2011006 documented a violation involving the failure to implement and maintain in effect all provisions of the approved fire protection program. During this inspection, the team identified that the licensee had failed to restore compliance with its license condition within a reasonable time.

The licensee's failure to implement timely corrective actions to correct conditions adverse to fire protection as required by its Operations Quality Assurance Plan is a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (such as fire) to prevent undesirable consequences. Specifically, the licensee failed to ensure reliability of its post-fire safe shutdown systems by demonstrating that it could achieve safe shutdown following a fire in the control room by using approved actions. The significance of this finding could not be evaluated using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," because the performance deficiency involved a control room fire that led to control room evacuation. A senior reactor analyst determined that the upper bound for the overall change in core damage frequency that resulted from this performance deficiency was 2.702E-7/yr and was not significant with respect to large early release frequency. The analyst therefore determined that this performance deficiency was of very low risk significance (Green). The team determined that the performance deficiency had a cross-cutting aspect in the corrective action component of the problem identification and resolution cross-cutting area because the licensee did not thoroughly evaluate the problem such that resolutions addressed the cause. Specifically, the licensee failed to take adequate corrective actions to ensure that operators could perform all necessary manual actions as approved prior to exceeding the regulatory requirements (P.1(c)).
Inspection Report# : 2012007 *(pdf)*

Barrier Integrity

Significance: G Jun 29, 2013
Identified By: NRC
Item Type: FIN Finding
Inadequate Design Calculations for Spent Fuel Pool Mitigation Strategies
The inspectors identified a Green finding for the licensee's failure to follow Procedure 0PGP04-ZA-0307, "Preparation of Calculations," Revision 4. Specifically, two parts were not followed, step 3.1.5.4 states all design calculations SHALL be identified AND their sources indicated by providing an adequate title/description; and step 3.2.2 which instructs performing a peer check review of the calculation for completeness, clarity, and accuracy. As part of a routine walkdown of the spent fuel pool area, the inspectors identified several issues of concern regarding the licensee's spent fuel pool mitigation strategy equipment which implements the fill and/or spray strategy. Specifically,

the as-designed equipment did not match the as-installed configuration and the as-designed calculations did not account for standard engineering practices to ensure that all calculation considerations were taken into account. The licensee captured these issues in Condition Reports 13-3767 and 13-5006. Corrective actions included updating the calculations to include standard engineering practices and ensuring that the design matched the as-installed configuration.

The failure to follow Procedure 0PGP04-ZA-0307 to ensure an adequate design calculation and review for accuracy was a performance deficiency. This finding was more than minor because it adversely affected the design control attribute of the Barrier Integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers such as fuel cladding protect the public from radionuclide releases caused by accidents or events. The inspectors performed the significance determination process using NRC Inspection Manual Chapter 0609, Attachment 4, “Initial Characterization of Findings,” which evaluates the finding using Appendix L, “B.5.b Significance Determination Process”, “Table 2 - Significance Characterization,” and determined the finding was of very low safety significance because the finding did not result in an unrecoverable mitigating strategy due to the unavailability of post-accident cooling systems for the spent fuel pool. No cross-cutting aspects are assigned to this finding because the calculations were performed in 2007 and 2008 and are not considered indicative of current performance.
Inspection Report# : 2013003 *(pdf)*

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

Significance: N/A Oct 31, 2012
Identified By: NRC

Item Type: FIN Finding
SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, 2012, Biennial Problem Identification and Resolution Inspection Summary
The team reviewed approximately 210 condition reports, including associated work orders, engineering evaluations, root and apparent cause evaluations, and other supporting documentation. The purpose of this review, focused on documentation of higher-significance issues, was to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, self assessments, trending reports and metrics, and various other documents related to the corrective action program. The team concluded that with limited exceptions, the licensee maintained a corrective action program in which issues were generally identified at an appropriately low threshold. Issues entered into the corrective action program were appropriately evaluated and timely addressed, commensurate with their safety significance. Corrective actions were generally effective, addressing the causes and extents of condition of problems.

The licensee appropriately evaluated industry operating experience for relevance to the facility and entered applicable items in the corrective action program. The licensee used industry operating experience when performing root cause and apparent cause evaluations. The licensee performed effective quality assurance audits and self assessments, as demonstrated by its self identification of some needed improvements in corrective action program performance and of ineffective corrective actions.

The licensee maintained a safety-conscious work environment in which personnel felt free to raise nuclear safety concerns without fear of retaliation. All individuals interviewed by the team were willing to raise these concerns by at least one of the several methods available.
Inspection Report# : 2012007 *(pdf)*

Last modified : December 03, 2013

South Texas 2
4Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Maintain Licensed Operator Examination Integrity
A self revealing Green noncited violation of 10 CFR Part 55.49, “Integrity of Examinations and Tests,” was identified for the failure of operations training personnel to ensure the integrity of an operating test scheduled for administration for an initial licensing examination scheduled for the week of September 30, 2013. This failure resulted in a potential compromise of examination integrity, but did not lead to an actual compromise of the administered examination.

This finding was more than minor because it would have affected examination integrity had it not been detected. However, because no actual compromise of examination integrity occurred, the finding was determined to have very low safety significance. This finding had a cross-cutting aspect in the area of human performance associated with work practices because the licensee did not properly self- and peer check to ensure a potential compromise of examination materials would not occur [H.4(a)].
Inspection Report# : 2013301 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Include Appropriate Acceptance Criteria in a Quality Procedure
The inspectors identified a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for failure to include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Specifically, the licensee did not include sufficient criteria to identify and evaluate new critical tasks created for operator performance on the simulator scenario portion of the biennial requalification examination to enable the evaluators to correctly assess licensed operator performance. The licensee has entered this issue into their corrective action program as Condition Report 2013-13857.

The failure to include appropriate qualitative acceptance criteria in Procedure LOR-GL-002, to ensure evaluators can correctly identify and evaluate critical tasks based on operator performance was a performance deficiency. The performance deficiency was more than minor, therefore, a finding, because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the failure to include the appropriate criteria to identify and evaluate critical tasks during biennial requalification examinations could result in operators returning to licensed operator duties without being properly remediated and retested on performance deficiencies. Using Manual Chapter 0609, Attachment 0609.04, Appendix I, “Operator Requalification Human Performance Significance Determination Process,” starting at block 9, the finding was determined to be of very low safety significance (Green) because the finding is associated with licensee administration of an annual requalification operating test. The finding had a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to make safety-significant or risk-significant
decisions using a systematic process [H.1(a)].

Inspection Report# : 2013005 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: FIN Finding
Flawed Job Performance Measures
The inspectors identified a finding of very low safety significance for developing and administering an excessive number of flawed job performance measures during the 2012 and 2013 NRC annual operating tests, which resulted in invalidating several operators' NRC annual operating tests. The inspectors reviewed all of the job performance measures that were developed and/or administered to the licensed operator staff for their annual operating tests. Greater than 20 percent of the job performance measures reviewed for both 2012 and 2013 were deemed to be flawed and inappropriate for an NRC-required operating test. This invalidated the operating tests for some of the licensed operators in both years. As part of their corrective action, Condition Report 2013-10673, the licensee retested the operators that were affected after the 2013 test, and analyzed the effect on site-wide human performance errors that the affected operators may have had after the 2012 operating test—there was no increase in human performance errors attributable to taking the flawed 2012 operating test.

Using Inspection Procedure 71111.11, Appendix C, "Annual Requalification Operating Test Quality," more than 20 percent of the annual operating test job performance measures developed in 2012 and 2013 were flawed; therefore, this was a performance deficiency. In accordance with Manual Chapter 0612, "Power Reactor Inspection Reports," the performance deficiency was more than minor, therefore, a finding because it affected the Initiating Events Cornerstone attribute of Human Performance, and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Manual Chapter 0609, Attachment 0609.04, Appendix I, "Operator Requalification Human Performance Significance Determination Process," starting at block 6, the finding was determined to be of very low safety significance (Green) because: the finding involved operating test quality; less than 40 percent of the job performance measures were flawed; and less than 40 percent of the simulator scenarios were flawed. In addition, the NRC determined the finding had a human performance cross-cutting aspect associated with decision-making because the licensee did not use conservative assumptions in decision making when developing the flawed job performance measures that invalidated several operators' annual operating tests [H.1(b)].

Inspection Report# : 2013005 *(pdf)*

Mitigating Systems

Significance: G Mar 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Use of Non-Conservative Values in Reportability Evaluation
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criteron V, "Instructions, Procedures, and Drawings," for the failure to follow Procedure 0PGP04-ZA-0002, "Condition Report Engineering Evaluation," Revision 18. On February 25, 2013, cavitation damage was discovered during a scheduled inspection of train C essential cooling water return throttle valve to the component cooling water heat exchange valve 2-EW-0101. A reportability review was performed by civil and mechanical design engineering personnel using Procedure 0PGP04-ZA-0002. Step 3.0 of this procedure stated that the engineering supervisor and the preparer are responsible for

ensuring that the evaluation is technically and administratively correct. The inspectors determined that the evaluation was not technically correct because non-conservative values were used for carbon steel, and there was no discussion on aluminum bronze. The licensee entered this issue into the corrective action program as Condition Report 13-3170. Corrective actions included revising the original evaluation, generating a lessons learned for the engineering department,
and creating an action item to evaluate revising the procedure to more clearly define roles and responsibilities for cross discipline evaluations.

This finding was more than minor because it affected the Mitigating Systems Cornerstone attribute of 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. Specifically, using non-conservative values in a reportability evaluation which resulted in significant calculational errors requiring the evaluation be revised. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609 because the finding affected the Mitigating Systems Cornerstone while the plant was at power. Attachment 0609.04, “Initial Characterization of Findings,” dated June 19, 2012, evaluates the finding
using Appendix A. Using Appendix A, Exhibit 2, Mitigating Systems Screening Questions, the finding was determined to be of very low safety significance because it was not a design or qualification issue confirmed not to result in a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; and did not result in the loss of one or more trains of nontechnical specification equipment. In addition, the NRC determined the finding had a human performance cross-cutting aspect, associated with work practices, because error prevention techniques such as self and peer checking were not performed commensurate with risk of the assigned task [H.4(a)].

Inspection Report# : 2013002 *(pdf)*

Significance: G Oct 31, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a violation of License Condition 2.E for the failure to correct a noncompliance. Procedure 0POP04-ZO-0001, “Control Room Evacuation,” Revision 35, was not consistent with the post-fire safe shutdown analysis in that it failed to ensure the actions met critical time requirements. The licensee failed to implement timely corrective actions to correct this deficiency. Inspection Report 05000498/2011006 and 05000499/2011006 documented a violation involving the failure to implement and maintain in effect all provisions of the approved fire protection program. During this inspection, the team identified that the licensee had failed to restore compliance with its license condition within a reasonable time.

The licensee’s failure to implement timely corrective actions to correct conditions adverse to fire protection as required by its Operations Quality Assurance Plan is a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (such as fire) to prevent undesirable consequences. Specifically, the licensee failed to ensure reliability of its post-fire safe shutdown systems by demonstrating that it could achieve safe shutdown following a fire in the control room by using approved actions. The significance of this finding could not be evaluated using Inspection Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” because the performance deficiency involved a control room fire that led to control room evacuation. A senior reactor analyst determined that the upper bound for the overall change in core damage frequency that resulted from this performance deficiency was 2.702E-7/yr and was not significant with respect to large early release frequency. The analyst therefore determined that this performance deficiency was of very low risk significance (Green). The team determined that the

performance deficiency had a cross-cutting aspect in the corrective action component of the problem identification and resolution cross-cutting area because the licensee did not thoroughly evaluate the problem such that resolutions addressed the cause. Specifically, the licensee failed to take adequate corrective actions to ensure that operators could perform all necessary manual actions as approved prior to exceeding the regulatory requirements (P.1(c)).
Inspection Report# : 2012007 *(pdf)*

Barrier Integrity

Significance: G Jun 29, 2013
Identified By: NRC
Item Type: FIN Finding
Inadequate Design Calculations for Spent Fuel Pool Mitigation Strategies
The inspectors identified a Green finding for the licensee's failure to follow Procedure 0PGP04-ZA-0307, "Preparation of Calculations," Revision 4. Specifically, two parts were not followed, step 3.1.5.4 states all design calculations SHALL be identified AND their sources indicated by providing an adequate title/description; and step 3.2.2 which instructs performing a peer check review of the calculation for completeness, clarity, and accuracy. As part of a routine walkdown of the spent fuel pool area, the inspectors identified several issues of concern regarding the licensee's spent fuel pool mitigation strategy equipment which implements the fill and/or spray strategy. Specifically, the as-designed equipment did not match the as-installed configuration and the as-designed calculations did not account for standard engineering practices to ensure that all calculation considerations were taken into account. The licensee captured these issues in Condition Reports 13-3767 and 13-5006. Corrective actions included updating the calculations to include standard engineering practices and ensuring that the design matched the as-installed configuration.

The failure to follow Procedure 0PGP04-ZA-0307 to ensure an adequate design calculation and review for accuracy was a performance deficiency. This finding was more than minor because it adversely affected the design control attribute of the Barrier Integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers such as fuel cladding protect the public from radionuclide releases caused by accidents or events. The inspectors performed the significance determination process using NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," which evaluates the finding using Appendix L, "B.5.b Significance Determination Process", "Table 2 - Significance Characterization," and determined the finding was of very low safety significance because the finding did not result in an unrecoverable mitigating strategy due to the unavailability of post-accident cooling systems for the spent fuel pool. No cross-cutting aspects are assigned to this finding because the calculations were performed in 2007 and 2008 and are not considered indicative of current performance.
Inspection Report# : 2013003 *(pdf)*

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 : February 24, 2014

South Texas 2
1Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Mar 28, 2014
Identified By: NRC
Item Type: VIO Violation
Failure to Accurately Document Completion of a Maintenance Activity
The inspectors identified a violation of 10 CFR 50.9; 10 CFR 50, Appendix B, Criterion XVII; and Technical Specification 6.8.1.a, for failure to accurately document completion of a maintenance activity. Specifically, on November 7, 2011, a maintenance supervisor documented that a work order step to hot torque the Unit 2 pressurizer spray valve hold down bolts had been performed, when this activity was never completed. The NRC's investigation determined that this falsification was deliberate violation that impacted the NRC's ability to perform its regulatory function, so this violation is being cited in accordance with the NRC Enforcement Policy (EA-13-213). This issue was entered into the licensee's corrective action program under Condition Report 14-4633. The individual who falsified the document was subject to administrative action in accordance with the licensee's program, and licensee management reinforced the need to ensure accurate quality records with workers.

The failure to accurately document completion of a maintenance activity was a performance deficiency. The performance deficiency was more than minor, therefore, a finding, because it affected the initiating events cornerstone, and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using the Inspection Manual Chapter 0609, Appendix A, Exhibit 1, Section A, "LOCA Initiators," the inspectors determined that the finding was of very low safety significance (Green) because the performance deficiency did not result in an actual degradation of the reactor coolant pressure boundary. In addition, this finding was evaluated under traditional enforcement due to the conclusion that it was a deliberate violation that impacted the NRC's ability to perform its regulatory function, and was determined to be a Severity Level IV violation. The finding was not assigned a cross-cutting aspect because it was not representative of current licensee performance in that the violation occurred more than 2 years ago.
Inspection Report# : 2014007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Develop Adequate Procedures for Loss of All Seal Cooling to a Reactor Coolant Pump
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which states, in part, "Instructions, procedures, or drawings shall include appropriate qualitative and quantitative acceptance criteria for determining that important activities have been satisfactorily accomplished." Specifically, prior to January 29, 2014, the licensee failed to include appropriate qualitative and quantitative criteria in emergency operating procedures, off-normal operating procedures, and annunciator response procedures that are used during a loss of all seal cooling to a reactor coolant pump to prevent increased risk of a reactor coolant pump seal loss of coolant accident. In response to this issue, the
licensee implemented changes to the affected procedures and communicated the changes to the operating staff. This finding was entered into the licensee's corrective action program as Condition Report 14-1635.

The team determined that the failure to include appropriate qualitative and quantitative criteria in emergency operating procedures, off-normal operating procedures, and annunciator response procedures for a loss of all seal cooling to a reactor cooling pump was a performance deficiency. This finding was more than minor because it adversely affected the Initiating Events Cornerstone attribute of Procedure Quality and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, operating procedures did not contain appropriate attributes to ensure timely action to prevent an increased likelihood of a reactor coolant pump seal loss of coolant accident. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 1, "Initiating Events Screening Questions," the team determined a detailed risk evaluation was necessary because, after a reasonable assessment of degradation, the finding could result in exceeding the reactor coolant system leak rate for a small loss of coolant accident. Therefore, the senior reactor analyst performed a bounding detailed risk evaluation. The analyst determined that the change to the core damage frequency would be less than 1E-7 per year (Green). This finding had a cross-cutting aspect in the area of human performance, training component because the licensee did not provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. [H.9]
Inspection Report# : 2013007 *(pdf)*

Significance: G Dec 31, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Maintain Licensed Operator Examination Integrity
A self revealing Green noncited violation of 10 CFR Part 55.49, "Integrity of Examinations and Tests," was identified for the failure of operations training personnel to ensure the integrity of an operating test scheduled for administration for an initial licensing examination scheduled for the week of September 30, 2013. This failure resulted in a potential compromise of examination integrity, but did not lead to an actual compromise of the administered examination.

This finding was more than minor because it would have affected examination integrity had it not been detected. However, because no actual compromise of examination integrity occurred, the finding was determined to have very low safety significance. This finding had a cross-cutting aspect in the area of human performance associated with work practices because the licensee did not properly self- and peer check to ensure a potential compromise of examination materials would not occur [H.4(a)].
Inspection Report# : 2013301 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Include Appropriate Acceptance Criteria in a Quality Procedure
The inspectors identified a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for failure to include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Specifically, the licensee did not include sufficient criteria to identify and evaluate new critical tasks created for operator performance on the simulator scenario portion of the biennial requalification examination to enable the evaluators to correctly assess licensed operator performance. The licensee has entered this issue into their corrective action program as Condition Report 2013-13857.

The failure to include appropriate qualitative acceptance criteria in Procedure LOR-GL-002, to ensure evaluators can correctly identify and evaluate critical tasks based on operator performance was a performance deficiency. The performance deficiency was more than minor, therefore, a finding, because if left uncorrected, the performance

deficiency would have the potential to lead to a more significant safety concern. Specifically, the failure to include the appropriate criteria to identify and evaluate critical tasks during biennial requalification examinations could result in operators returning to licensed operator duties without being properly remediated and retested on performance deficiencies. Using Manual Chapter 0609, Attachment 0609.04, Appendix I, "Operator Requalification Human Performance Significance Determination Process," starting at block 9, the finding was determined to be of very low safety significance (Green) because the finding is associated with licensee administration of an annual requalification operating test. The finding had a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to make safety-significant or risk-significant decisions using a systematic process [H.1(a)].

Inspection Report# : 2013005 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: FIN Finding
Flawed Job Performance Measures
The inspectors identified a finding of very low safety significance for developing and administering an excessive number of flawed job performance measures during the 2012 and 2013 NRC annual operating tests, which resulted in invalidating several operators' NRC annual operating tests. The inspectors reviewed all of the job performance measures that were developed and/or administered to the licensed operator staff for their annual operating tests. Greater than 20 percent of the job performance measures reviewed for both 2012 and 2013 were deemed to be flawed and inappropriate for an NRC-required operating test. This invalidated the operating tests for some of the licensed operators in both years. As part of their corrective action, Condition Report 2013-10673, the licensee retested the operators that were affected after the 2013 test, and analyzed the effect on site-wide human performance errors that the affected operators may have had after the 2012 operating test—there was no increase in human performance errors attributable to taking the flawed 2012 operating test.

Using Inspection Procedure 71111.11, Appendix C, "Annual Requalification Operating Test Quality," more than 20 percent of the annual operating test job performance measures developed in 2012 and 2013 were flawed; therefore, this was a performance deficiency. In accordance with Manual Chapter 0612, "Power Reactor Inspection Reports," the performance deficiency was more than minor, therefore, a finding because it affected the Initiating Events Cornerstone attribute of Human Performance, and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Manual Chapter 0609, Attachment 0609.04, Appendix I, "Operator Requalification Human Performance Significance Determination Process," starting at block 6, the finding was determined to be of very low safety significance (Green) because: the finding involved operating test quality; less than 40 percent of the job performance measures were flawed; and less than 40 percent of the simulator scenarios were flawed. In addition, the NRC determined the finding had a human performance cross-cutting aspect associated with decision-making because the licensee did not use conservative assumptions in decision making when developing the flawed job performance measures that invalidated several operators' annual operating tests [H.1(b)].

Inspection Report# : 2013005 *(pdf)*

Mitigating Systems

Significance: G Feb 06, 2014

Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Evaluate Safety-Related Equipment Electrical Load Requirements when Verifying the Adequacy of Voltage from the Nuclear Steam Supply System Inverter/Rectifier
The team identified a Green, non-cited 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, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions." Specifically, prior to February 11, 2014, the licensee failed to adequately verify by analysis that safety-related nuclear steam supply system instrumentation loads would be capable of operating at the minimum inverter output voltage, when the inverter is fed from the station battery, and when considering the actual voltage drop to the load. In response to this issue, the licensee performed a preliminary voltage drop analysis that supported an immediate operability determination. This finding was entered into the licensee's orrective action program as Condition Report 14-2017.

The team determined that failure to maintain design control of the nuclear steam supply system instrumentation power supply load was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the incorrect analysis resulted in a reasonable question of operability of nuclear steam supply system instrumentation to operate at the minimum inverter output voltage, when the inverter is fed from the station battery, and when the actual voltage drop to the load for that condition was considered. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Sequencing of Maintenance of 4160 VAC Circuit Breakers Prior to As-Found Tests
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents." Specifically, prior to January 13, 2014, the licensee's preventive maintenance Procedures OPMPO5-NA-002, "4160V Gould Breaker Test," and OPMP05-NA-0018 "4160 Volt Gould HK Breaker Overhaul/Lubrication," failed to assure that the 4160 VAC Gould circuit breakers would perform satisfactorily in service when the licensee performed maintenance prior to completing as-found tests to verify the circuit breakers would function properly. In response to this issue, the licensee validated that the components had passed their required surveillance tests and remained operable. This finding was entered into the licensee's corrective action program as Condition Reports 14-738 and 14-1633.

The team determined that failure to establish a test and maintenance program which ensures that safety-related 4160 VAC Gould circuit breakers would perform satisfactorily in service was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the failure to perform as-found tests prior to performing maintenance in preventive maintenance procedures was a significant programmatic deficiency which could cause unacceptable conditions to go

undetected. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of human performance, documentation component because the licensee failed to create and maintain complete, accurate, and
up-to-date documentation. [H.7]
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish an Adequate Test Program for Safety-Related 480 VAC Circuit Breakers
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents." Specifically, prior to January 13, 2014, the licensee's preventative and post-maintenance procedures for safety-related 480 VAC Westinghouse DS circuit breakers failed to include manufacturers recommended testing of breaker control circuits at the minimum expected control voltage levels postulated to exist at the device terminals during design basis events. In response to this issue, the
licensee validated that the components had passed their required surveillance tests and remained operable. This finding was entered into the licensee's corrective action program as Condition Reports 11-4895 and 14-738.

The team determined that the failure to include manufacturers recommended testing of safety-related circuit breaker control circuits at the voltages postulated to exist at the device terminals during design basis events or to provide justification for not performing the tests was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant concern. Specifically, the failure to
perform the breaker testing at reduced voltage using minimum expected control voltage levels could cause unacceptable conditions to go undetected. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of problem identification and resolution, evaluation component because the licensee failed to thoroughly evaluate the issue to ensure that resolution addressed causes and extent of condition commensurate with their safety significance. [P.2]
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of Safety Injection Pump Room Cooler
The team identified a Green, non-cited 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

February 13, 2014, documented requirements in purchase specification 3V259VS0005 were not correctly translated into specifications, drawings, and instructions evaluated in calculations MC-06482 and MC-06482A for the safety injection pump room coolers. In response to this issue, the licensee revised the associated calculations and established that the room coolers remained operable. This finding was entered into the licensee's corrective action program as Condition Report 14-2673.

The team determined that the failure to maintain design control of the safety injection pump room cooler was a performance deficiency. This finding was more than minor because it adversely affected 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. Specifically, not maintaining design control and performing a proper heat transfer calculation had the potential to challenge the availability, reliability, and capability of the safety injection pump room cooler and in turn the safety function of safety injection pumps. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance:  Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate the Adequacy of Voltage Available at AF-19 Valve Motor to Close the Valve During Postulated High Energy Line Break Conditions
The team identified a Green, non-cited 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, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions." Specifically, prior to January 28, 2014, the licensee failed to adequately verify by analysis that the AF-19 valve motor had adequate voltage available to close the valve when required during postulated high energy line break conditions. In response to this issue, the licensee performed a preliminary battery sizing and voltage analysis and verified that the valve motor had sufficient voltage to close when required by the failure modes and effects analysis. This finding was entered into the licensee's corrective action program as Condition Report 14-1374.

The team determined that the failure to evaluate and translate the requirements for adequate voltage available at the AF-19 valve motor to close the valve during postulated high energy line break conditions was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the failure to analyze and translate the relevant requirements resulted in a condition where there was a reasonable question on the capability of the valve to close when required during postulated high energy line break conditions. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.

Inspection Report# : 2013007 *(pdf)*

Significance: G Oct 31, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a violation of License Condition 2.E for the failure to correct a noncompliance. Procedure 0POP04-ZO-0001, "Control Room Evacuation," Revision 35, was not consistent with the post-fire safe shutdown analysis in that it failed to ensure the actions met critical time requirements. The licensee failed to implement timely corrective actions to correct this deficiency. Inspection Report 05000498/2011006 and 05000499/2011006 documented a violation involving the failure to implement and maintain in effect all provisions of the approved fire protection program. During this inspection, the team identified that the licensee had failed to restore compliance with its license condition within a reasonable time.

The licensee's failure to implement timely corrective actions to correct conditions adverse to fire protection as required by its Operations Quality Assurance Plan is a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (such as fire) to prevent undesirable consequences. Specifically, the licensee failed to ensure reliability of its post-fire safe shutdown systems by demonstrating that it could achieve safe shutdown following a fire in the control room by using approved actions. The significance of this finding could not be evaluated using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," because the performance deficiency involved a control room fire that led to control room evacuation. A senior reactor analyst determined that the upper bound for the overall change in core damage frequency that resulted from this performance deficiency was 2.702E-7/yr and was not significant with respect to large early release frequency. The analyst therefore determined that this performance deficiency was of very low risk significance (Green). The team determined that the performance deficiency had a cross-cutting aspect in the corrective action component of the problem identification and resolution cross-cutting area because the licensee did not thoroughly evaluate the problem such that resolutions addressed the cause. Specifically, the licensee failed to take adequate corrective actions to ensure that operators could perform all necessary manual actions as approved prior to exceeding the regulatory requirements (P.1(c)).
Inspection Report# : 2012007 *(pdf)*

Barrier Integrity

Significance: G Jun 29, 2013
Identified By: NRC
Item Type: FIN Finding
Inadequate Design Calculations for Spent Fuel Pool Mitigation Strategies
The inspectors identified a Green finding for the licensee's failure to follow Procedure 0PGP04-ZA-0307, "Preparation of Calculations," Revision 4. Specifically, two parts were not followed, step 3.1.5.4 states all design calculations SHALL be identified AND their sources indicated by providing an adequate title/description; and step 3.2.2 which instructs performing a peer check review of the calculation for completeness, clarity, and accuracy. As part of a routine walkdown of the spent fuel pool area, the inspectors identified several issues of concern regarding the licensee's spent fuel pool mitigation strategy equipment which implements the fill and/or spray strategy. Specifically, the as-designed equipment did not match the as-installed configuration and the as-designed calculations did not account for standard engineering practices to ensure that all calculation considerations were taken into account. The

licensee captured these issues in Condition Reports 13-3767 and 13-5006. Corrective actions included updating the calculations to include standard engineering practices and ensuring that the design matched the as-installed configuration.

The failure to follow Procedure 0PGP04-ZA-0307 to ensure an adequate design calculation and review for accuracy was a performance deficiency. This finding was more than minor because it adversely affected the design control attribute of the Barrier Integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers such as fuel cladding protect the public from radionuclide releases caused by accidents or events. The inspectors performed the significance determination process using NRC Inspection Manual Chapter 0609, Attachment 4, “Initial Characterization of Findings,” which evaluates the finding using Appendix L, “B.5.b Significance Determination Process”, “Table 2 - Significance Characterization,” and determined the finding was of very low safety significance because the finding did not result in an unrecoverable mitigating strategy due to the unavailability of post-accident cooling systems for the spent fuel pool. No cross-cutting aspects are assigned to this finding because the calculations were performed in 2007 and 2008 and are not considered indicative of current performance.
Inspection Report# : 2013003 *(pdf)*

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 : May 30, 2014

South Texas 2
2Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Apr 04, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Adequate Screening Criteria in the Boric Acid Corrosion Control Program
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for an inadequate procedure associated with the boric acid corrosion control program (BACCP). Specifically, Procedure 0PGP03-ZE-0133, "Boric Acid Corrosion Control Program," Revision 7, failed to provide adequate screening criteria for boric acid leaks. As a result, the inspectors identified multiple instances where the licensee inadequately screened boric acid leaks by failing to take into account all the characteristics of the leak commensurate to the affected component. The licensee entered the finding into the corrective action program as Condition Report 14-5393.

The inspectors determined that the failure to establish adequate screening criteria for boric acid leaks in Procedure 0PGP03-ZE-0133 was a performance deficiency. The finding is more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1, the finding was determined to be of very low safety significance (Green) because the assessment of degradation did not result in exceeding the RCS leak rate for a small LOCA and did not affect other systems used to mitigate a LOCA resulting in a total loss of their function. The inspectors determined the finding has a cross-cutting aspect in the area of human performance associated with conservative bias because the licensee failed to use decision-making practices that emphasize prudent choices over those that are simply allowable [H.14].
Inspection Report# : 2014002 *(pdf)*

Significance: G Mar 28, 2014
Identified By: NRC
Item Type: VIO Violation
Failure to Accurately Document Completion of a Maintenance Activity
The inspectors identified a violation of 10 CFR 50.9; 10 CFR 50, Appendix B, Criterion XVII; and Technical Specification 6.8.1.a, for failure to accurately document completion of a maintenance activity. Specifically, on November 7, 2011, a maintenance supervisor documented that a work order step to hot torque the Unit 2 pressurizer spray valve hold down bolts had been performed, when this activity was never completed. The NRC's investigation determined that this falsification was deliberate violation that impacted the NRC's ability to perform its regulatory function, so this violation is being cited in accordance with the NRC Enforcement Policy (EA-13-213). This issue was entered into the licensee's corrective action program under Condition Report 14-4633. The individual who falsified the document was subject to administrative action in accordance with the licensee's program, and licensee management reinforced the need to ensure accurate quality records with workers.

The failure to accurately document completion of a maintenance activity was a performance deficiency. The

performance deficiency was more than minor, therefore, a finding, because it affected the initiating events cornerstone, and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using the Inspection Manual Chapter 0609, Appendix A, Exhibit 1, Section A, "LOCA Initiators," the inspectors determined that the finding was of very low safety significance (Green) because the performance deficiency did not result in an actual degradation of the reactor coolant pressure boundary. In addition, this finding was evaluated under traditional enforcement due to the conclusion that it was a deliberate violation that impacted the NRC's ability to perform its regulatory function, and was determined to be a Severity Level IV violation. The finding was not assigned a cross-cutting aspect because it was not representative of current licensee performance in that the violation occurred more than 2 years ago.
Inspection Report# : 2014007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Develop Adequate Procedures for Loss of All Seal Cooling to a Reactor Coolant Pump
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which states, in part, "Instructions, procedures, or drawings shall include appropriate qualitative and quantitative acceptance criteria for determining that important activities have been satisfactorily accomplished." Specifically, prior to January 29, 2014, the licensee failed to include appropriate qualitative and quantitative criteria in emergency operating procedures, off-normal operating procedures, and annunciator response procedures that are used during a loss of all seal cooling to a reactor coolant pump to prevent increased risk of a reactor coolant pump seal loss of coolant accident. In response to this issue, the licensee implemented changes to the affected procedures and communicated the changes to the operating staff. This finding was entered into the licensee's corrective action program as Condition Report 14-1635.

The team determined that the failure to include appropriate qualitative and quantitative criteria in emergency operating procedures, off-normal operating procedures, and annunciator response procedures for a loss of all seal cooling to a reactor cooling pump was a performance deficiency. This finding was more than minor because it adversely affected the Initiating Events Cornerstone attribute of Procedure Quality and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, operating procedures did not contain appropriate attributes to ensure timely action to prevent an increased likelihood of a reactor coolant pump seal loss of coolant accident. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 1, "Initiating Events Screening Questions," the team determined a detailed risk evaluation was necessary because, after a reasonable assessment of degradation, the finding could result in exceeding the reactor coolant system leak rate for a small loss of coolant accident. Therefore, the senior reactor analyst performed a bounding detailed risk evaluation. The analyst determined that the change to the core damage frequency would be less than 1E-7 per year (Green). This finding had a cross-cutting aspect in the area of human performance, training component because the licensee did not provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. [H.9]
Inspection Report# : 2013007 *(pdf)*

Significance: G Dec 31, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Maintain Licensed Operator Examination Integrity
A self revealing Green noncited violation of 10 CFR Part 55.49, "Integrity of Examinations and Tests," was identified for the failure of operations training personnel to ensure the integrity of an operating test scheduled for administration

for an initial licensing examination scheduled for the week of September 30, 2013. This failure resulted in a potential compromise of examination integrity, but did not lead to an actual compromise of the administered examination.

This finding was more than minor because it would have affected examination integrity had it not been detected. However, because no actual compromise of examination integrity occurred, the finding was determined to have very low safety significance. This finding had a cross-cutting aspect in the area of human performance associated with work practices because the licensee did not properly self- and peer check to ensure a potential compromise of examination materials would not occur [H.4(a)].
Inspection Report# : 2013301 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Include Appropriate Acceptance Criteria in a Quality Procedure
The inspectors identified a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for failure to include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Specifically, the licensee did not include sufficient criteria to identify and evaluate new critical tasks created for operator performance on the simulator scenario portion of the biennial requalification examination to enable the evaluators to correctly assess licensed operator performance. The licensee has entered this issue into their corrective action program as Condition Report 2013-13857.

The failure to include appropriate qualitative acceptance criteria in Procedure LOR-GL-002, to ensure evaluators can correctly identify and evaluate critical tasks based on operator performance was a performance deficiency. The performance deficiency was more than minor, therefore, a finding, because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the failure to include the appropriate criteria to identify and evaluate critical tasks during biennial requalification examinations could result in operators returning to licensed operator duties without being properly remediated and retested on performance deficiencies. Using Manual Chapter 0609, Attachment 0609.04, Appendix I, "Operator Requalification Human Performance Significance Determination Process," starting at block 9, the finding was determined to be of very low safety significance (Green) because the finding is associated with licensee administration of an annual requalification operating test. The finding had a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to make safety-significant or risk-significant decisions using a systematic process [H.1(a)].

Inspection Report# : 2013005 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: FIN Finding
Flawed Job Performance Measures
The inspectors identified a finding of very low safety significance for developing and administering an excessive number of flawed job performance measures during the 2012 and 2013 NRC annual operating tests, which resulted in invalidating several operators' NRC annual operating tests. The inspectors reviewed all of the job performance measures that were developed and/or administered to the licensed operator staff for their annual operating tests. Greater than 20 percent of the job performance measures reviewed for both 2012 and 2013 were deemed to be flawed and inappropriate for an NRC-required operating test. This invalidated the operating tests for some of the licensed operators in both years. As part of their corrective action, Condition Report 2013-10673, the licensee retested the operators that were affected after the 2013 test, and analyzed the effect on site-wide human performance errors that

the affected operators may have had after the 2012 operating test—there was no increase in human performance errors attributable to taking the flawed 2012 operating test.

Using Inspection Procedure 71111.11, Appendix C, "Annual Requalification Operating Test Quality," more than 20 percent of the annual operating test job performance measures developed in 2012 and 2013 were flawed; therefore, this was a performance deficiency. In accordance with Manual Chapter 0612, "Power Reactor Inspection Reports," the performance deficiency was more than minor, therefore, a finding because it affected the Initiating Events Cornerstone attribute of Human Performance, and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Manual Chapter 0609, Attachment 0609.04, Appendix I, "Operator Requalification Human Performance Significance Determination Process," starting at block 6, the finding was determined to be of very low safety significance (Green) because: the finding involved operating test quality; less than 40 percent of the job performance measures were flawed; and less than 40 percent of the simulator scenarios were flawed. In addition, the NRC determined the finding had a human performance cross-cutting aspect associated with decision-making because the licensee did not use conservative assumptions in decision making when developing the flawed job performance measures that invalidated several operators' annual operating tests [H.1(b)].

Inspection Report# : 2013005 *(pdf)*

Mitigating Systems

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Evaluate Safety-Related Equipment Electrical Load Requirements when Verifying the Adequacy of Voltage from the Nuclear Steam Supply System Inverter/Rectifier
The team identified a Green, non-cited 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, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions." Specifically, prior to February 11, 2014, the licensee failed to adequately verify by analysis that safety-related nuclear steam supply system instrumentation loads would be capable of operating at the minimum inverter output voltage, when the inverter is fed from the station battery, and when considering the actual voltage drop to the load. In response to this issue, the licensee performed a preliminary voltage drop analysis that supported an immediate operability determination. This finding was entered into the licensee's orrective action program as Condition Report 14-2017.

The team determined that failure to maintain design control of the nuclear steam supply system instrumentation power supply load was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the incorrect analysis resulted in a reasonable question of operability of nuclear steam supply system instrumentation to operate at the minimum inverter output voltage, when the inverter is fed from the station battery, and when the actual voltage drop to the load for that condition was considered. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather.

The team determined that this finding did not have a cross-cutting
aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Sequencing of Maintenance of 4160 VAC Circuit Breakers Prior to As-Found Tests
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents." Specifically, prior to January 13, 2014, the licensee's preventive maintenance Procedures OPMPO5-NA-002, "4160V Gould Breaker Test," and OPMP05-NA-0018 "4160 Volt Gould HK Breaker Overhaul/Lubrication," failed to assure that the 4160 VAC Gould circuit breakers would perform satisfactorily in service when the licensee performed maintenance prior to completing as-found tests to verify the circuit breakers would function properly. In response to this issue, the licensee validated that the components had passed their required surveillance tests and remained operable. This finding was entered into the licensee's corrective action program as Condition Reports 14-738 and 14-1633.

The team determined that failure to establish a test and maintenance program which ensures that safety-related 4160 VAC Gould circuit breakers would perform satisfactorily in service was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the failure to perform as-found tests prior to performing maintenance in preventive
maintenance procedures was a significant programmatic deficiency which could cause unacceptable conditions to go undetected. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of human performance, documentation component because the licensee failed to create and maintain complete, accurate, and
up-to-date documentation. [H.7]
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish an Adequate Test Program for Safety-Related 480 VAC Circuit Breakers
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents." Specifically, prior to January 13, 2014, the licensee's preventative and post-maintenance procedures for safety-related 480 VAC Westinghouse DS circuit breakers failed to include manufacturers recommended testing of breaker control circuits at the minimum expected control voltage levels postulated to exist at the device terminals during design basis events. In response to this issue, the
licensee validated that the components had passed their required surveillance tests and remained operable. This

finding was entered into the licensee's corrective action program as Condition Reports 11-4895 and 14-738.

The team determined that the failure to include manufacturers recommended testing of safety-related circuit breaker control circuits at the voltages postulated to exist at the device terminals during design basis events or to provide justification for not performing the tests was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant concern. Specifically, the failure to perform the breaker testing at reduced voltage using minimum expected control voltage levels could cause unacceptable conditions to go undetected. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of problem identification and resolution, evaluation component because the licensee failed to thoroughly evaluate the issue to ensure that resolution addressed causes and extent of condition commensurate with their safety significance. [P.2]
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of Safety Injection Pump Room Cooler
The team identified a Green, non-cited 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 February 13, 2014, documented requirements in purchase specification 3V259VS0005 were not correctly translated into specifications, drawings, and instructions evaluated in calculations MC-06482 and MC-06482A for the safety injection pump room coolers. In response to this issue, the licensee revised the associated calculations and established that the room coolers remained operable. This finding was entered into the licensee's corrective action program as Condition Report 14-2673.

The team determined that the failure to maintain design control of the safety injection pump room cooler was a performance deficiency. This finding was more than minor because it adversely affected 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. Specifically, not maintaining design control and performing a proper heat transfer calculation had the potential to challenge the availability, reliability, and capability of the safety injection pump room cooler and in turn the safety function of safety injection pumps. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC

Item Type: NCV NonCited Violation
Failure to Evaluate the Adequacy of Voltage Available at AF-19 Valve Motor to Close the Valve During Postulated High Energy Line Break Conditions
The team identified a Green, non-cited 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, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions." Specifically, prior to January 28, 2014, the licensee failed to adequately verify by analysis that the AF-19 valve motor had adequate voltage available to close the valve when required during postulated high energy line break conditions. In response to this issue, the licensee performed a preliminary battery sizing and voltage analysis and verified that the valve motor had sufficient voltage to close when required by the failure modes and effects analysis. This finding was entered into the licensee's corrective action program as Condition Report 14-1374.

The team determined that the failure to evaluate and translate the requirements for adequate voltage available at the AF-19 valve motor to close the valve during postulated high energy line break conditions was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the failure to analyze and translate the relevant requirements resulted in a condition where there was a reasonable question on the capability of the valve to close when required during postulated high energy line break conditions. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Oct 31, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a violation of License Condition 2.E for the failure to correct a noncompliance. Procedure 0POP04-ZO-0001, "Control Room Evacuation," Revision 35, was not consistent with the post-fire safe shutdown analysis in that it failed to ensure the actions met critical time requirements. The licensee failed to implement timely corrective actions to correct this deficiency. Inspection Report 05000498/2011006 and 05000499/2011006 documented a violation involving the failure to implement and maintain in effect all provisions of the approved fire protection program. During this inspection, the team identified that the licensee had failed to restore compliance with its license condition within a reasonable time.

The licensee's failure to implement timely corrective actions to correct conditions adverse to fire protection as required by its Operations Quality Assurance Plan is a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (such as fire) to prevent undesirable consequences. Specifically, the licensee failed to ensure reliability of its post-fire safe shutdown systems by demonstrating that it could achieve safe shutdown following a fire in the control room by using approved actions. The significance of this finding could not be evaluated using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," because the performance deficiency involved a control room fire that led to control room evacuation. A senior reactor analyst determined that the upper bound for the overall change in core damage frequency that resulted from this performance

deficiency was 2.702E-7/yr and was not significant with respect to large early release frequency. The analyst therefore determined that this performance deficiency was of very low risk significance (Green). The team determined that the performance deficiency had a cross-cutting aspect in the corrective action component of the problem identification and resolution cross-cutting area because the licensee did not thoroughly evaluate the problem such that resolutions addressed the cause. Specifically, the licensee failed to take adequate corrective actions to ensure that operators could perform all necessary manual actions as approved prior to exceeding the regulatory requirements (P.1(c)).
Inspection Report# : 2012007 *(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 : August 29, 2014

South Texas 2
3Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Apr 04, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Adequate Screening Criteria in the Boric Acid Corrosion Control Program
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for an inadequate procedure associated with the boric acid corrosion control program (BACCP). Specifically, Procedure 0PGP03-ZE-0133, "Boric Acid Corrosion Control Program," Revision 7, failed to provide adequate screening criteria for boric acid leaks. As a result, the inspectors identified multiple instances where the licensee inadequately screened boric acid leaks by failing to take into account all the characteristics of the leak commensurate to the affected component. The licensee entered the finding into the corrective action program as Condition Report 14-5393.

The inspectors determined that the failure to establish adequate screening criteria for boric acid leaks in Procedure 0PGP03-ZE-0133 was a performance deficiency. The finding is more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1, the finding was determined to be of very low safety significance (Green) because the assessment of degradation did not result in exceeding the RCS leak rate for a small LOCA and did not affect other systems used to mitigate a LOCA resulting in a total loss of their function. The inspectors determined the finding has a cross-cutting aspect in the area of human performance associated with conservative bias because the licensee failed to use decision-making practices that emphasize prudent choices over those that are simply allowable [H.14].
Inspection Report# : 2014002 *(pdf)*

Significance: G Mar 28, 2014
Identified By: NRC
Item Type: VIO Violation
Failure to Accurately Document Completion of a Maintenance Activity
The inspectors identified a violation of 10 CFR 50.9; 10 CFR 50, Appendix B, Criterion XVII; and Technical Specification 6.8.1.a, for failure to accurately document completion of a maintenance activity. Specifically, on November 7, 2011, a maintenance supervisor documented that a work order step to hot torque the Unit 2 pressurizer spray valve hold down bolts had been performed, when this activity was never completed. The NRC's investigation determined that this falsification was deliberate violation that impacted the NRC's ability to perform its regulatory function, so this violation is being cited in accordance with the NRC Enforcement Policy (EA-13-213). This issue was entered into the licensee's corrective action program under Condition Report 14-4633. The individual who falsified the document was subject to administrative action in accordance with the licensee's program, and licensee management reinforced the need to ensure accurate quality records with workers.

The failure to accurately document completion of a maintenance activity was a performance deficiency. The

performance deficiency was more than minor, therefore, a finding, because it affected the initiating events cornerstone, and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using the Inspection Manual Chapter 0609, Appendix A, Exhibit 1, Section A, "LOCA Initiators," the inspectors determined that the finding was of very low safety significance (Green) because the performance deficiency did not result in an actual degradation of the reactor coolant pressure boundary. In addition, this finding was evaluated under traditional enforcement due to the conclusion that it was a deliberate violation that impacted the NRC's ability to perform its regulatory function, and was determined to be a Severity Level IV violation. The finding was not assigned a cross-cutting aspect because it was not representative of current licensee performance in that the violation occurred more than 2 years ago.
Inspection Report# : 2014007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Develop Adequate Procedures for Loss of All Seal Cooling to a Reactor Coolant Pump
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which states, in part, "Instructions, procedures, or drawings shall include appropriate qualitative and quantitative acceptance criteria for determining that important activities have been satisfactorily accomplished." Specifically, prior to January 29, 2014, the licensee failed to include appropriate qualitative and quantitative criteria in emergency operating procedures, off-normal operating procedures, and annunciator response procedures that are used during a loss of all seal cooling to a reactor coolant pump to prevent increased risk of a reactor coolant pump seal loss of coolant accident. In response to this issue, the licensee implemented changes to the affected procedures and communicated the changes to the operating staff. This finding was entered into the licensee's corrective action program as Condition Report 14-1635.

The team determined that the failure to include appropriate qualitative and quantitative criteria in emergency operating procedures, off-normal operating procedures, and annunciator response procedures for a loss of all seal cooling to a reactor cooling pump was a performance deficiency. This finding was more than minor because it adversely affected the Initiating Events Cornerstone attribute of Procedure Quality and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, operating procedures did not contain appropriate attributes to ensure timely action to prevent an increased likelihood of a reactor coolant pump seal loss of coolant accident. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 1, "Initiating Events Screening Questions," the team determined a detailed risk evaluation was necessary because, after a reasonable assessment of degradation, the finding could result in exceeding the reactor coolant system leak rate for a small loss of coolant accident. Therefore, the senior reactor analyst performed a bounding detailed risk evaluation. The analyst determined that the change to the core damage frequency would be less than 1E-7 per year (Green). This finding had a cross-cutting aspect in the area of human performance, training component because the licensee did not provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. [H.9]
Inspection Report# : 2013007 *(pdf)*

Significance: G Dec 31, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Maintain Licensed Operator Examination Integrity
A self revealing Green noncited violation of 10 CFR Part 55.49, "Integrity of Examinations and Tests," was identified for the failure of operations training personnel to ensure the integrity of an operating test scheduled for administration

for an initial licensing examination scheduled for the week of September 30, 2013. This failure resulted in a potential compromise of examination integrity, but did not lead to an actual compromise of the administered examination.

This finding was more than minor because it would have affected examination integrity had it not been detected. However, because no actual compromise of examination integrity occurred, the finding was determined to have very low safety significance. This finding had a cross-cutting aspect in the area of human performance associated with work practices because the licensee did not properly self- and peer check to ensure a potential compromise of examination materials would not occur [H.4(a)].
Inspection Report# : 2013301 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Include Appropriate Acceptance Criteria in a Quality Procedure
The inspectors identified a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for failure to include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Specifically, the licensee did not include sufficient criteria to identify and evaluate new critical tasks created for operator performance on the simulator scenario portion of the biennial requalification examination to enable the evaluators to correctly assess licensed operator performance. The licensee has entered this issue into their corrective action program as Condition Report 2013-13857.

The failure to include appropriate qualitative acceptance criteria in Procedure LOR-GL-002, to ensure evaluators can correctly identify and evaluate critical tasks based on operator performance was a performance deficiency. The performance deficiency was more than minor, therefore, a finding, because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the failure to include the appropriate criteria to identify and evaluate critical tasks during biennial requalification examinations could result in operators returning to licensed operator duties without being properly remediated and retested on performance deficiencies. Using Manual Chapter 0609, Attachment 0609.04, Appendix I, "Operator Requalification Human Performance Significance Determination Process," starting at block 9, the finding was determined to be of very low safety significance (Green) because the finding is associated with licensee administration of an annual requalification operating test. The finding had a cross-cutting aspect in the area of human performance associated with the decision-making component because the licensee failed to make safety-significant or risk-significant decisions using a systematic process [H.1(a)].

Inspection Report# : 2013005 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: FIN Finding
Flawed Job Performance Measures
The inspectors identified a finding of very low safety significance for developing and administering an excessive number of flawed job performance measures during the 2012 and 2013 NRC annual operating tests, which resulted in invalidating several operators' NRC annual operating tests. The inspectors reviewed all of the job performance measures that were developed and/or administered to the licensed operator staff for their annual operating tests. Greater than 20 percent of the job performance measures reviewed for both 2012 and 2013 were deemed to be flawed and inappropriate for an NRC-required operating test. This invalidated the operating tests for some of the licensed operators in both years. As part of their corrective action, Condition Report 2013-10673, the licensee retested the operators that were affected after the 2013 test, and analyzed the effect on site-wide human performance errors that

the affected operators may have had after the 2012 operating test—there was no increase in human performance errors attributable to taking the flawed 2012 operating test.

Using Inspection Procedure 71111.11, Appendix C, "Annual Requalification Operating Test Quality," more than 20 percent of the annual operating test job performance measures developed in 2012 and 2013 were flawed; therefore, this was a performance deficiency. In accordance with Manual Chapter 0612, "Power Reactor Inspection Reports," the performance deficiency was more than minor, therefore, a finding because it affected the Initiating Events Cornerstone attribute of Human Performance, and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Manual Chapter 0609, Attachment 0609.04, Appendix I, "Operator Requalification Human Performance Significance Determination Process," starting at block 6, the finding was determined to be of very low safety significance (Green) because: the finding involved operating test quality; less than 40 percent of the job performance measures were flawed; and less than 40 percent of the simulator scenarios were flawed. In addition, the NRC determined the finding had a human performance cross-cutting aspect associated with decision-making because the licensee did not use conservative assumptions in decision making when developing the flawed job performance measures that invalidated several operators' annual operating tests [H.1(b)].

Inspection Report# : 2013005 *(pdf)*

Mitigating Systems

Significance: G Sep 25, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Loop Flow Test
The team identified a non-cited violation of Technical Specification 6.8.1.d for the failure to implement and maintain written procedures for fire protection program implementation. Specifically, the licensee failed to have procedures for and to flow test the portions of the underground piping that supplied water to the diesel generator buildings since the initial startup test. The licensee initiated actions to perform the flow testing within two months and entered the deficiency into their corrective action program as Condition Report 14-17098.

The failure to conduct flow testing of the entire underground fire protection piping loop was a performance deficiency. This performance deficiency was more than minor because it was associated with the protection against external factors attribute (fire) and 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. Specifically, the failure to performance test the underground fire protection piping loops supplying the emergency diesel generator buildings for both units did not demonstrate the continued capability to deliver adequate flow and pressure to the fire suppression systems supplying those buildings.

The team evaluated the finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," because it affected fire protection defense-in-depth strategies involving fire water supply. Using Appendix F, the team determined that the finding screened to very low safety significance. Specifically, the finding did not prevent the reactor from achieving safe shutdown since only one safe shutdown train would be affected at a time. Since these underground fire protection piping loops had not been flow tested since initial installation and nothing caused the licensee to reevaluate the test, the team determined that this failure did not reflect current performance.
Inspection Report# : 2014008 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Evaluate Safety-Related Equipment Electrical Load Requirements when Verifying the Adequacy of Voltage from the Nuclear Steam Supply System Inverter/Rectifier
The team identified a Green, non-cited 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, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions." Specifically, prior to February 11, 2014, the licensee failed to adequately verify by analysis that safety-related nuclear steam supply system instrumentation loads would be capable of operating at the minimum inverter output voltage, when the inverter is fed from the station battery, and when considering the actual voltage drop to the load. In response to this issue, the licensee performed a preliminary voltage drop analysis that supported an immediate operability determination. This finding was entered into the licensee's orrective action program as Condition Report 14-2017.

The team determined that failure to maintain design control of the nuclear steam supply system instrumentation power supply load was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the incorrect analysis resulted in a reasonable question of operability of nuclear steam supply system instrumentation to operate at the minimum inverter output voltage, when the inverter is fed from the station battery, and when the actual voltage drop to the load for that condition was considered. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Sequencing of Maintenance of 4160 VAC Circuit Breakers Prior to As-Found Tests
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents." Specifically, prior to January 13, 2014, the licensee's preventive maintenance Procedures OPMPO5-NA-002, "4160V Gould Breaker Test," and OPMP05-NA-0018 "4160 Volt Gould HK Breaker Overhaul/Lubrication," failed to assure that the 4160 VAC Gould circuit breakers would perform satisfactorily in service when the licensee performed maintenance prior to completing as-found tests to verify the circuit breakers would function properly. In response to this issue, the licensee validated that the components had passed their required surveillance tests and remained operable. This finding was entered into the licensee's corrective action program as Condition Reports 14-738 and 14-1633.

The team determined that failure to establish a test and maintenance program which ensures that safety-related 4160 VAC Gould circuit breakers would perform satisfactorily in service was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the

failure to perform as-found tests prior to performing maintenance in preventive maintenance procedures was a significant programmatic deficiency which could cause unacceptable conditions to go undetected. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of human performance, documentation component because the licensee failed to create and maintain complete, accurate, and up-to-date documentation. [H.7]
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish an Adequate Test Program for Safety-Related 480 VAC Circuit Breakers
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents." Specifically, prior to January 13, 2014, the licensee's preventative and post-maintenance procedures for safety-related 480 VAC Westinghouse DS circuit breakers failed to include manufacturers recommended testing of breaker control circuits at the minimum expected control voltage levels postulated to exist at the device terminals during design basis events. In response to this issue, the licensee validated that the components had passed their required surveillance tests and remained operable. This finding was entered into the licensee's corrective action program as Condition Reports 11-4895 and 14-738.

The team determined that the failure to include manufacturers recommended testing of safety-related circuit breaker control circuits at the voltages postulated to exist at the device terminals during design basis events or to provide justification for not performing the tests was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant concern. Specifically, the failure to perform the breaker testing at reduced voltage using minimum expected control voltage levels could cause unacceptable conditions to go undetected. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of problem identification and resolution, evaluation component because the licensee failed to thoroughly evaluate the issue to ensure that resolution addressed causes and extent of condition commensurate with their safety significance. [P.2]
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of Safety Injection Pump Room Cooler
The team identified a Green, non-cited 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 February 13, 2014, documented requirements in purchase specification 3V259VS0005 were not correctly translated into specifications, drawings, and instructions evaluated in calculations MC-06482 and MC-06482A for the safety injection pump room coolers. In response to this issue, the licensee revised the associated calculations and established that the room coolers remained operable. This finding was entered into the licensee’s corrective action program as Condition Report 14-2673.

The team determined that the failure to maintain design control of the safety injection pump room cooler was a performance deficiency. This finding was more than minor because it adversely affected 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. Specifically, not maintaining design control and performing a proper heat transfer calculation had the potential to challenge the availability, reliability, and capability of the safety injection pump room cooler and in turn the safety function of safety injection pumps. In accordance with Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated June 19, 2012, Exhibit 2, “Mitigating Systems Screening Questions,” the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate the Adequacy of Voltage Available at AF-19 Valve Motor to Close the Valve During Postulated High Energy Line Break Conditions
The team identified a Green, non-cited 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, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions.” Specifically, prior to January 28, 2014, the licensee failed to adequately verify by analysis that the AF-19 valve motor had adequate voltage available to close the valve when required during postulated high energy line break conditions. In response to this issue, the licensee performed a preliminary battery sizing and voltage analysis and verified that the valve motor had sufficient voltage to close when required by the failure modes and effects analysis. This finding was entered into the licensee’s corrective action program as Condition Report 14-1374.

The team determined that the failure to evaluate and translate the requirements for adequate voltage available at the AF-19 valve motor to close the valve during postulated high energy line break conditions was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the failure to analyze and translate the relevant requirements resulted in a condition where there was a reasonable question on the capability of the valve to close when required during postulated high energy line break conditions. In accordance with Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated June 19, 2012, Exhibit 2, “Mitigating Systems Screening Questions,” the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding

did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Oct 31, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a violation of License Condition 2.E for the failure to correct a noncompliance. Procedure 0POP04-ZO-0001, "Control Room Evacuation," Revision 35, was not consistent with the post-fire safe shutdown analysis in that it failed to ensure the actions met critical time requirements. The licensee failed to implement timely corrective actions to correct this deficiency. Inspection Report 05000498/2011006 and 05000499/2011006 documented a violation involving the failure to implement and maintain in effect all provisions of the approved fire protection program. During this inspection, the team identified that the licensee had failed to restore compliance with its license condition within a reasonable time.

The licensee's failure to implement timely corrective actions to correct conditions adverse to fire protection as required by its Operations Quality Assurance Plan is a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (such as fire) to prevent undesirable consequences. Specifically, the licensee failed to ensure reliability of its post-fire safe shutdown systems by demonstrating that it could achieve safe shutdown following a fire in the control room by using approved actions. The significance of this finding could not be evaluated using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," because the performance deficiency involved a control room fire that led to control room evacuation. A senior reactor analyst determined that the upper bound for the overall change in core damage frequency that resulted from this performance deficiency was 2.702E-7/yr and was not significant with respect to large early release frequency. The analyst therefore determined that this performance deficiency was of very low risk significance (Green). The team determined that the performance deficiency had a cross-cutting aspect in the corrective action component of the problem identification and resolution cross-cutting area because the licensee did not thoroughly evaluate the problem such that resolutions addressed the cause. Specifically, the licensee failed to take adequate corrective actions to ensure that operators could perform all necessary manual actions as approved prior to exceeding the regulatory requirements (P.1(c)).
Inspection Report# : 2012007 *(pdf)*

Barrier Integrity

Significance: G Sep 28, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify a Condition Adverse to Quality for the Control Room Envelope
The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," involving the licensee's failure to promptly identify and correct a condition adverse to quality. Specifically, following the identification of general corrosion on the Units 1 and 2 control room envelope heating, ventilation, and air conditioning ducts, the licensee failed to identify that moisture condensing and collecting was a condition adverse to quality and failed to correct the condition. As a result, corrosion caused through-wall leaks in 2008 and 2014. The licensee entered this into the corrective action program as Condition Report 14-17723, and planned to evaluate and

address the issue.

The failure to promptly identify and correct a condition adverse to quality is a performance deficiency. The performance deficiency was more than minor because it is associated with the barrier performance attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective. Using NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination Process (SDP) for Findings at Power," dated June 19, 2012, the finding was determined to be of very low safety significance (Green) because the finding only represented a degradation of the radiological barrier function provided for the control room. The finding has a cross-cutting aspect in the area of problem identification and resolution associated with evaluation, because the licensee failed to thoroughly evaluate the issue to ensure that the resolution addressed the cause of extent of condition commensurate with the safety significance [P2].
Inspection Report# : 2014004 *(pdf)*

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

South Texas 2
4Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Apr 04, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Adequate Screening Criteria in the Boric Acid Corrosion Control Program
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for an inadequate procedure associated with the boric acid corrosion control program (BACCP). Specifically, Procedure 0PGP03-ZE-0133, "Boric Acid Corrosion Control Program," Revision 7, failed to provide adequate screening criteria for boric acid leaks. As a result, the inspectors identified multiple instances where the licensee inadequately screened boric acid leaks by failing to take into account all the characteristics of the leak commensurate to the affected component. The licensee entered the finding into the corrective action program as Condition Report 14-5393.

The inspectors determined that the failure to establish adequate screening criteria for boric acid leaks in Procedure 0PGP03-ZE-0133 was a performance deficiency. The finding is more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1, the finding was determined to be of very low safety significance (Green) because the assessment of degradation did not result in exceeding the RCS leak rate for a small LOCA and did not affect other systems used to mitigate a LOCA resulting in a total loss of their function. The inspectors determined the finding has a cross-cutting aspect in the area of human performance associated with conservative bias because the licensee failed to use decision-making practices that emphasize prudent choices over those that are simply allowable [H.14].
Inspection Report# : 2014002 *(pdf)*

Significance: G Mar 28, 2014
Identified By: NRC
Item Type: VIO Violation
Failure to Accurately Document Completion of a Maintenance Activity
The inspectors identified a violation of 10 CFR 50.9; 10 CFR 50, Appendix B, Criterion XVII; and Technical Specification 6.8.1.a, for failure to accurately document completion of a maintenance activity. Specifically, on November 7, 2011, a maintenance supervisor documented that a work order step to hot torque the Unit 2 pressurizer spray valve hold down bolts had been performed, when this activity was never completed. The NRC's investigation determined that this falsification was deliberate violation that impacted the NRC's ability to perform its regulatory function, so this violation is being cited in accordance with the NRC Enforcement Policy (EA-13-213). This issue was entered into the licensee's corrective action program under Condition Report 14-4633. The individual who falsified the document was subject to administrative action in accordance with the licensee's program, and licensee management reinforced the need to ensure accurate quality records with workers.

The failure to accurately document completion of a maintenance activity was a performance deficiency. The

performance deficiency was more than minor, therefore, a finding, because it affected the initiating events cornerstone, and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using the Inspection Manual Chapter 0609, Appendix A, Exhibit 1, Section A, "LOCA Initiators," the inspectors determined that the finding was of very low safety significance (Green) because the performance deficiency did not result in an actual degradation of the reactor coolant pressure boundary. In addition, this finding was evaluated under traditional enforcement due to the conclusion that it was a deliberate violation that impacted the NRC's ability to perform its regulatory function, and was determined to be a Severity Level IV violation. The finding was not assigned a cross-cutting aspect because it was not representative of current licensee performance in that the violation occurred more than 2 years ago.
Inspection Report# : 2014007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Develop Adequate Procedures for Loss of All Seal Cooling to a Reactor Coolant Pump
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which states, in part, "Instructions, procedures, or drawings shall include appropriate qualitative and quantitative acceptance criteria for determining that important activities have been satisfactorily accomplished." Specifically, prior to January 29, 2014, the licensee failed to include appropriate qualitative and quantitative criteria in emergency operating procedures, off-normal operating procedures, and annunciator response procedures that are used during a loss of all seal cooling to a reactor coolant pump to prevent increased risk of a reactor coolant pump seal loss of coolant accident. In response to this issue, the licensee implemented changes to the affected procedures and communicated the changes to the operating staff. This finding was entered into the licensee's corrective action program as Condition Report 14-1635.

The team determined that the failure to include appropriate qualitative and quantitative criteria in emergency operating procedures, off-normal operating procedures, and annunciator response procedures for a loss of all seal cooling to a reactor cooling pump was a performance deficiency. This finding was more than minor because it adversely affected the Initiating Events Cornerstone attribute of Procedure Quality and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, operating procedures did not contain appropriate attributes to ensure timely action to prevent an increased likelihood of a reactor coolant pump seal loss of coolant accident. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 1, "Initiating Events Screening Questions," the team determined a detailed risk evaluation was necessary because, after a reasonable assessment of degradation, the finding could result in exceeding the reactor coolant system leak rate for a small loss of coolant accident. Therefore, the senior reactor analyst performed a bounding detailed risk evaluation. The analyst determined that the change to the core damage frequency would be less than 1E-7 per year (Green). This finding had a cross-cutting aspect in the area of human performance, training component because the licensee did not provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. [H.9]
Inspection Report# : 2013007 *(pdf)*

Mitigating Systems

Significance: G Sep 25, 2014

Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Loop Flow Test
The team identified a non-cited violation of Technical Specification 6.8.1.d for the failure to implement and maintain written procedures for fire protection program implementation. Specifically, the licensee failed to have procedures for and to flow test the portions of the underground piping that supplied water to the diesel generator buildings since the initial startup test. The licensee initiated actions to perform the flow testing within two months and entered the deficiency into their corrective action program as Condition Report 14-17098.

The failure to conduct flow testing of the entire underground fire protection piping loop was a performance deficiency. This performance deficiency was more than minor because it was associated with the protection against external factors attribute (fire) and 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. Specifically, the failure to performance test the underground fire protection piping loops supplying the emergency diesel generator buildings for both units did not demonstrate the continued capability to deliver adequate flow and pressure to the fire suppression systems supplying those buildings.

The team evaluated the finding using Inspection Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” because it affected fire protection defense-in-depth strategies involving fire water supply. Using Appendix F, the team determined that the finding screened to very low safety significance. Specifically, the finding did not prevent the reactor from achieving safe shutdown since only one safe shutdown train would be affected at a time. Since these underground fire protection piping loops had not been flow tested since initial installation and nothing caused the licensee to reevaluate the test, the team determined that this failure did not reflect current performance.
Inspection Report# : 2014008 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Evaluate Safety-Related Equipment Electrical Load Requirements when Verifying the Adequacy of Voltage from the Nuclear Steam Supply System Inverter/Rectifier
The team identified a Green, non-cited 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, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions.” Specifically, prior to February 11, 2014, the licensee failed to adequately verify by analysis that safety-related nuclear steam supply system instrumentation loads would be capable of operating at the minimum inverter output voltage, when the inverter is fed from the station battery, and when considering the actual voltage drop to the load. In response to this issue, the licensee performed a preliminary voltage drop analysis that supported an immediate operability determination. This finding was entered into the licensee’s orrective action program as Condition Report 14-2017.

The team determined that failure to maintain design control of the nuclear steam supply system instrumentation power supply load was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the incorrect analysis resulted in a reasonable question of operability of nuclear steam supply system instrumentation to operate at the minimum inverter output voltage, when the inverter is fed from the station battery, and when the actual voltage drop to the load for that condition was considered. In accordance with Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated June 19, 2012, Exhibit 2, “Mitigating Systems Screening Questions,” the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an

actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting
aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Sequencing of Maintenance of 4160 VAC Circuit Breakers Prior to As-Found Tests
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents." Specifically, prior to January 13, 2014, the licensee's preventive maintenance Procedures OPMPO5-NA-002, "4160V Gould Breaker Test," and OPMP05-NA-0018 "4160 Volt Gould HK Breaker Overhaul/Lubrication," failed to assure that the 4160 VAC Gould circuit breakers would perform satisfactorily in service when the licensee performed maintenance prior to completing as-found tests to verify the circuit breakers would function properly. In response to this issue, the licensee validated that the components had passed their required surveillance tests and remained operable. This finding was entered into the licensee's corrective action program as Condition Reports 14-738 and 14-1633.

The team determined that failure to establish a test and maintenance program which ensures that safety-related 4160 VAC Gould circuit breakers would perform satisfactorily in service was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the failure to perform as-found tests prior to performing maintenance in preventive
maintenance procedures was a significant programmatic deficiency which could cause unacceptable conditions to go undetected. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of human performance, documentation component because the licensee failed to create and maintain complete, accurate, and
up-to-date documentation. [H.7]
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish an Adequate Test Program for Safety-Related 480 VAC Circuit Breakers
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents." Specifically, prior to January 13, 2014, the licensee's preventative and post-maintenance procedures for safety-related 480 VAC Westinghouse DS circuit breakers failed to include manufacturers recommended testing of breaker control circuits at the minimum expected control voltage levels postulated to exist at the device terminals during design basis

events. In response to this issue, the
licensee validated that the components had passed their required surveillance tests and remained operable. This finding was entered into the licensee's corrective action program as Condition Reports 11-4895 and 14-738.

The team determined that the failure to include manufacturers recommended testing of safety-related circuit breaker control circuits at the voltages postulated to exist at the device terminals during design basis events or to provide justification for not performing the tests was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant concern. Specifically, the failure to
perform the breaker testing at reduced voltage using minimum expected control voltage levels could cause unacceptable conditions to go undetected. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a crosscutting aspect in the area of problem identification and resolution, evaluation component because the licensee failed to thoroughly evaluate the issue to ensure that resolution addressed causes and extent of condition commensurate with their safety significance. [P.2]
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Control of Safety Injection Pump Room Cooler
The team identified a Green, non-cited 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 February 13, 2014, documented requirements in purchase specification 3V259VS0005 were not correctly translated into specifications, drawings, and instructions evaluated in calculations MC-06482 and MC-06482A for the safety injection pump room coolers. In response to this issue, the licensee revised the associated calculations and established that the room coolers remained operable. This finding was entered into the licensee's corrective action program as Condition Report 14-2673.

The team determined that the failure to maintain design control of the safety injection pump room cooler was a performance deficiency. This finding was more than minor because it adversely affected 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. Specifically, not maintaining design control and performing a proper heat transfer calculation had the potential to challenge the availability, reliability, and capability of the safety injection pump room cooler and in turn the safety function of safety injection pumps. In accordance with Inspection Manual Chapter 0609,
Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Feb 06, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate the Adequacy of Voltage Available at AF-19 Valve Motor to Close the Valve During Postulated High Energy Line Break Conditions
The team identified a Green, non-cited 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, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions." Specifically, prior to January 28, 2014, the licensee failed to adequately verify by analysis that the AF-19 valve motor had adequate voltage available to close the valve when required during postulated high energy line break conditions. In response to this issue, the licensee performed a preliminary battery sizing and voltage analysis and verified that the valve motor had sufficient voltage to close when required by the failure modes and effects analysis. This finding was entered into the licensee's corrective action program as Condition Report 14-1374.

The team determined that the failure to evaluate and translate the requirements for adequate voltage available at the AF-19 valve motor to close the valve during postulated high energy line break conditions was a performance deficiency. This finding was more than minor because if left uncorrected, it would lead to a more significant safety concern. Specifically, the failure to analyze and translate the relevant requirements resulted in a condition where there was a reasonable question on the capability of the valve to close when required during postulated high energy line break conditions. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G Oct 31, 2012
Identified By: NRC
Item Type: VIO Violation
Failure to Timely Correct Conditions Adverse to Fire Protection
The team identified a violation of License Condition 2.E for the failure to correct a noncompliance. Procedure 0POP04-ZO-0001, "Control Room Evacuation," Revision 35, was not consistent with the post-fire safe shutdown analysis in that it failed to ensure the actions met critical time requirements. The licensee failed to implement timely corrective actions to correct this deficiency. Inspection Report 05000498/2011006 and 05000499/2011006 documented a violation involving the failure to implement and maintain in effect all provisions of the approved fire protection program. During this inspection, the team identified that the licensee had failed to restore compliance with its license condition within a reasonable time.

The licensee's failure to implement timely corrective actions to correct conditions adverse to fire protection as required by its Operations Quality Assurance Plan is a performance deficiency. This performance deficiency was of more than minor safety significance because it was associated with the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events (such as fire) to prevent undesirable consequences. Specifically, the licensee failed to ensure reliability of its post-fire safe shutdown systems by demonstrating that it could achieve safe shutdown following a fire in the control room by using approved actions. The significance of this finding could not be evaluated using

Inspection Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” because the performance deficiency involved a control room fire that led to control room evacuation. A senior reactor analyst determined that the upper bound for the overall change in core damage frequency that resulted from this performance deficiency was 2.702E-7/yr and was not significant with respect to large early release frequency. The analyst therefore determined that this performance deficiency was of very low risk significance (Green). The team determined that the performance deficiency had a cross-cutting aspect in the corrective action component of the problem identification and resolution cross-cutting area because the licensee did not thoroughly evaluate the problem such that resolutions addressed the cause. Specifically, the licensee failed to take adequate corrective actions to ensure that operators could perform all necessary manual actions as approved prior to exceeding the regulatory requirements (P.1(c)).
Inspection Report# : 2012007 *(pdf)*

Barrier Integrity

Significance: G Sep 28, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify a Condition Adverse to Quality for the Control Room Envelope
The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” involving the licensee’s failure to promptly identify and correct a condition adverse to quality. Specifically, following the identification of general corrosion on the Units 1 and 2 control room envelope heating, ventilation, and air conditioning ducts, the licensee failed to identify that moisture condensing and collecting was a condition adverse to quality and failed to correct the condition. As a result, corrosion caused through-wall leaks in 2008 and 2014. The licensee entered this into the corrective action program as Condition Report 14-17723, and planned to evaluate and address the issue.

The failure to promptly identify and correct a condition adverse to quality is a performance deficiency. The performance deficiency was more than minor because it is associated with the barrier performance attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective. Using NRC Inspection Manual Chapter 0609, Appendix A, “Significance Determination Process (SDP) for Findings at Power,” dated June 19, 2012, the finding was determined to be of very low safety significance (Green) because the finding only represented a degradation of the radiological barrier function provided for the control room. The finding has a cross-cutting aspect in the area of problem identification and resolution associated with evaluation, because the licensee failed to thoroughly evaluate the issue to ensure that the resolution addressed the cause of extent of condition commensurate with the safety significance [P2].
Inspection Report# : 2014004 *(pdf)*

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

Significance: G Dec 18, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Proper Material Package Searches to Ensure Identification Prior to Entry into Protected Area
The team identified a non-cited violation of 10 CFR 73.55(h)(3)(i) for the failure to properly search personnel items (lunch boxes, briefcases, packages) before granting access to protected areas. Specifically, security personnel did not follow Security Instruction 2101, "Access Control," by allowing owners of packages to manipulate their packages when officers needed to search those packages for contraband prior to gaining entry into the protected area. The licensee entered the issue into the corrective action program as Condition Report 14-22811, developed, and reviewed a pre-job brief specifically for search train requirements with every oncoming officer, and covered management expectations and procedure details at all shift turnovers.

The failure to follow Security Instruction 2101 "Access Control," requirements by allowing the owners (non-security officers) to manipulate those packages that needed to be hand inspected when x-ray inspection reveals complex images or suspicious or unidentifiable images was a performance deficiency. The performance deficiency is more than minor because it was associated with the Access Control attribute and adversely affected the Safeguards/Security cornerstone objective to provide assurance that the licensee's security system uses a defense in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats, and therefore a finding. The finding adversely affected the cornerstone objective because it could have resulted in undetected weapons or contraband being taken into the protected and vital areas.

Using the Physical Protection Significance Determination Process, the inspector determined that the cumulative total for the finding was two points. This was calculated by factoring the impact area (Vital Area) against Tier I element 71130.02-02.02(c) Search Activities, under the Access Control attribute. Because the calculated point total did not exceed the range for a Green determination (zero to six points), the inspector determined the finding to be of very low security significance. The inspectors determined that this finding has a cross-cutting aspect in the human performance area associated with complacency in that security force personnel did not implement appropriate error reduction tools due to the repetitive nature of the search train activities and the expectation of successful outcomes H.12.

Inspection Report# : 2014010 *(pdf)*

Last modified : February 26, 2015

South Texas 2
1Q/2015 Plant Inspection Findings

Initiating Events

Significance: G Apr 04, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Establish Adequate Screening Criteria in the Boric Acid Corrosion Control Program
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for an inadequate procedure associated with the boric acid corrosion control program (BACCP). Specifically, Procedure 0PGP03-ZE-0133, "Boric Acid Corrosion Control Program," Revision 7, failed to provide adequate screening criteria for boric acid leaks. As a result, the inspectors identified multiple instances where the licensee inadequately screened boric acid leaks by failing to take into account all the characteristics of the leak commensurate to the affected component. The licensee entered the finding into the corrective action program as Condition Report 14-5393.

The inspectors determined that the failure to establish adequate screening criteria for boric acid leaks in Procedure 0PGP03-ZE-0133 was a performance deficiency. The finding is more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1, the finding was determined to be of very low safety significance (Green) because the assessment of degradation did not result in exceeding the RCS leak rate for a small LOCA and did not affect other systems used to mitigate a LOCA resulting in a total loss of their function. The inspectors determined the finding has a cross-cutting aspect in the area of human performance associated with conservative bias because the licensee failed to use decision-making practices that emphasize prudent choices over those that are simply allowable [H.14].
Inspection Report# : 2014002 *(pdf)*

Mitigating Systems

Significance: G Sep 25, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Loop Flow Test
The team identified a non-cited violation of Technical Specification 6.8.1.d for the failure to implement and maintain written procedures for fire protection program implementation. Specifically, the licensee failed to have procedures for and to flow test the portions of the underground piping that supplied water to the diesel generator buildings since the initial startup test. The licensee initiated actions to perform the flow testing within two months and entered the deficiency into their corrective action program as Condition Report 14-17098.

The failure to conduct flow testing of the entire underground fire protection piping loop was a performance

deficiency. This performance deficiency was more than minor because it was associated with the protection against external factors attribute (fire) and 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. Specifically, the failure to performance test the underground fire protection piping loops supplying the emergency diesel generator buildings for both units did not demonstrate the continued capability to deliver adequate flow and pressure to the fire suppression systems supplying those buildings.

The team evaluated the finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," because it affected fire protection defense-in-depth strategies involving fire water supply. Using Appendix F, the team determined that the finding screened to very low safety significance. Specifically, the finding did not prevent the reactor from achieving safe shutdown since only one safe shutdown train would be affected at a time. Since these underground fire protection piping loops had not been flow tested since initial installation and nothing caused the licensee to reevaluate the test, the team determined that this failure did not reflect current performance.
Inspection Report# : 2014008 *(pdf)*

Barrier Integrity

Significance: G Sep 28, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify a Condition Adverse to Quality for the Control Room Envelope
The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," involving the licensee's failure to promptly identify and correct a condition adverse to quality. Specifically, following the identification of general corrosion on the Units 1 and 2 control room envelope heating, ventilation, and air conditioning ducts, the licensee failed to identify that moisture condensing and collecting was a condition adverse to quality and failed to correct the condition. As a result, corrosion caused through-wall leaks in 2008 and 2014. The licensee entered this into the corrective action program as Condition Report 14-17723, and planned to evaluate and address the issue.

The failure to promptly identify and correct a condition adverse to quality is a performance deficiency. The performance deficiency was more than minor because it is associated with the barrier performance attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective. Using NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination Process (SDP) for Findings at Power," dated June 19, 2012, the finding was determined to be of very low safety significance (Green) because the finding only represented a degradation of the radiological barrier function provided for the control room. The finding has a cross-cutting aspect in the area of problem identification and resolution associated with evaluation, because the licensee failed to thoroughly evaluate the issue to ensure that the resolution addressed the cause of extent of condition commensurate with the safety significance [P2].
Inspection Report# : 2014004 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

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Miscellaneous

Significance: G Dec 18, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Perform Proper Material Package Searches to Ensure Identification Prior to Entry into Protected Area
The team identified a non-cited violation of 10 CFR 73.55(h)(3)(i) for the failure to properly search personnel items (lunch boxes, briefcases, packages) before granting access to protected areas. Specifically, security personnel did not follow Security Instruction 2101, "Access Control," by allowing owners of packages to manipulate their packages when officers needed to search those packages for contraband prior to gaining entry into the protected area. The licensee entered the issue into the corrective action program as Condition Report 14-22811, developed, and reviewed a pre-job brief specifically for search train requirements with every oncoming officer, and covered management expectations and procedure details at all shift turnovers.

The failure to follow Security Instruction 2101 "Access Control," requirements by allowing the owners (non-security officers) to manipulate those packages that needed to be hand inspected when x-ray inspection reveals complex images or suspicious or unidentifiable images was a performance deficiency. The performance deficiency is more than minor because it was associated with the Access Control attribute and adversely affected the Safeguards/Security cornerstone objective to provide assurance that the licensee's security system uses a defense in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats, and therefore a finding. The finding adversely affected the cornerstone objective because it could have resulted in undetected weapons or contraband being taken into the protected and vital areas.

Using the Physical Protection Significance Determination Process, the inspector determined that the cumulative total for the finding was two points. This was calculated by factoring the impact area (Vital Area) against Tier I element 71130.02-02.02(c) Search Activities, under the Access Control attribute. Because the calculated point total did not exceed the range for a Green determination (zero to six points), the inspector determined the finding to be of very low security significance. The inspectors determined that this finding has a cross-cutting aspect in the human performance

area associated with complacency in that security force personnel did not implement appropriate error reduction tools due to the repetitive nature of the search train activities and the expectation of successful outcomes H.12.

Inspection Report# : 2014010 *(pdf)*

Last modified : June 16, 2015

South Texas 2
2Q/2015 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Sep 25, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Loop Flow Test
The team identified a non-cited violation of Technical Specification 6.8.1.d for the failure to implement and maintain written procedures for fire protection program implementation. Specifically, the licensee failed to have procedures for and to flow test the portions of the underground piping that supplied water to the diesel generator buildings since the initial startup test. The licensee initiated actions to perform the flow testing within two months and entered the deficiency into their corrective action program as Condition Report 14-17098.

The failure to conduct flow testing of the entire underground fire protection piping loop was a performance deficiency. This performance deficiency was more than minor because it was associated with the protection against external factors attribute (fire) and 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. Specifically, the failure to performance test the underground fire protection piping loops supplying the emergency diesel generator buildings for both units did not demonstrate the continued capability to deliver adequate flow and pressure to the fire suppression systems supplying those buildings.

The team evaluated the finding using Inspection Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” because it affected fire protection defense-in-depth strategies involving fire water supply. Using Appendix F, the team determined that the finding screened to very low safety significance. Specifically, the finding did not prevent the reactor from achieving safe shutdown since only one safe shutdown train would be affected at a time. Since these underground fire protection piping loops had not been flow tested since initial installation and nothing caused the licensee to reevaluate the test, the team determined that this failure did not reflect current performance.
Inspection Report# : 2014008 *(pdf)*

Barrier Integrity

Significance: G Sep 28, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify a Condition Adverse to Quality for the Control Room Envelope

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," involving the licensee's failure to promptly identify and correct a condition adverse to quality. Specifically, following the identification of general corrosion on the Units 1 and 2 control room envelope heating, ventilation, and air conditioning ducts, the licensee failed to identify that moisture condensing and collecting was a condition adverse to quality and failed to correct the condition. As a result, corrosion caused through-wall leaks in 2008 and 2014. The licensee entered this into the corrective action program as Condition Report 14-17723, and planned to evaluate and address the issue.

The failure to promptly identify and correct a condition adverse to quality is a performance deficiency. The performance deficiency was more than minor because it is associated with the barrier performance attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective. Using NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination Process (SDP) for Findings at Power," dated June 19, 2012, the finding was determined to be of very low safety significance (Green) because the finding only represented a degradation of the radiological barrier function provided for the control room. The finding has a cross-cutting aspect in the area of problem identification and resolution associated with evaluation, because the licensee failed to thoroughly evaluate the issue to ensure that the resolution addressed the cause of extent of condition commensurate with the safety significance [P2].
Inspection Report# : 2014004 *(pdf)*

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

Significance: **N/A** Dec 31, 2014
Identified By: NRC

Item Type: NCV Non-Cited Violation
Failure to Update the UFSAR for the Ultrasonic Feedwater Flow Measurement System
The inspectors identified a non-cited violation of 10 CFR 50.71(e), "Maintenance of Records, Making Reports," for the failure to update the Updated Final Safety Analysis Report with information on the installation and use of the ultrasonic feedwater flow measurement system to control reactor power and calibrate nuclear instruments, which was installed in both units by the end of 1999. This violation was entered into the corrective action program as Condition Report 15-420.

The failure to update the Updated Final Safety Analysis Report, as required by 10 CFR 50.71(e), with a description of the ultrasonic feedwater flow measurement system was a performance deficiency. The inspectors determined that this performance deficiency was not more than minor. However, because it had the potential to impact the NRC's ability to perform its regulatory oversight function, the inspectors assessed more the significance of the violation using traditional enforcement. Using the NRC Enforcement Policy to evaluate the significance, the violation was determined to be a Severity Level IV violation in accordance with Section 6.1.d.3, since the lack of information in the Updated Final Safety Analysis Report was not used to make an unacceptable change to the facility or procedures. Cross-cutting aspects are not assigned to traditional enforcement violations.
Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 18, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Perform Proper Material Package Searches to Ensure Identification Prior to Entry into Protected Area
The team identified a non-cited violation of 10 CFR 73.55(h)(3)(i) for the failure to properly search personnel items (lunch boxes, briefcases, packages) before granting access to protected areas. Specifically, security personnel did not follow Security Instruction 2101, "Access Control," by allowing owners of packages to manipulate their packages when officers needed to search those packages for contraband prior to gaining entry into the protected area. The licensee entered the issue into the corrective action program as Condition Report 14-22811, developed, and reviewed a pre-job brief specifically for search train requirements with every oncoming officer, and covered management expectations and procedure details at all shift turnovers.

The failure to follow Security Instruction 2101 "Access Control," requirements by allowing the owners (non-security officers) to manipulate those packages that needed to be hand inspected when x-ray inspection reveals complex images or suspicious or unidentifiable images was a performance deficiency. The performance deficiency is more than minor because it was associated with the Access Control attribute and adversely affected the Safeguards/Security cornerstone objective to provide assurance that the licensee's security system uses a defense in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats, and therefore a finding. The finding adversely affected the cornerstone objective because it could have resulted in undetected weapons or contraband being taken into the protected and vital areas.

Using the Physical Protection Significance Determination Process, the inspector determined that the cumulative total for the finding was two points. This was calculated by factoring the impact area (Vital Area) against Tier I element 71130.02-02.02(c) Search Activities, under the Access Control attribute. Because the calculated point total did not exceed the range for a Green determination (zero to six points), the inspector determined the finding to be of very low security significance. The inspectors determined that this finding has a cross-cutting aspect in the human performance area associated with complacency in that security force personnel did not implement appropriate error reduction tools due to the repetitive nature of the search train activities and the expectation of successful outcomes H.12.

Inspection Report# : 2014010 *(pdf)*

Last modified : August 07, 2015

South Texas 2
3Q/2015 Plant Inspection Findings

Initiating Events

Significance: G Jul 04, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Follow Hurricane Plan Procedure to Secure Missile Hazards During Tropical Storm Bill
Inspectors identified a non-cited violation of Technical Specification 6.8.1.a for failure to follow Procedure 0PGP03-ZV-0002, "Hurricane Plan," Revision 7. Specifically, on June 15 through 16, 2015, the licensee failed to remove loose trash and materials inside the protected area to protect against potential missile hazards in accordance with Data Sheet 3 of Procedure 0PGP03-ZV-0002 in preparation for Tropical Storm Bill. The licensee has entered this issue into the corrective action program as Condition Report 15-17110.

The failure of the licensee to address and control potential missile hazards on site, on the Unit 1 mechanical auxiliary building roof, turbine deck, and around standby transformer 1 was a performance deficiency. Specifically, on June 16, 2015, the licensee failed to follow Data Sheet 3 of Procedure 0PGP03-ZV-0002, "Hurricane Plan," Revision 7, to adequately secure potential missile hazards in preparation for Tropical Storm Bill. The performance deficiency was determined to be more than minor because it was associated with the protection against external factor attribute and adversely affected the Initiating Event Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. Using NRC Inspection Manual 0609, Appendix A, Exhibit 1, "Initiating Events Screening Questions," the inspectors determined the finding was of very low safety significance (Green) because it did not cause a reactor trip and the 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 finding had a cross cutting aspect in the area of problem identification and resolution associated with resolution. Specifically, the licensee failed to take effective corrective action from previous NRC-identified instances in the past where the licensee had loose material and debris that could become a missile hazards during a severe weather event [P.3].

Inspection Report# : 2015002 *(pdf)*

Mitigating Systems

Significance: G Jul 04, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Properly Check Design and Test Chiller Purge Check Valves
The inspectors documented a self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to have adequate measures for the selection and review for suitability of application of parts that are essential to the safety related functions of structures, systems and components. Specifically, the licensee failed to properly inspect and test essential chiller condenser purge check valves during the station's commercial dedication process to ensure proper function in their safety-related application. The licensee has entered the issue into the corrective action program as Condition Report 15-4990 and has implemented corrective actions to

the technical evaluation that will adequately measure and test the purge check valve in the future.

The failure to properly inspect and test essential chiller condenser check valves during the station's commercial dedication process to ensure proper function in the safety-related application was a performance deficiency. This performance deficiency is more than minor because it adversely affected the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, on January 18, 2015, March 5, 2015, and March 21, 2015, the inadequately dedicated purge check valves resulted in a trip of the essential chiller, rendering the train inoperable and challenging plant operations. Using NRC Inspection Manual 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," the inspectors determined the finding was of very low safety significance (Green) because it did not affect the design or qualification of the system, did not result in a loss of system function, did not represent a loss of function of a single train for greater than its technical specifications allowed outage time, and did not cause the loss of function of one or more non-technical specification trains of equipment designated as high safety-significance. The inspectors determined that the finding did not have a cross-cutting aspect because the main contributor to the cause of the performance deficiency occurred in 1993.

Inspection Report# : 2015002 *(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

Significance: **N/A** Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Update the UFSAR for the Ultrasonic Feedwater Flow Measurement System
The inspectors identified a non-cited violation of 10 CFR 50.71(e), "Maintenance of Records, Making Reports," for the failure to update the Updated Final Safety Analysis Report with information on the installation and use of the ultrasonic feedwater flow measurement system to control reactor power and calibrate nuclear instruments, which was installed in both units by the end of 1999. This violation was entered into the corrective action program as Condition Report 15-420.

The failure to update the Updated Final Safety Analysis Report, as required by 10 CFR 50.71(e), with a description of the ultrasonic feedwater flow measurement system was a performance deficiency. The inspectors determined that this performance deficiency was not more than minor. However, because it had the potential to impact the NRC's ability to perform its regulatory oversight function, the inspectors assessed more the significance of the violation using traditional enforcement. Using the NRC Enforcement Policy to evaluate the significance, the violation was determined to be a Severity Level IV violation in accordance with Section 6.1.d.3, since the lack of information in the Updated Final Safety Analysis Report was not used to make an unacceptable change to the facility or procedures. Cross-cutting aspects are not assigned to traditional enforcement violations.
Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 18, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Perform Proper Material Package Searches to Ensure Identification Prior to Entry into Protected Area
The team identified a non-cited violation of 10 CFR 73.55(h)(3)(i) for the failure to properly search personnel items (lunch boxes, briefcases, packages) before granting access to protected areas. Specifically, security personnel did not follow Security Instruction 2101, "Access Control," by allowing owners of packages to manipulate their packages when officers needed to search those packages for contraband prior to gaining entry into the protected area. The licensee entered the issue into the corrective action program as Condition Report 14-22811, developed, and reviewed a pre-job brief specifically for search train requirements with every oncoming officer, and covered management expectations and procedure details at all shift turnovers.

The failure to follow Security Instruction 2101 "Access Control," requirements by allowing the owners (non-security officers) to manipulate those packages that needed to be hand inspected when x-ray inspection reveals complex images or suspicious or unidentifiable images was a performance deficiency. The performance deficiency is more than minor because it was associated with the Access Control attribute and adversely affected the Safeguards/Security cornerstone objective to provide assurance that the licensee's security system uses a defense in-depth approach and can protect against the design basis threat of radiological sabotage from external and internal threats, and therefore a finding. The finding adversely affected the cornerstone objective because it could have resulted in undetected weapons or contraband being taken into the protected and vital areas.

Using the Physical Protection Significance Determination Process, the inspector determined that the cumulative total for the finding was two points. This was calculated by factoring the impact area (Vital Area) against Tier I element 71130.02-02.02(c) Search Activities, under the Access Control attribute. Because the calculated point total did not exceed the range for a Green determination (zero to six points), the inspector determined the finding to be of very low security significance. The inspectors determined that this finding has a cross-cutting aspect in the human performance area associated with complacency in that security force personnel did not implement appropriate error reduction tools due to the repetitive nature of the search train activities and the expectation of successful outcomes H.12.

Inspection Report# : 2014010 *(pdf)*

Last modified : December 15, 2015

South Texas 2
4Q/2015 Plant Inspection Findings

Initiating Events

Significance: G Jul 04, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Follow Hurricane Plan Procedure to Secure Missile Hazards During Tropical Storm Bill
Inspectors identified a non-cited violation of Technical Specification 6.8.1.a for failure to follow Procedure 0PGP03-ZV-0002, "Hurricane Plan," Revision 7. Specifically, on June 15 through 16, 2015, the licensee failed to remove loose trash and materials inside the protected area to protect against potential missile hazards in accordance with Data Sheet 3 of Procedure 0PGP03-ZV-0002 in preparation for Tropical Storm Bill. The licensee has entered this issue into the corrective action program as Condition Report 15-17110.

The failure of the licensee to address and control potential missile hazards on site, on the Unit 1 mechanical auxiliary building roof, turbine deck, and around standby transformer 1 was a performance deficiency. Specifically, on June 16, 2015, the licensee failed to follow Data Sheet 3 of Procedure 0PGP03-ZV-0002, "Hurricane Plan," Revision 7, to adequately secure potential missile hazards in preparation for Tropical Storm Bill. The performance deficiency was determined to be more than minor because it was associated with the protection against external factor attribute and adversely affected the Initiating Event Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. Using NRC Inspection Manual 0609, Appendix A, Exhibit 1, "Initiating Events Screening Questions," the inspectors determined the finding was of very low safety significance (Green) because it did not cause a reactor trip and the 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 finding had a cross cutting aspect in the area of problem identification and resolution associated with resolution. Specifically, the licensee failed to take effective corrective action from previous NRC-identified instances in the past where the licensee had loose material and debris that could become a missile hazards during a severe weather event [P.3].

Inspection Report# : 2015002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: FIN Finding
Failure to Track and Incorporate Actual Plant Data into Simulator Operability Testing
The inspectors identified a finding, associated with simulator operability testing, for the failure of the licensee to track and incorporate actual plant data into their cyclic operability tests, as required by American National Standards Institute-3.5-2009, "Nuclear Power Plant Simulators for Use in Operator Training and Examination." With the exception of one transient, the licensee exclusively used engineering analysis from the RETRAN code as baseline data without reference to plant events that may have been related to the required transient tests. This issue was entered into the licensee's corrective action program as Condition Report 15-21463.

The failure to track and incorporate plant events into baseline data for simulator operability testing is a performance deficiency. It is more than minor and, therefore, a finding because it is associated with the human performance attribute of the Mitigating Systems Cornerstone and negatively affected the objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, if simulator performance is not being compared to the most relevant baseline data from the plant, the reliability of the simulator performance is reduced. Using Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification SDP" (block 14), the finding was determined to have very low safety significance (Green) because it is a "Simulator testing, maintenance, or modification deficiency." This finding has a cross-cutting aspect in the procedure adherence component of the human performance cross-cutting area because the licensee failed to ensure that individuals follow processes, procedures, and work instructions in that the American National Standards Institute-3.5-2009 guidance for selecting baseline data for simulator testing was not followed [H.8].
Inspection Report# : 2015004 *(pdf)*

Significance: G Jul 04, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Properly Check Design and Test Chiller Purge Check Valves
The inspectors documented a self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to have adequate measures for the selection and review for suitability of application of parts that are essential to the safety related functions of structures, systems and components. Specifically, the licensee failed to properly inspect and test essential chiller condenser purge check valves during the station's commercial dedication process to ensure proper function in their safety-related application. The licensee has entered the issue into the corrective action program as Condition Report 15-4990 and has implemented corrective actions to the technical evaluation that will adequately measure and test the purge check valve in the future.

The failure to properly inspect and test essential chiller condenser check valves during the station's commercial dedication process to ensure proper function in the safety-related application was a performance deficiency. This performance deficiency is more than minor because it adversely affected the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, on January 18, 2015, March 5, 2015, and March 21, 2015, the inadequately dedicated purge check valves resulted in a trip of the essential chiller, rendering the train inoperable and challenging plant operations. Using NRC Inspection Manual 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," the inspectors determined the finding was of very low safety significance (Green) because it did not affect the design or qualification of the system, did not result in a loss of system function, did not represent a loss of function of a single train for greater than its technical specifications allowed outage time, and did not cause the loss of function of one or more non-technical specification trains of equipment designated as high safety-significance. The inspectors determined that the finding did not have a cross-cutting aspect because the main contributor to the cause of the performance deficiency occurred in 1993.

Inspection Report# : 2015002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Maintain the Emergency Plan Up to Date With the Safety Evaluation Report
The inspectors identified a non-cited violation of 10 CFR 50.54(q)(2) for failure to maintain the emergency plan in accordance with the approved safety evaluation report. Specifically, the licensee failed to meet 10 CFR 50.47(b)(2) requirements for timely augmentation of response capabilities, in accordance with the approved safety evaluation report. Following an update to the safety evaluation report in 1993, the licensee failed to update the emergency response organization staff augmentation time requirements to commence at the time of an emergency declaration vice from the time of an emergency notification. To restore compliance, the licensee updated the emergency plan in accordance with the current safety evaluation report.

Failure to maintain the site emergency plan in accordance with the approved safety evaluation report, dated May 20, 1993, was a performance deficiency. Specifically, the licensee failed to update the ERO staff augmentation time requirements to commence at the time of an emergency declaration, as required by the NRC safety evaluation report. This performance deficiency is more than minor because it is associated with the procedure quality attribute of the Emergency Preparedness Cornerstone and adversely affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. This finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process (SDP)," dated September 22, 2015, and was determined to be of very low safety significance (Green) per Table 5.2-1, "Significance Examples 50.47(b)(2)," because the staffing processes do not meet the threshold of "routinely not capable of ensuring timely augmentation of the on shift emergency response staff to the extent that more than one required ERO functional area (in accordance with E-plan commitments) would not be filled." No cross-cutting aspect is assigned because the performance deficiency is not indicative of present performance.
Inspection Report# : 2015004 *(pdf)*

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 : March 01, 2016

South Texas 2
1Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Jul 04, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Follow Hurricane Plan Procedure to Secure Missile Hazards During Tropical Storm Bill
Inspectors identified a non-cited violation of Technical Specification 6.8.1.a for failure to follow Procedure 0PGP03-ZV-0002, "Hurricane Plan," Revision 7. Specifically, on June 15 through 16, 2015, the licensee failed to remove loose trash and materials inside the protected area to protect against potential missile hazards in accordance with Data Sheet 3 of Procedure 0PGP03-ZV-0002 in preparation for Tropical Storm Bill. The licensee has entered this issue into the corrective action program as Condition Report 15-17110.

The failure of the licensee to address and control potential missile hazards on site, on the Unit 1 mechanical auxiliary building roof, turbine deck, and around standby transformer 1 was a performance deficiency. Specifically, on June 16, 2015, the licensee failed to follow Data Sheet 3 of Procedure 0PGP03-ZV-0002, "Hurricane Plan," Revision 7, to adequately secure potential missile hazards in preparation for Tropical Storm Bill. The performance deficiency was determined to be more than minor because it was associated with the protection against external factor attribute and adversely affected the Initiating Event Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. Using NRC Inspection Manual 0609, Appendix A, Exhibit 1, "Initiating Events Screening Questions," the inspectors determined the finding was of very low safety significance (Green) because it did not cause a reactor trip and the 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 finding had a cross cutting aspect in the area of problem identification and resolution associated with resolution. Specifically, the licensee failed to take effective corrective action from previous NRC-identified instances in the past where the licensee had loose material and debris that could become a missile hazards during a severe weather event [P.3].

Inspection Report# : 2015002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: FIN Finding
Failure to Track and Incorporate Actual Plant Data into Simulator Operability Testing
The inspectors identified a finding, associated with simulator operability testing, for the failure of the licensee to track and incorporate actual plant data into their cyclic operability tests, as required by American National Standards Institute-3.5-2009, "Nuclear Power Plant Simulators for Use in Operator Training and Examination." With the exception of one transient, the licensee exclusively used engineering analysis from the RETRAN code as baseline data without reference to plant events that may have been related to the required transient tests. This issue was entered into the licensee's corrective action program as Condition Report 15-21463.

The failure to track and incorporate plant events into baseline data for simulator operability testing is a performance deficiency. It is more than minor and, therefore, a finding because it is associated with the human performance attribute of the Mitigating Systems Cornerstone and negatively affected the objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, if simulator performance is not being compared to the most relevant baseline data from the plant, the reliability of the simulator performance is reduced. Using Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification SDP" (block 14), the finding was determined to have very low safety significance (Green) because it is a "Simulator testing, maintenance, or modification deficiency." This finding has a cross-cutting aspect in the procedure adherence component of the human performance cross-cutting area because the licensee failed to ensure that individuals follow processes, procedures, and work instructions in that the American National Standards Institute-3.5-2009 guidance for selecting baseline data for simulator testing was not followed [H.8].
Inspection Report# : 2015004 *(pdf)*

Significance: G Jul 04, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Properly Check Design and Test Chiller Purge Check Valves
The inspectors documented a self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to have adequate measures for the selection and review for suitability of application of parts that are essential to the safety related functions of structures, systems and components. Specifically, the licensee failed to properly inspect and test essential chiller condenser purge check valves during the station's commercial dedication process to ensure proper function in their safety-related application. The licensee has entered the issue into the corrective action program as Condition Report 15-4990 and has implemented corrective actions to the technical evaluation that will adequately measure and test the purge check valve in the future.

The failure to properly inspect and test essential chiller condenser check valves during the station's commercial dedication process to ensure proper function in the safety-related application was a performance deficiency. This performance deficiency is more than minor because it adversely affected the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, on January 18, 2015, March 5, 2015, and March 21, 2015, the inadequately dedicated purge check valves resulted in a trip of the essential chiller, rendering the train inoperable and challenging plant operations. Using NRC Inspection Manual 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," the inspectors determined the finding was of very low safety significance (Green) because it did not affect the design or qualification of the system, did not result in a loss of system function, did not represent a loss of function of a single train for greater than its technical specifications allowed outage time, and did not cause the loss of function of one or more non-technical specification trains of equipment designated as high safety-significance. The inspectors determined that the finding did not have a cross-cutting aspect because the main contributor to the cause of the performance deficiency occurred in 1993.

Inspection Report# : 2015002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Maintain the Emergency Plan Up to Date With the Safety Evaluation Report
The inspectors identified a non-cited violation of 10 CFR 50.54(q)(2) for failure to maintain the emergency plan in accordance with the approved safety evaluation report. Specifically, the licensee failed to meet 10 CFR 50.47(b)(2) requirements for timely augmentation of response capabilities, in accordance with the approved safety evaluation report. Following an update to the safety evaluation report in 1993, the licensee failed to update the emergency response organization staff augmentation time requirements to commence at the time of an emergency declaration vice from the time of an emergency notification. To restore compliance, the licensee updated the emergency plan in accordance with the current safety evaluation report.

Failure to maintain the site emergency plan in accordance with the approved safety evaluation report, dated May 20, 1993, was a performance deficiency. Specifically, the licensee failed to update the ERO staff augmentation time requirements to commence at the time of an emergency declaration, as required by the NRC safety evaluation report. This performance deficiency is more than minor because it is associated with the procedure quality attribute of the Emergency Preparedness Cornerstone and adversely affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. This finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process (SDP)," dated September 22, 2015, and was determined to be of very low safety significance (Green) per Table 5.2-1, "Significance Examples 50.47(b)(2)," because the staffing processes do not meet the threshold of "routinely not capable of ensuring timely augmentation of the on shift emergency response staff to the extent that more than one required ERO functional area (in accordance with E-plan commitments) would not be filled." No cross-cutting aspect is assigned because the performance deficiency is not indicative of present performance.
Inspection Report# : 2015004 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Security

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Miscellaneous

Last modified : July 11, 2016

South Texas 2
2Q/2016 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Scaffold Procedure to Ensure Safety-Related Equipment Not Impacted
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to provide an adequate scaffold procedure to ensure that safety-related equipment would not be impacted. Specifically, Procedure 0PGP03-ZM-0028, "Erection and Use of Temporary Scaffolding," Revision 20, did not give scaffold clearance parameters when constructing scaffold around safety-related mechanical and structural components, nor did it direct an engineering evaluation if scaffold is in contact with safety-related components or when clearances cannot be met. The licensee entered this issue into the corrective action program as Condition Report 16-5503.

The failure to have adequate procedural guidance for erecting temporary scaffold in the vicinity of safety-related components was a performance deficiency. Specifically, Procedure 0PGP03-ZM-0028, "Erection and Use of Temporary Scaffolding," Revision 20, only described scaffold clearance around safety-related electrical equipment, but not safety-related mechanical and structural components. The performance deficiency is more than minor, and therefore a finding, because if left uncorrected could become a more safety significant safety issue following a seismic event. Specifically, the continued practice of building scaffolding in contact with safety-related equipment and without an engineering evaluation could lead to damage, inoperability, or unavailability during system perturbations or following a seismic event. The inspectors evaluated this finding in accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Screening Questions." The inspectors determined the finding was of very low safety significance (Green) because the finding did not: 1) affect the design or qualification of a mitigating structure, system, and component; 2) represent a loss of system and/or function; 3) represent an actual loos of function of at least a single train for greater than its technical specification allowed outage time or two separate safety systems for greater than its technical specification allowed outage time; or 4) represent an actual loss of function of one or more technical specification trains of equipment designated as high safety significance in accordance with the licensee's maintenance rule program for greater than 24 hours. The inspectors determined that the finding has a cross-cutting aspect of self-assessment in the problem identification and resolution area, because the licensee had not recently conducted a periodic and critical review of the temporary scaffold program and procedures [P.6].
Inspection Report# : 2016002 *(pdf)*

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: FIN Finding
Failure to Track and Incorporate Actual Plant Data into Simulator Operability Testing

The inspectors identified a finding, associated with simulator operability testing, for the failure of the licensee to track and incorporate actual plant data into their cyclic operability tests, as required by American National Standards Institute-3.5-2009, "Nuclear Power Plant Simulators for Use in Operator Training and Examination." With the exception of one transient, the licensee exclusively used engineering analysis from the RETRAN code as baseline data without reference to plant events that may have been related to the required transient tests. This issue was entered into the licensee's corrective action program as Condition Report 15-21463.

The failure to track and incorporate plant events into baseline data for simulator operability testing is a performance deficiency. It is more than minor and, therefore, a finding because it is associated with the human performance attribute of the Mitigating Systems Cornerstone and negatively affected the objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, if simulator performance is not being compared to the most relevant baseline data from the plant, the reliability of the simulator performance is reduced. Using Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification SDP" (block 14), the finding was determined to have very low safety significance (Green) because it is a "Simulator testing, maintenance, or modification deficiency." This finding has a cross-cutting aspect in the procedure adherence component of the human performance cross-cutting area because the licensee failed to ensure that individuals follow processes, procedures, and work instructions in that the American National Standards Institute-3.5-2009 guidance for selecting baseline data for simulator testing was not followed [H.8].
Inspection Report# : 2015004 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Maintain the Emergency Plan Up to Date With the Safety Evaluation Report
The inspectors identified a non-cited violation of 10 CFR 50.54(q)(2) for failure to maintain the emergency plan in accordance with the approved safety evaluation report. Specifically, the licensee failed to meet 10 CFR 50.47(b)(2) requirements for timely augmentation of response capabilities, in accordance with the approved safety evaluation report. Following an update to the safety evaluation report in 1993, the licensee failed to update the emergency response organization staff augmentation time requirements to commence at the time of an emergency declaration vice from the time of an emergency notification. To restore compliance, the licensee updated the emergency plan in accordance with the current safety evaluation report.

Failure to maintain the site emergency plan in accordance with the approved safety evaluation report, dated May 20, 1993, was a performance deficiency. Specifically, the licensee failed to update the ERO staff augmentation time requirements to commence at the time of an emergency declaration, as required by the NRC safety evaluation report. This performance deficiency is more than minor because it is associated with the procedure quality attribute of the Emergency Preparedness Cornerstone and adversely affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. This finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process (SDP)," dated September 22, 2015, and was determined to be of

very low safety significance (Green) per Table 5.2-1, “Significance Examples 50.47(b)(2),” because the staffing processes do not meet the threshold of “routinely not capable of ensuring timely augmentation of the on shift emergency response staff to the extent that more than one required ERO functional area (in accordance with E-plan commitments) would not be filled.” No cross-cutting aspect is assigned because the performance deficiency is not indicative of present performance.
Inspection Report# : 2015004 *(pdf)*

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 : August 29, 2016

South Texas 2
3Q/2016 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Scaffold Procedure to Ensure Safety-Related Equipment Not Impacted
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to provide an adequate scaffold procedure to ensure that safety-related equipment would not be impacted. Specifically, Procedure 0PGP03-ZM-0028, "Erection and Use of Temporary Scaffolding," Revision 20, did not give scaffold clearance parameters when constructing scaffold around safety-related mechanical and structural components, nor did it direct an engineering evaluation if scaffold is in contact with safety-related components or when clearances cannot be met. The licensee entered this issue into the corrective action program as Condition Report 16-5503.

The failure to have adequate procedural guidance for erecting temporary scaffold in the vicinity of safety-related components was a performance deficiency. Specifically, Procedure 0PGP03-ZM-0028, "Erection and Use of Temporary Scaffolding," Revision 20, only described scaffold clearance around safety-related electrical equipment, but not safety-related mechanical and structural components. The performance deficiency is more than minor, and therefore a finding, because if left uncorrected could become a more safety significant safety issue following a seismic event. Specifically, the continued practice of building scaffolding in contact with safety-related equipment and without an engineering evaluation could lead to damage, inoperability, or unavailability during system perturbations or following a seismic event. The inspectors evaluated this finding in accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Screening Questions." The inspectors determined the finding was of very low safety significance (Green) because the finding did not: 1) affect the design or qualification of a mitigating structure, system, and component; 2) represent a loss of system and/or function; 3) represent an actual loos of function of at least a single train for greater than its technical specification allowed outage time or two separate safety systems for greater than its technical specification allowed outage time; or 4) represent an actual loss of function of one or more technical specification trains of equipment designated as high safety significance in accordance with the licensee's maintenance rule program for greater than 24 hours. The inspectors determined that the finding has a cross-cutting aspect of self-assessment in the problem identification and resolution area, because the licensee had not recently conducted a periodic and critical review of the temporary scaffold program and procedures [P.6].
Inspection Report# : 2016002 *(pdf)*

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: FIN Finding
Failure to Track and Incorporate Actual Plant Data into Simulator Operability Testing

The inspectors identified a finding, associated with simulator operability testing, for the failure of the licensee to track and incorporate actual plant data into their cyclic operability tests, as required by American National Standards Institute-3.5-2009, "Nuclear Power Plant Simulators for Use in Operator Training and Examination." With the exception of one transient, the licensee exclusively used engineering analysis from the RETRAN code as baseline data without reference to plant events that may have been related to the required transient tests. This issue was entered into the licensee's corrective action program as Condition Report 15-21463.

The failure to track and incorporate plant events into baseline data for simulator operability testing is a performance deficiency. It is more than minor and, therefore, a finding because it is associated with the human performance attribute of the Mitigating Systems Cornerstone and negatively affected the objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, if simulator performance is not being compared to the most relevant baseline data from the plant, the reliability of the simulator performance is reduced. Using Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification SDP" (block 14), the finding was determined to have very low safety significance (Green) because it is a "Simulator testing, maintenance, or modification deficiency." This finding has a cross-cutting aspect in the procedure adherence component of the human performance cross-cutting area because the licensee failed to ensure that individuals follow processes, procedures, and work instructions in that the American National Standards Institute-3.5-2009 guidance for selecting baseline data for simulator testing was not followed [H.8].
Inspection Report# : 2015004 *(pdf)*

Barrier Integrity

Significance: G Aug 26, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Update Procedure Reference Leads to Non-functional Unit 1 Technical Support Center Diesel Generator
The team is documenting a self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to follow Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 2. Specifically, on January 16, 1996, the licensee failed to identify and correct changes to drawing and breaker overhaul procedures, which resulted from Design Change Package 93-3409-4, "Circuit Breaker Replacement-Load Center 1W," in accordance with Step 4.2.2.5 of the procedure. This resulted in electrical maintenance personnel using an incorrect drawing and procedure during a technical support center diesel generator supply breaker overhaul, on July 16, 2014, which left in place internal jumper cables that prevented the supply breaker from automatically closing.

The inspectors determined that the failure to follow Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 2, was a performance deficiency. In accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Screening," the performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the structure, system, and component, and barrier performance - containment isolation, attribute of the Barrier Integrity Cornerstone, and affected the associated cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the finding adversely affected the Technical Support Center diesel generator's capability to supply ac power to the containment hatch hoists in order to close that hatch in the event of a loss of offsite power during outage conditions. Using Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," the inspectors determined that the finding could be evaluated using the significance

determination process. In accordance with Table 3, “SDP Appendix Router,” the inspectors determined that the subject finding would be processed through Appendix G, “Shutdown Operations Significance Determination Process.” dated May 9, 2014. In accordance with Appendix G, Exhibit 4, “Barrier Integrity Screening Questions,” Question B.6, directs the inspectors to Appendix H if the finding degrades the ability to close or isolate the containment. In accordance with Inspection Manual Chapter 0609, Appendix H, “Containment Integrity Significance Determination Process,” Section 4.1, “Types of Findings,” the finding was a Type B finding because it had potentially important implications for the integrity of the containment, without affecting the likelihood of core damage. Appendix H, Section 6.2, “Approach for Assessing Type B Findings at Shutdown,” Step 2.2.A directs the user to Table 6.3 with a containment status of intact. Table 6.3, “Phase 1 Screening – Type B Findings at Shutdown,” requires a Phase 2 evaluation because South Texas Project has a large, dry containment and the finding affected containment isolation. Appendix H, Table 6.4, “Phase 2 Risk Significance – Type B Findings at Shutdown,” provided an estimated risk significance of White because South Texas Project has a large, dry containment; the leakage from containment was greater than 100 percent volume/day; South Texas Project had in-depth shutdown mitigation capability; and for part of the exposure period, the plant was in Plant Operational State 2E.

In accordance with Appendix H, Section 2.0, “Limitations and Precautions,” a more detailed assessment was performed in a Significant Determination Process Phase 3 evaluation.

The analyst performed a detailed risk evaluation of the subject performance deficiency. During the exposure period, from July 16, 2014, through October 29, 2015, the failure of the Technical Support Center diesel generator affected risk of the unit, while at power, because of the failure to provide power to the positive displacement pump for reactor coolant pump seal cooling following a postulated loss of all alternating current event. Additionally, the Technical Support Center diesel would not have fulfilled its function to provide backup power to close the containment hatch during the outage period from October 18, 2015, to October 29, 2015. These two impacts on plant risk were evaluated. Because the combined risk of the at-power and shutdown risk evaluations were lower than the threshold, the analyst determined that this non-cited violation was of very low safety significance (Green). This finding has no cross-cutting aspect assigned because the root cause of this issue occurred in 1996 and is not reflective of current licensee performance.
Inspection Report# : 2016009 *(pdf)*

Emergency Preparedness

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Maintain the Emergency Plan Up to Date With the Safety Evaluation Report
The inspectors identified a non-cited violation of 10 CFR 50.54(q)(2) for failure to maintain the emergency plan in accordance with the approved safety evaluation report. Specifically, the licensee failed to meet 10 CFR 50.47(b)(2) requirements for timely augmentation of response capabilities, in accordance with the approved safety evaluation report. Following an update to the safety evaluation report in 1993, the licensee failed to update the emergency response organization staff augmentation time requirements to commence at the time of an emergency declaration vice from the time of an emergency notification. To restore compliance, the licensee updated the emergency plan in accordance with the current safety evaluation report.

Failure to maintain the site emergency plan in accordance with the approved safety evaluation report, dated May 20, 1993, was a performance deficiency. Specifically, the licensee failed to update the ERO staff augmentation time requirements to commence at the time of an emergency declaration, as required by the NRC safety evaluation report.

This performance deficiency is more than minor because it is associated with the procedure quality attribute of the Emergency Preparedness Cornerstone and adversely affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. This finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process (SDP)," dated September 22, 2015, and was determined to be of very low safety significance (Green) per Table 5.2-1, "Significance Examples 50.47(b)(2)," because the staffing processes do not meet the threshold of "routinely not capable of ensuring timely augmentation of the on shift emergency response staff to the extent that more than one required ERO functional area (in accordance with E-plan commitments) would not be filled." No cross-cutting aspect is assigned because the performance deficiency is not indicative of present performance.
Inspection Report# : 2015004 *(pdf)*

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 : December 08, 2016

South Texas 2
4Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Correct Procedure Deficiencies Allowing Cooling Restoration to RCP Seals
The team identified a Green, non-cited violation of Technical Specification 6.8.1.a., "Procedures," which requires that written procedures shall be established, implemented, and maintained for procedures in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Procedures addressing combating emergencies involving loss of electric power are denoted in Appendix A, Section 6, Item c. Specifically, since July 2010, the licensee failed to maintain the loss of all alternating current power emergency procedure to ensure the procedure contained adequate direction to operators to mitigate a loss of reactor coolant pump seal cooling unique to the plant's design. In response to this issue, the licensee initiated actions to consult with the plant's design owners' group to determine the best method of addressing this procedure vulnerability. Emergency operating procedure documentation and/or operator training will be revised based on owner's group input. This issue was entered into the licensee's corrective action program as Condition Report CR 16-2126.

The team determined that the failure to maintain procedures in accordance with accepted industry standards was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the Initiating Events cornerstone attribute of procedure quality, and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, operating procedures did not contain appropriate attributes to ensure timely action to prevent an increased likelihood of a reactor coolant pump seal loss of coolant accident following a station blackout. In addition, if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, if the licensee used the procedure to mitigate a loss of all alternating current power event, the licensee may increase the risk of increased reactor coolant pump seal leakage, as well as potentially placing the safety-related component cooling water system in an unanalyzed condition. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 1, "Initiating Events Screening Questions," the team determined a detailed risk evaluation was necessary because, after a reasonable assessment of degradation, the finding could result in exceeding the reactor coolant system leak rate for a small loss of coolant accident. Therefore, the senior reactor analyst performed a bounding detailed risk evaluation. The analyst determined that the change to the core damage frequency would be 1E-7 per year (Green). This finding had a cross-cutting aspect in the area of problem identification and resolution associated with evaluation because organizations failed to thoroughly evaluate issues to ensure that resolutions address causes and extent of condition commensurate with their safety significance. Specifically in 2014, the licensee received a non-cited violation associated with not having adequate procedures to address equipment malfunctions that caused a loss of reactor coolant pump seal cooling (Inspection Reports 05000498/2013007); however, the extent of condition review did not document any reviews of other procedures associated with reactor coolant pump seal cooling loss events to see if they allowed for seal cooling to be restored when seal temperatures were above 230 degrees F [P.2].
Inspection Report# : 2016007 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Scaffold Procedure to Ensure Safety-Related Equipment Not Impacted
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to provide an adequate scaffold procedure to ensure that safety-related equipment would not be impacted. Specifically, Procedure 0PGP03-ZM-0028, "Erection and Use of Temporary Scaffolding," Revision 20, did not give scaffold clearance parameters when constructing scaffold around safety-related mechanical and structural components, nor did it direct an engineering evaluation if scaffold is in contact with safety-related components or when clearances cannot be met. The licensee entered this issue into the corrective action program as Condition Report 16-5503.

The failure to have adequate procedural guidance for erecting temporary scaffold in the vicinity of safety-related components was a performance deficiency. Specifically, Procedure 0PGP03-ZM-0028, "Erection and Use of Temporary Scaffolding," Revision 20, only described scaffold clearance around safety-related electrical equipment, but not safety-related mechanical and structural components. The performance deficiency is more than minor, and therefore a finding, because if left uncorrected could become a more safety significant safety issue following a seismic event. Specifically, the continued practice of building scaffolding in contact with safety-related equipment and without an engineering evaluation could lead to damage, inoperability, or unavailability during system perturbations or following a seismic event. The inspectors evaluated this finding in accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Screening Questions." The inspectors determined the finding was of very low safety significance (Green) because the finding did not: 1) affect the design or qualification of a mitigating structure, system, and component; 2) represent a loss of system and/or function; 3) represent an actual loos of function of at least a single train for greater than its technical specification allowed outage time or two separate safety systems for greater than its technical specification allowed outage time; or 4) represent an actual loss of function of one or more technical specification trains of equipment designated as high safety significance in accordance with the licensee's maintenance rule program for greater than 24 hours. The inspectors determined that the finding has a cross-cutting aspect of self-assessment in the problem identification and resolution area, because the licensee had not recently conducted a periodic and critical review of the temporary scaffold program and procedures [P.6].
Inspection Report# : 2016002 *(pdf)*

Significance: G Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Perform Adequate Periodic Testing of Molded Case Circuit Breakers
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," which states, in part, "a test program shall assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents." Specifically, since March 22, 1988, the licensee failed to assure that all testing required to demonstrate that the safety-related molded case circuit breakers would perform satisfactorily in service was performed in accordance with the acceptance limits contained in Institute of Electrical and Electronics Engineers (IEEE) 308-1974. In response to this issue, the licensee determined that the molded case circuit breakers will remain operable while implementing corrective actions to ensure the appropriate testing requirements of the molded case circuit breaker were included in the test programs. This violation was entered into the licensee's corrective action program as Condition Report CR 16-

2166.

The team determined that the failure to detect deterioration and demonstrate operability of molded case circuit breakers through appropriate testing was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the equipment 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, inadequate periodic testing to detect deterioration and to demonstrate continued operability was a significant programmatic deficiency that would adversely affect the reliability of Class 1E molded case circuit breakers to perform satisfactorily in service. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the team determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design or qualification of a structure, system, or component, and the structure, system, or component maintained its operability or functionality. This finding had a cross-cutting aspect in the area of human performance associated with consistent practices because the licensee did not use a consistent, systematic approach to make decisions. Specifically, the licensee did not use a consistent approach to determine which molded case circuit breakers would or would not be tested [H.13].
Inspection Report# : 2016007 *(pdf)*

Significance: G Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Verify the Adequacy Calculations Associated with Direct Current Circuit Breakers
The team identified two examples of a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," which states, in part, "the design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program." Specifically, since March 22, 1988, the licensee failed to verify the adequacy of the molded case circuit breakers to perform their design basis function using appropriate time-current curves and tolerances or Class 1E 125 Vdc molded case circuit breakers to assure adequate trip response times, instantaneous trip accuracies, and rates of change of the sensed variable (the short circuit current). In response to this issue, the licensee determined that the 125 Vdc system would remain operable while implementing corrective actions to revise their design calculations to incorporate the appropriate time-current curves and current tolerances in design calculations. This violation was entered into licensee's corrective action program as Condition Reports CR 16-2196 and CR 16-2117.

The team determined that the failure to verify the adequacy of the design of Class 1E 125 Vdc molded case circuit breakers was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the design control 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 failure to verify the adequacy of the molded case circuit breakers to perform their design basis function using appropriate time-current curves and tolerances adversely affected the capability of the 125 Vdc systems. Additionally, independent inspector calculations confirmed that the calculation errors resulted in a reasonable doubt on the operability of the 125 Vdc molded case circuit breakers. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the team determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design or qualification of a structure, system, or component, and the structure, system, or component maintained its operability or functionality. The team determined that this finding did not have a cross- cutting aspect because the most significant contributor did not reflect present licensee performance.

Inspection Report# : 2016007 *(pdf)*

Significance: N/A Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Include Applicable Safety System Criteria in the Final Safety Analysis Report
The team identified a Severity Level IV, non-cited violation of 10 CFR 50.34(b)(2), "Final Safety Analysis Report" which requires, in part, that the final safety analysis report shall include a description and analysis of the structures, systems, and components of the facility, with emphasis upon performance requirements, the bases, with technical justification therefor, upon which such requirements have been established, and the evaluations required to show that safety functions will be accomplished. The description shall be sufficient to permit understanding of the system designs and their relationship to safety evaluations. Specifically, since March 22, 1988, the licensee failed to include, in the final safety analysis report, the safety system criteria specified by IEEE 603-1980 and IEEE 7.4-3-2 for the Eagle 21 control system, which described the facility, presented the design bases, and the limits on its operation. This violation does not represent an immediate safety concern. In response to this issue, the licensee created corrective actions to determine the appropriate information to include in the next update to the updated final safety analysis report. This violation was entered into the licensee's corrective action program as Condition Report CR 16-1281.

The team determined that the failure to revise the final safety analysis report with the supplemental information that presented the design bases of the qualified display processing system was a violation of 10 CFR 50.34(b)(2). The violation was more than minor because the design basis information affected certain safety system functions (i.e., the auxiliary feedwater system control valves), which had a material impact on safety. Because the issue affected the NRC's ability to perform its regulatory function, the inspectors evaluated this violation using the traditional enforcement process. The inspectors used the NRC Enforcement Policy, Subsection 6.1, "Reactor Operations," dated February 4, 2015, to evaluate the significance of this violation. This violation is similar to example 6.1.d.3 in the Enforcement Policy. Therefore, this was a Severity Level IV violation because the violation represented a failure to update the final safety analysis report as required by 10 CFR 50.34(b)(2), but the lack of up-to-date information has not resulted in any unacceptable change to the facility or procedures. The team determined there was no cross-cutting aspect because cross-cutting aspects are not assigned to traditional enforcement violations.
Inspection Report# : 2016007 *(pdf)*

Significance: G Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Perform Adequate On-going Class 1E Qualification for the Qualified Display Processing System
The team identified a Green, non-cited violation of 10 CFR 50.55a(h)(2) "Protection Systems," which requires, in part, for nuclear power plants with construction permits issued after January 1, 1971, but before May 13, 1999, protection systems must meet the requirements in IEEE Std. 279-1971, "Criteria for Protection Systems for Nuclear Power Generating Stations." Specifically, since approximately 1993, the licensee failed to demonstrate qualification of the Eagle 21 system, on a continuing basis, by appropriate methods for equipment whose qualified life is less than the design life of the system. This violation was entered into the licensee's corrective action program as Condition Report CR 16-2214.

The team determined that the failure to perform on-going qualification testing of installed Eagle 21 components whose qualified life was less than the design life was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the equipment 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, inadequate on-going equipment qualification adversely affects the availability, reliability, and capability of Class 1E components to meet their safety functional requirements throughout their service lives. In

accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the team determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design or qualification of a structure, system, or component, and the structure, system, or component maintained its operability or functionality. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect present licensee performance.
Inspection Report# : 2016007 *(pdf)*

Significance: G Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Control Software Tools Commensurate with the Importance to Safety
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment," which states, "Measures shall be established to assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits." Specifically, since March 22, 1988, the licensee failed to establish measures to assure that the Class 1E Eagle 21 software tools and testing devices were properly controlled commensurate with their importance to the test and evaluation of the Class 1E integrated computer system, which ensures compliance with the functional, performance, and interface requirements of the system. In response to this issue, the licensee placed control of the tools and testing equipment under the nuclear quality assurance program. This violation was entered into the corrective action program as Condition Report CR 16-1985.

The team determined that the failure to control software tools and testing devices used in activities affecting quality of the Class 1E Eagle 21 system was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it would have the potential to lead to a more significant safety concern. Specifically, the failure to control the software tools and testing devices would lead to potential errors being introduced to these tools and the safety-related Eagle 21 system. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the team determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design or qualification of a structure, system, or component, and the structure, system, or component maintained its operability or functionality. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect present licensee performance.
Inspection Report# : 2016007 *(pdf)*

Significance: G Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Correct Conditions Adverse to Quality Associated with the Eagle 21 System
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," which states, in part, "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected." Specifically, since September 24, 2014, the licensee failed to establish measures to assure that deficiencies, deviations, defective material and equipment, and nonconformances that were responsible for malfunctions in the Class 1E Eagle 21 system were corrected. In response to this issue, the licensee performed an operability determination which determined the system was operable but in a degraded condition. This violation was entered into the licensee's corrective action program as Condition Report CR 16-2220.

The team determined that the failure to correct conditions adverse to quality in the Class 1E Eagle 21 system that were

nonconformances with requirements was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the equipment 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 failure to correct conditions adverse to quality in the Class 1E Eagle 21 system adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of the protective action implemented by the qualified display processing system. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a cross-cutting aspect in the area of human performance associated with conservative bias because the licensee individuals failed to use decision making practices that emphasize prudent choices over those that are simply allowable [H.14].
Inspection Report# : 2016007 *(pdf)*

Significance:  Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Implement Administrative Controls for a Nonconservative Technical Specification of Standby Diesel Generator Frequency Variation
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," which states, in part, "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected." Specifically, since 1997, the licensee failed to correct a condition adverse to quality by imposing administrative controls in response to a nonconservative Technical Specification. In response to this issue, the licensee performed an operability determination regarding past performance on the auxiliary feedwater motor-driven pumps and concluded that they have always retained their safety function. This violation was entered into the licensee's corrective action program as Condition Report CR 16-2176.

The team determined that the failure to impose administrative limits in surveillance procedures to promptly correct a condition adverse to quality was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the equipment 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. Additionally, if left uncorrected, the performance deficiency would have the potential to become a more significant safety concern. Specifically, operation of the motor driven auxiliary feedwater pumps with a diesel generator frequency acceptance criteria of up to ±2 percent would allow operation in a regime where the pumps would not perform their safety function when called upon. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality. This finding had a cross-cutting aspect in the area of human performance associated with change management because the licensee failed to use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. Specifically, the licensee did not properly evaluate the need to take appropriate interim corrective actions before the appropriate guidance was endorsed [H.3].
Inspection Report# : 2016007 *(pdf)*

Significance: G Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Ensure Sufficient Capacity and Capability of Mitigating Systems during a Station Blackout Event
The team identified a Green, non-cited violation of 10 CFR 50.63(a)(2) which states, in part, "The reactor core and associated coolant, control, and protection systems, including station batteries and any other necessary support systems, must provide sufficient capacity and capability to ensure that the core is cooled and appropriate containment integrity is maintained in the event of a station blackout for the specified duration." Specifically, since September 12, 2013, the battery sizing and load profile calculations of the channel I ("A" train) direct current battery bus failed to include proper design data for expected loads and possible worst case load currents. In response to these issues, the licensee determined the battery bus was operable and the licensee initiated actions to analyze the effects of the change in calculation methodology, as well as to account for the additional loads. This finding was entered into the licensee's corrective action program as Condition Reports CR 16-1794, CR 16-2197, and CR 16-2236.

The team determined that the failure to ensure the capacity and capability of protection systems to provide support for core cooling and containment integrity maintenance in the event of a station blackout was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, if the channel I emergency safety features direct current bus were required to support loads for the four hour coping period, the licensee may subject components used to ensure core cooling and containment integrity to conditions that were not assumed in their station blackout analysis. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding had a cross-cutting aspect in the area of human performance associated with procedure adherence because the licensee failed to follow process, procedures, and work instructions. Specifically, the licensee did not follow the calculation change process procedures to complete an impact review of pertinent licensing information associated with station blackout when the battery load assumptions were revised in the station blackout coping calculation [H.8].

Inspection Report# : 2016007 *(pdf)*

Significance: G Mar 09, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Ensure Adequate Design Control Measures in Place to Mitigate a Loss of Normal Feedwater Flow Event
The team identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," which states, in part, that "Measures shall be established to assure that applicable regulatory requirements and the design basis…for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures and instructions." Specifically, since August 1, 2001, the licensee failed to translate into procedures that a loss of normal feedwater flow event would be mitigated consistent with the licensee's design basis assumptions. In response to this issue, the licensee initiated actions to establish interim emergency operating procedure directions for the licensed operators to ensure that credited safety-related equipment is used with priority in the event if this were to occur at the plant. The emergency operating procedure is being revised to ensure

permanent corrective action is taken. This finding was entered into the licensee's corrective action program as Condition Report CR 16-1694.

The team determined that the failure to establish measures to assure that the design bases was correctly translated into procedures and instructions was a performance deficiency. The performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the Mitigating Systems cornerstone attribute of procedure quality, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, if the licensee used the procedure to mitigate a loss of normal feedwater flow event, the licensee may place the plant in an unanalyzed condition. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor did not reflect present licensee performance.

Inspection Report# : 2016007 *(pdf)*

Barrier Integrity

Significance:  Aug 26, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Update Procedure Reference Leads to Non-functional Unit 1 Technical Support Center Diesel Generator
The team is documenting a self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to follow Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 2. Specifically, on January 16, 1996, the licensee failed to identify and correct changes to drawing and breaker overhaul procedures, which resulted from Design Change Package 93-3409-4, "Circuit Breaker Replacement-Load Center 1W," in accordance with Step 4.2.2.5 of the procedure. This resulted in electrical maintenance personnel using an incorrect drawing and procedure during a technical support center diesel generator supply breaker overhaul, on July 16, 2014, which left in place internal jumper cables that prevented the supply breaker from automatically closing.

The inspectors determined that the failure to follow Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 2, was a performance deficiency. In accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Screening," the performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the structure, system, and component, and barrier performance - containment isolation, attribute of the Barrier Integrity Cornerstone, and affected the associated cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the finding adversely affected the Technical Support Center diesel generator's capability to supply ac power to the containment hatch hoists in order to close that hatch in the event of a loss of offsite power during outage conditions. Using Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," the inspectors determined that the finding could be evaluated using the significance determination process. In accordance with Table 3, "SDP Appendix Router," the inspectors determined that the subject finding would be processed through Appendix G, "Shutdown Operations Significance Determination Process." dated May 9, 2014. In accordance with Appendix G, Exhibit 4, "Barrier Integrity Screening Questions,"

Question B.6, directs the inspectors to Appendix H if the finding degrades the ability to close or isolate the containment. In accordance with Inspection Manual Chapter 0609, Appendix H, "Containment Integrity Significance Determination Process," Section 4.1, "Types of Findings," the finding was a Type B finding because it had potentially important implications for the integrity of the containment, without affecting the likelihood of core damage. Appendix H, Section 6.2, "Approach for Assessing Type B Findings at Shutdown," Step 2.2.A directs the user to Table 6.3 with a containment status of intact. Table 6.3, "Phase 1 Screening – Type B Findings at Shutdown," requires a Phase 2 evaluation because South Texas Project has a large, dry containment and the finding affected containment isolation. Appendix H, Table 6.4, "Phase 2 Risk Significance – Type B Findings at Shutdown," provided an estimated risk significance of White because South Texas Project has a large, dry containment; the leakage from containment was greater than 100 percent volume/day; South Texas Project had in-depth shutdown mitigation capability; and for part of the exposure period, the plant was in Plant Operational State 2E.

In accordance with Appendix H, Section 2.0, "Limitations and Precautions," a more detailed assessment was performed in a Significant Determination Process Phase 3 evaluation.

The analyst performed a detailed risk evaluation of the subject performance deficiency. During the exposure period, from July 16, 2014, through October 29, 2015, the failure of the Technical Support Center diesel generator affected risk of the unit, while at power, because of the failure to provide power to the positive displacement pump for reactor coolant pump seal cooling following a postulated loss of all alternating current event. Additionally, the Technical Support Center diesel would not have fulfilled its function to provide backup power to close the containment hatch during the outage period from October 18, 2015, to October 29, 2015. These two impacts on plant risk were evaluated. Because the combined risk of the at-power and shutdown risk evaluations were lower than the threshold, the analyst determined that this non-cited violation was of very low safety significance (Green). This finding has no cross-cutting aspect assigned because the root cause of this issue occurred in 1996 and is not reflective of current licensee performance.
Inspection Report# : 2016009 *(pdf)*

Emergency Preparedness

Significance: G Sep 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Implementation of a Protective Action Recommendation Strategy That Can Recommend Unnecessary Protective Actions for the Public
The inspectors identified a Green non-cited violation of 10 CFR 50.47(b)(10) for the failure between July 16, 2015, and September 8, 2016, to develop a range of protective actions for the plume exposure emergency planning zone for the public, considering evacuation and sheltering. The licensee restored compliance by implementing procedure 0ERP01-ZV-IN07, "Offsite Protective Action Recommendations," Revision 17, effective September 28, 2016. This issue has been entered into the licensee's corrective action program as Condition Report 16-9135.

The implementation of a protective action scheme that recommends protective actions for members of the public who are not at radiological risk is a performance deficiency within the licensee's ability to foresee and correct. The finding is more than minor because it adversely affects the Emergency Planning cornerstone objective and is associated with the procedure quality and emergency response organization performance cornerstone objectives. The finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated September 22, 2015, and was determined to be of very low safety significance (Green), because it was a failure to comply with NRC regulations and was not a lost or degraded risk-significant planning standard function.

This finding has a cross-cutting aspect in the area of human performance associated with avoiding complacency, because the licensee did not challenge the basis for existing program elements in reviewing their program against the revised NUREG-0654, Supplement 3 [H.12].

Inspection Report# : 2016003 *(pdf)*

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.

Security

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Miscellaneous

Last modified : February 01, 2017

U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

South Texas 2 – Quarterly Plant Inspection Findings

2Q/2017 – Plant Inspection Findings

On this page:

Initiating Events

Mitigating Systems

Significance: G Feb 10, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Provide 8-hour Emergency Lighting for All Alternative Shutdown Manual Actions
The team identified a non-cited violation of License Condition 2.E for the failure to provide 8-hour emergency lighting in all areas where operators perform manual actions required during an alternative shutdown. As a compensatory measure, the licensee added flashlights to the procedure box in the essential cooling water intake structure. The team noted that operators were also required to carry a flashlight while on shift. The licensee entered this issue into their corrective action program as Condition Report 17-1741.

The failure to provide 8-hour emergency lighting in all areas where operators perform manual actions required during an alternative shutdown was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems Cornerstone and it 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 failure to provide 8-hour emergency lighting could adversely affect the ability of operators to perform the manual actions required for an alternative shutdown.

The team determined this finding affected the Mitigating Systems Cornerstone. The team evaluated this finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," dated September 20, 2013, because it affected the ability to reach and maintain safe shutdown conditions in case of a fire. The team determined this finding was of very low safety significance (Green) in Task 1.3.1 because it had a low degradation rating.

The finding did not have a cross-cutting aspect since it was not indicative of present performance in that the performance deficiency occurred more than three years ago. Specifically, the team determined that the performance deficiency existed since original construction.
Inspection Report# : 2017007 *(pdf)*

Barrier Integrity

Significance: G Aug 26, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Update Procedure Reference Leads to Non-functional Unit 1 Technical Support Center Diesel Generator
The team is documenting a self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to follow Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 2. Specifically, on January 16, 1996, the licensee failed to identify and correct changes to drawing and breaker overhaul procedures, which resulted from Design Change Package 93-3409-4, "Circuit Breaker Replacement-Load Center 1W," in accordance with Step 4.2.2.5 of the procedure. This resulted in electrical maintenance personnel using an incorrect drawing and procedure during a technical support center diesel generator supply breaker overhaul, on July 16, 2014, which left in place internal jumper cables that prevented the supply breaker from automatically closing.

The inspectors determined that the failure to follow Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 2, was a performance deficiency. In accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Screening," the performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the structure, system, and component, and barrier performance - containment isolation, attribute of the Barrier Integrity Cornerstone, and affected the associated cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the finding adversely affected the Technical Support Center diesel generator's capability to supply ac power to the containment hatch hoists in order to close that hatch in the event of a loss of offsite power during outage conditions. Using Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," the inspectors determined that the finding could be evaluated using the significance determination process. In accordance with Table 3, "SDP Appendix Router," the inspectors determined that the subject finding would be processed through Appendix G, "Shutdown Operations Significance Determination Process." dated May 9, 2014. In accordance with Appendix G, Exhibit 4, "Barrier Integrity Screening Questions," Question B.6, directs the inspectors to Appendix H if the finding degrades the ability to close or isolate the containment. In accordance with Inspection Manual Chapter 0609, Appendix H, "Containment Integrity Significance Determination Process," Section 4.1, "Types of Findings," the finding was a Type B finding because it had potentially important implications for the integrity of the containment, without affecting the likelihood of core damage. Appendix H, Section 6.2, "Approach for Assessing Type B Findings at Shutdown," Step 2.2.A directs the user to Table 6.3 with a containment status of intact. Table 6.3, "Phase 1 Screening - Type B Findings at Shutdown," requires a Phase 2 evaluation because South Texas Project has a large, dry containment and the finding affected containment isolation. Appendix H, Table 6.4, "Phase 2 Risk Significance - Type B Findings at Shutdown," provided an estimated risk significance of White because South Texas Project has a large, dry containment; the leakage from containment was greater than 100 percent volume/day; South Texas Project had in-depth shutdown mitigation capability; and for part of the exposure period, the plant was in Plant Operational State 2E.

In accordance with Appendix H, Section 2.0, "Limitations and Precautions," a more detailed assessment was performed in a Significant Determination Process Phase 3 evaluation.

The analyst performed a detailed risk evaluation of the subject performance deficiency. During the exposure period, from July 16, 2014, through October 29, 2015, the failure of the Technical Support Center diesel generator affected risk of the unit, while at power, because of the failure to provide power to the positive displacement pump for reactor coolant pump seal cooling following a postulated loss of all alternating current event. Additionally, the Technical Support Center diesel would not have fulfilled its function to provide backup power to close the containment hatch during the outage period from October 18, 2015, to October 29, 2015. These two impacts on plant risk were evaluated. Because the combined risk of the at-power and shutdown risk evaluations were lower than the threshold, the analyst determined that this non-cited violation was of very low safety significance (Green). This finding has no cross-cutting aspect assigned because the root cause of this issue occurred in 1996 and is not reflective of current licensee performance.
Inspection Report# : 2016009 *(pdf)*

Emergency Preparedness

Significance: G Sep 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Implementation of a Protective Action Recommendation Strategy That Can Recommend Unnecessary Protective Actions for the Public
The inspectors identified a Green non-cited violation of 10 CFR 50.47(b)(10) for the failure between July 16, 2015, and September 8, 2016, to develop a range of protective actions for the plume exposure emergency planning zone for the public, considering evacuation and sheltering. The licensee restored compliance by implementing procedure 0ERP01-ZV-IN07, "Offsite Protective Action Recommendations," Revision 17, effective September 28, 2016. This issue has been entered into the licensee's corrective action program as Condition Report 16-9135.

The implementation of a protective action scheme that recommends protective actions for members of the public who are not at radiological risk is a performance deficiency within the licensee's ability to foresee and correct. The finding is more than minor because it adversely affects the Emergency Planning cornerstone objective and is associated with the procedure quality and emergency response organization performance cornerstone objectives. The finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated September 22, 2015, and was determined to be of very low safety significance (Green), because it was a failure to comply with NRC regulations and was not a lost or degraded risk-significant planning standard function. This finding has a cross-cutting aspect in the area of human performance associated with avoiding complacency, because the licensee did not challenge the basis for existing program elements in reviewing their program against the revised NUREG-0654, Supplement 3 [H.12].

Inspection Report# : 2016003 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : August 03, 2017

Page Last Reviewed/Updated Thursday, August 11, 2016

South Texas 2 – Quarterly Plant Inspection Findings

2Q/2017 – Plant Inspection Findings

On this page:

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Establish Procedures for Control of High-Energy Line Break Barriers
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for failure to establish adequate procedures for the control of high-energy line break barriers. Specifically, on July 21, 2016, the inspectors identified that Procedure 0PGP03 ZA-0514, "Controlled System or Barrier Impairment," Revision 14, did not have any guidance on the control of barriers used for high energy line breaks, despite the fact that the auxiliary feedwater pump room watertight doors are credited in the safety analyses for protection against such breaks. After discussing the acceptability of having both doors open simultaneously, the licensee shut the watertight door to auxiliary feedwater pump room for train A, and entered this condition into the licensee's corrective action program as Condition Report 2016-9006.

The failure to prescribe procedures for the control of high-energy line break doors was a performance deficiency. This finding was more than minor because it was associated with the procedure quality 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, Procedure 0PGP03 ZA-0514, "Controlled System or Barrier Impairment," Revision 14, did not provide adequate procedures for the control of hazard barriers, which called the operability of the train A auxiliary feedwater system into question. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant

due to seismic, flooding, or severe weather. The NRC determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency did not reflect current licensee performance. Specifically, the auxiliary feedwater pump evaluation was performed in 2000; therefore, the performance deficiency occurred outside of the nominal 3-year period for "present performance."
Inspection Report# : 2017002 *(pdf)*

Significance: G Jun 30, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure To Establish Adequate Procedures To Ensure Emergency Diesel Generator Access Flood Panels Would Meet Their Safety Function
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to provide adequate written instructions for performing preventative maintenance to ensure the emergency diesel generator building access flood panels remain capable of performing their safety function. Specifically, the preventative maintenance work order model number 61046 was not adequate to detect degraded seal conditions, which were revealed during the flooding event on March 17, 2017. This issue was entered into the licensees' corrective action program as Condition Report 2017-12897. The licensee assembled a panel of individuals who were familiar with the design, and individuals responsible for the maintenance of these access panels and is still considering options to prevent future leakage.

The failure to provide adequate written instructions for performing preventative maintenance to ensure diesel generator building access flood panels remain capable of performing their safety function was a performance deficiency. Specifically, preventative maintenance work order model number 61046 was not adequate to detect degraded seal conditions, which were revealed during the flooding event on March 17, 2017. The performance deficiency is more than minor, and therefore a finding, because it is associated with the protection against external factors attribute of the Mitigating Systems Cornerstone and adversely 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 identify degrading flood barriers could result in emergency diesel generator inoperability or failure during a design basis flooding event. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated July 1, 2012, Exhibit 2, "Mitigating System Screening Questions," the finding was determined to of very low safety significance (Green). Specifically, the finding was not a deficiency affecting the design or qualification of a mitigating structure, system, and component; did not represent a loss of system and/or function; did not represent an actual loss of function of at least a single train for greater than its technical specification allowed outage time; and did not represent an actual loss of function of one or more than non-technical specification trains of equipment designated as high-risk significance for greater than 24 hours. The inspectors determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency did not reflect current licensee performance. Specifically, the emergency diesel generator access panels had not allowed water intrusion due to flooding within the last 3 years and, therefore, the licensee did not have a recent opportunity to understand that the preventative maintenance work order instructions were inadequate.
Inspection Report# : 2017002 *(pdf)*

Significance: G Feb 10, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Provide 8-hour Emergency Lighting for All Alternative Shutdown Manual Actions
The team identified a non-cited violation of License Condition 2.E for the failure to provide 8-hour emergency lighting in all areas where operators perform manual actions required during an alternative shutdown. As a compensatory measure, the licensee added flashlights to the procedure box in the essential cooling water intake structure. The team

noted that operators were also required to carry a flashlight while on shift. The licensee entered this issue into their corrective action program as Condition Report 17-1741.

The failure to provide 8-hour emergency lighting in all areas where operators perform manual actions required during an alternative shutdown was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems Cornerstone and it 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 failure to provide 8-hour emergency lighting could adversely affect the ability of operators to perform the manual actions required for an alternative shutdown.

The team determined this finding affected the Mitigating Systems Cornerstone. The team evaluated this finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," dated September 20, 2013, because it affected the ability to reach and maintain safe shutdown conditions in case of a fire. The team determined this finding was of very low safety significance (Green) in Task 1.3.1 because it had a low degradation rating.

The finding did not have a cross-cutting aspect since it was not indicative of present performance in that the performance deficiency occurred more than three years ago. Specifically, the team determined that the performance deficiency existed since original construction.
Inspection Report# : 2017007 *(pdf)*

Barrier Integrity

Significance: G Aug 26, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Update Procedure Reference Leads to Non-functional Unit 1 Technical Support Center Diesel Generator
The team is documenting a self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to follow Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 2. Specifically, on January 16, 1996, the licensee failed to identify and correct changes to drawing and breaker overhaul procedures, which resulted from Design Change Package 93-3409-4, "Circuit Breaker Replacement-Load Center 1W," in accordance with Step 4.2.2.5 of the procedure. This resulted in electrical maintenance personnel using an incorrect drawing and procedure during a technical support center diesel generator supply breaker overhaul, on July 16, 2014, which left in place internal jumper cables that prevented the supply breaker from automatically closing.

The inspectors determined that the failure to follow Procedure 0PGP04-ZE-0309, "Design Change Package," Revision 2, was a performance deficiency. In accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Screening," the performance deficiency was determined to be more than minor, and therefore a finding, because it was associated with the structure, system, and component, and barrier performance - containment isolation, attribute of the Barrier Integrity Cornerstone, and affected the associated cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the finding adversely affected the Technical Support Center diesel generator's capability to supply ac power to the containment hatch hoists in order to close that hatch in the event of a loss of offsite power during outage conditions. Using Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," the inspectors determined that the finding could be evaluated using the significance determination process. In accordance with Table 3, "SDP Appendix Router," the inspectors determined that the subject

finding would be processed through Appendix G, "Shutdown Operations Significance Determination Process." dated May 9, 2014. In accordance with Appendix G, Exhibit 4, "Barrier Integrity Screening Questions," Question B.6, directs the inspectors to Appendix H if the finding degrades the ability to close or isolate the containment. In accordance with Inspection Manual Chapter 0609, Appendix H, "Containment Integrity Significance Determination Process," Section 4.1, "Types of Findings," the finding was a Type B finding because it had potentially important implications for the integrity of the containment, without affecting the likelihood of core damage. Appendix H, Section 6.2, "Approach for Assessing Type B Findings at Shutdown," Step 2.2.A directs the user to Table 6.3 with a containment status of intact. Table 6.3, "Phase 1 Screening - Type B Findings at Shutdown," requires a Phase 2 evaluation because South Texas Project has a large, dry containment and the finding affected containment isolation. Appendix H, Table 6.4, "Phase 2 Risk Significance - Type B Findings at Shutdown," provided an estimated risk significance of White because South Texas Project has a large, dry containment; the leakage from containment was greater than 100 percent volume/day; South Texas Project had in-depth shutdown mitigation capability; and for part of the exposure period, the plant was in Plant Operational State 2E.

In accordance with Appendix H, Section 2.0, "Limitations and Precautions," a more detailed assessment was performed in a Significant Determination Process Phase 3 evaluation.

The analyst performed a detailed risk evaluation of the subject performance deficiency. During the exposure period, from July 16, 2014, through October 29, 2015, the failure of the Technical Support Center diesel generator affected risk of the unit, while at power, because of the failure to provide power to the positive displacement pump for reactor coolant pump seal cooling following a postulated loss of all alternating current event. Additionally, the Technical Support Center diesel would not have fulfilled its function to provide backup power to close the containment hatch during the outage period from October 18, 2015, to October 29, 2015. These two impacts on plant risk were evaluated. Because the combined risk of the at-power and shutdown risk evaluations were lower than the threshold, the analyst determined that this non-cited violation was of very low safety significance (Green). This finding has no cross-cutting aspect assigned because the root cause of this issue occurred in 1996 and is not reflective of current licensee performance.
Inspection Report# : 2016009 *(pdf)*

Emergency Preparedness

Significance: G Sep 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Implementation of a Protective Action Recommendation Strategy That Can Recommend Unnecessary Protective Actions for the Public
The inspectors identified a Green non-cited violation of 10 CFR 50.47(b)(10) for the failure between July 16, 2015, and September 8, 2016, to develop a range of protective actions for the plume exposure emergency planning zone for the public, considering evacuation and sheltering. The licensee restored compliance by implementing procedure 0ERP01-ZV-IN07, "Offsite Protective Action Recommendations," Revision 17, effective September 28, 2016. This issue has been entered into the licensee's corrective action program as Condition Report 16-9135.

The implementation of a protective action scheme that recommends protective actions for members of the public who are not at radiological risk is a performance deficiency within the licensee's ability to foresee and correct. The finding is more than minor because it adversely affects the Emergency Planning cornerstone objective and is associated with the procedure quality and emergency response organization performance cornerstone objectives. The finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated September 22, 2015, and was determined to be of very low safety significance (Green), because it was a failure to comply with NRC regulations and was not a lost or degraded risk-significant planning standard function. This finding

has a cross-cutting aspect in the area of human performance associated with avoiding complacency, because the licensee did not challenge the basis for existing program elements in reviewing their program against the revised NUREG-0654, Supplement 3 [H.12].

Inspection Report# : 2016003 *(pdf)*

Occupational Radiation Safety
Public Radiation Safety
Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : September 05, 2017

Page Last Reviewed/Updated Wednesday, June 07, 2017

U.S.NRC
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South Texas 2 – Quarterly Plant Inspection Findings

3Q/2017 – Plant Inspection Findings

On this page:

Initiating Events
Mitigating Systems

Significance: G Jun 30, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Establish Procedures for Control of High-Energy Line Break Barriers
The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for failure to establish adequate procedures for the control of high-energy line break barriers. Specifically, on July 21, 2016, the inspectors identified that Procedure 0PGP03 ZA-0514, "Controlled System or Barrier Impairment," Revision 14, did not have any guidance on the control of barriers used for high energy line breaks, despite the fact that the auxiliary feedwater pump room watertight doors are credited in the safety analyses for protection against such breaks. After discussing the acceptability of having both doors open simultaneously, the licensee shut the watertight door to auxiliary feedwater pump room for train A, and entered this condition into the licensee's corrective action program as Condition Report 2016-9006.

The failure to prescribe procedures for the control of high-energy line break doors was a performance deficiency. This finding was more than minor because it was associated with the procedure quality 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, Procedure 0PGP03 ZA-0514, "Controlled System or Barrier Impairment," Revision 14, did not provide adequate procedures for the control of hazard barriers, which called the operability of the train A auxiliary feedwater system into question. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant

due to seismic, flooding, or severe weather. The NRC determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency did not reflect current licensee performance. Specifically, the auxiliary feedwater pump evaluation was performed in 2000; therefore, the performance deficiency occurred outside of the nominal 3-year period for "present performance."
Inspection Report# : 2017002 *(pdf)*

Significance: G Jun 30, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure To Establish Adequate Procedures To Ensure Emergency Diesel Generator Access Flood Panels Would Meet Their Safety Function
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to provide adequate written instructions for performing preventative maintenance to ensure the emergency diesel generator building access flood panels remain capable of performing their safety function. Specifically, the preventative maintenance work order model number 61046 was not adequate to detect degraded seal conditions, which were revealed during the flooding event on March 17, 2017. This issue was entered into the licensees' corrective action program as Condition Report 2017-12897. The licensee assembled a panel of individuals who were familiar with the design, and individuals responsible for the maintenance of these access panels and is still considering options to prevent future leakage.

The failure to provide adequate written instructions for performing preventative maintenance to ensure diesel generator building access flood panels remain capable of performing their safety function was a performance deficiency. Specifically, preventative maintenance work order model number 61046 was not adequate to detect degraded seal conditions, which were revealed during the flooding event on March 17, 2017. The performance deficiency is more than minor, and therefore a finding, because it is associated with the protection against external factors attribute of the Mitigating Systems Cornerstone and adversely 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 identify degrading flood barriers could result in emergency diesel generator inoperability or failure during a design basis flooding event. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated July 1, 2012, Exhibit 2, "Mitigating System Screening Questions," the finding was determined to of very low safety significance (Green). Specifically, the finding was not a deficiency affecting the design or qualification of a mitigating structure, system, and component; did not represent a loss of system and/or function; did not represent an actual loss of function of at least a single train for greater than its technical specification allowed outage time; and did not represent an actual loss of function of one or more than non-technical specification trains of equipment designated as high-risk significance for greater than 24 hours. The inspectors determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency did not reflect current licensee performance. Specifically, the emergency diesel generator access panels had not allowed water intrusion due to flooding within the last 3 years and, therefore, the licensee did not have a recent opportunity to understand that the preventative maintenance work order instructions were inadequate.
Inspection Report# : 2017002 *(pdf)*

Significance: G Feb 10, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Provide 8-hour Emergency Lighting for All Alternative Shutdown Manual Actions
The team identified a non-cited violation of License Condition 2.E for the failure to provide 8-hour emergency lighting in all areas where operators perform manual actions required during an alternative shutdown. As a compensatory measure, the licensee added flashlights to the procedure box in the essential cooling water intake structure. The team

noted that operators were also required to carry a flashlight while on shift. The licensee entered this issue into their corrective action program as Condition Report 17-1741.

The failure to provide 8-hour emergency lighting in all areas where operators perform manual actions required during an alternative shutdown was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems Cornerstone and it 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 failure to provide 8-hour emergency lighting could adversely affect the ability of operators to perform the manual actions required for an alternative shutdown.

The team determined this finding affected the Mitigating Systems Cornerstone. The team evaluated this finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," dated September 20, 2013, because it affected the ability to reach and maintain safe shutdown conditions in case of a fire. The team determined this finding was of very low safety significance (Green) in Task 1.3.1 because it had a low degradation rating.

The finding did not have a cross-cutting aspect since it was not indicative of present performance in that the performance deficiency occurred more than three years ago. Specifically, the team determined that the performance deficiency existed since original construction.
Inspection Report# : 2017007 *(pdf)*

Barrier Integrity
Emergency Preparedness

Significance: G Sep 04, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Conduct Drills In Accordance with the Site Emergency Plan
The inspectors identified a non-cited violation of 10 CFR 50.54(q)(2) associated with the licensee's failure to conduct correctly scoped drills as required by the site emergency plan in 2015 and 2016. Annually, the licensee was required to conduct a radiological monitoring drill involving taking samples on-site and offsite of air, vegetation, soil, and water samples. Semiannually, the licensee was required to conduct health physics drills which involved response to and analysis of simulated elevated airborne and liquid samples. During these years, the licensee failed to evaluate emergency response personnel demonstrating abilities addressing all of these criteria. This violation is not an immediate safety concern because drills were conducted involving the site health physics staff during the time period. This issue was entered into the licensee's corrective action program in Condition Reports 17-15971 and 17-15974.

The performance deficiency was more than minor because it was associated with the emergency response organization performance (drills and exercises) cornerstone attribute and adversely affected the Emergency Preparedness cornerstone objective of being capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated September 22, 2015. The finding was determined to be of very low safety significance (Green) because it was a failure to comply with NRC requirements, was not associated with the risk-significant planning standards, and was not a loss of a planning standard function. The finding had a cross-cutting aspect in the area of human performance associated with resources because the licensee's procedure defining drill objectives and demonstration criteria did not address the entire scope of the drill types in question [H.1].
Inspection Report# : 2017010 *(pdf)*

Occupational Radiation Safety
Public Radiation Safety
Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : November 29, 2017

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South Texas 2 – Quarterly Plant Inspection Findings

4Q/2017 – Plant Inspection Findings

On this page:

Initiating Events

Mitigating Systems

Significance: G Aug 14, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Establish Procedures for Control of High-Energy Line Break Barriers

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for failure to establish adequate procedures for the control of high-energy line break barriers. Specifically, on July 21, 2016, the inspectors identified that Procedure 0PGP03 ZA-0514, "Controlled System or Barrier Impairment," Revision 14, did not have any guidance on the control of barriers used for high energy line breaks, despite the fact that the auxiliary feedwater pump room watertight doors are credited in the safety analyses for protection against such breaks. After discussing the acceptability of having both doors open simultaneously, the licensee shut the watertight door to auxiliary feedwater pump room for train A, and entered this condition into the licensee's corrective action program as Condition Report 2016-9006.

The failure to prescribe procedures for the control of high-energy line break doors was a performance deficiency. This finding was more than minor because it was associated with the procedure quality 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, Procedure 0PGP03 ZA-0514, "Controlled System or Barrier Impairment," Revision 14, did not provide adequate procedures for the control of hazard barriers, which called the operability of the train A auxiliary feedwater system into question. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very

low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The NRC determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency did not reflect current licensee performance. Specifically, the auxiliary feedwater pump evaluation was performed in 2000; therefore, the performance deficiency occurred outside of the nominal 3-year period for "present performance."

Inspection Report# : 2017002 *(pdf)*

Significance: G Jun 30, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure To Establish Adequate Procedures To Ensure Emergency Diesel Generator Access Flood Panels Would Meet Their Safety Function
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to provide adequate written instructions for performing preventative maintenance to ensure the emergency diesel generator building access flood panels remain capable of performing their safety function. Specifically, the preventative maintenance work order model number 61046 was not adequate to detect degraded seal conditions, which were revealed during the flooding event on March 17, 2017. This issue was entered into the licensees' corrective action program as Condition Report 2017-12897. The licensee assembled a panel of individuals who were familiar with the design, and individuals responsible for the maintenance of these access panels and is still considering options to prevent future leakage.

The failure to provide adequate written instructions for performing preventative maintenance to ensure diesel generator building access flood panels remain capable of performing their safety function was a performance deficiency. Specifically, preventative maintenance work order model number 61046 was not adequate to detect degraded seal conditions, which were revealed during the flooding event on March 17, 2017. The performance deficiency is more than minor, and therefore a finding, because it is associated with the protection against external factors attribute of the Mitigating Systems Cornerstone and adversely 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 identify degrading flood barriers could result in emergency diesel generator inoperability or failure during a design basis flooding event. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated July 1, 2012, Exhibit 2, "Mitigating System Screening Questions," the finding was determined to of very low safety significance (Green). Specifically, the finding was not a deficiency affecting the design or qualification of a mitigating structure, system, and component; did not represent a loss of system and/or function; did not represent an actual loss of function of at least a single train for greater than its technical specification allowed outage time; and did not represent an actual loss of function of one or more than non-technical specification trains of equipment designated as high-risk significance for greater than 24 hours. The inspectors determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency did not reflect current licensee performance. Specifically, the emergency diesel generator access panels had not allowed water intrusion due to flooding within the last 3 years and, therefore, the licensee did not have a recent opportunity to understand that the preventative maintenance work order instructions were inadequate.
Inspection Report# : 2017002 *(pdf)*

Significance: G Feb 10, 2017
Identified By: NRC

Item Type: NCV Non-Cited Violation
Failure to Provide 8-hour Emergency Lighting for All Alternative Shutdown Manual Actions
The team identified a non-cited violation of License Condition 2.E for the failure to provide 8-hour emergency lighting in all areas where operators perform manual actions required during an alternative shutdown. As a compensatory measure, the licensee added flashlights to the procedure box in the essential cooling water intake structure. The team noted that operators were also required to carry a flashlight while on shift. The licensee entered this issue into their corrective action program as Condition Report 17-1741.

The failure to provide 8-hour emergency lighting in all areas where operators perform manual actions required during an alternative shutdown was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems Cornerstone and it 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 failure to provide 8-hour emergency lighting could adversely affect the ability of operators to perform the manual actions required for an alternative shutdown.

The team determined this finding affected the Mitigating Systems Cornerstone. The team evaluated this finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," dated September 20, 2013, because it affected the ability to reach and maintain safe shutdown conditions in case of a fire. The team determined this finding was of very low safety significance (Green) in Task 1.3.1 because it had a low degradation rating.

The finding did not have a cross-cutting aspect since it was not indicative of present performance in that the performance deficiency occurred more than three years ago. Specifically, the team determined that the performance deficiency existed since original construction.
Inspection Report# : 2017007 *(pdf)*

Barrier Integrity
Emergency Preparedness

Significance: G Sep 13, 2017
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Conduct Drills In Accordance with the Site Emergency Plan
The inspectors identified a non-cited violation of 10 CFR 50.54(q)(2) associated with the licensee's failure to conduct correctly scoped drills as required by the site emergency plan in 2015 and 2016. Annually, the licensee was required to conduct a radiological monitoring drill involving taking samples on-site and offsite of air, vegetation, soil, and water samples. Semiannually, the licensee was required to conduct health physics drills which involved response to and analysis of simulated elevated airborne and liquid samples. During these years, the licensee failed to evaluate emergency response personnel demonstrating abilities addressing all of these criteria. This violation is not an immediate safety concern because drills were conducted involving the site health physics staff during the time period. This issue was entered into the licensee's corrective action program in Condition Reports 17-15971 and 17-15974.

The performance deficiency was more than minor because it was associated with the emergency response organization performance (drills and exercises) cornerstone attribute and adversely affected the Emergency Preparedness cornerstone objective of being capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated September 22, 2015. The finding was determined to be of very low safety significance (Green) because it was a failure to comply with NRC requirements,

was not associated with the risk-significant planning standards, and was not a loss of a planning standard function. The finding had a cross-cutting aspect in the area of human performance associated with resources because the licensee's procedure defining drill objectives and demonstration criteria did not address the entire scope of the drill types in question [H.1].
Inspection Report# : 2017010 *(pdf)*

Occupational Radiation Safety
Public Radiation Safety
Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : February 01, 2018

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