



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION IV  
1600 EAST LAMAR BLVD  
ARLINGTON, TEXAS 76011-4511

August 2, 2012

Mr. Kevin D. Richards  
President and Chief Executive Officer  
STP Nuclear Operating Company  
P.O. Box 289  
Wadsworth, TX 77483

Subject: SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION - NRC INTEGRATED  
INSPECTION REPORT 05000498/2012003 AND 05000499/2012003

Dear Mr. Richards:

On June 29, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your South Texas Project Electric Generating Station, Units 1 and 2, facility. The enclosed inspection report documents the inspection results which were discussed on July 5, 2012, with Mr. G. Powell, Vice President, Generation, Units 1 and 2, and other members of your staff.

The inspections examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Two NRC-identified findings of very low safety significance (Green) were identified during this inspection.

These findings were determined to involve violations of NRC requirements. Additionally, the NRC has determined that a traditional enforcement Severity Level IV violation occurred. This traditional enforcement violation was identified with an associated licensee-identified violation, which was determined to be of very low safety significance and is listed in this report. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest any of these non-cited violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the South Texas Project Electric Generating Station, Units 1 and 2, facility.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region IV; and the NRC Resident Inspector at the South Texas Project Electric Generating Station, Units 1 and 2, facility.

K. Richards

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Wayne C. Walker, Branch Chief  
Project Branch A  
Division of Reactor Projects

Docket Nos.: 50-498, 50-499  
License Nos.: NPF-76, NPF-80

Enclosure: Inspection Report 05000498/2012003 and 05000499/2012003  
w/Attachment: Supplemental Information

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 05000498, 05000499

License: NPF-76, NPF-80

Report: 05000498/2012003 and 05000499/2012003

Licensee: STP Nuclear Operating Company

Facility: South Texas Project Electric Generating Station, Units 1 and 2

Location: FM521 - 8 miles west of Wadsworth  
Wadsworth, Texas 77483

Dates: March 31 through June 29, 2012

Inspectors: J. Dixon, Senior Resident Inspector  
B. Tharakan, CHP, Resident Inspector  
B. Correll, Reactor Inspector  
S. Cumblidge, Materials Engineer  
P. Elkmann, Senior Emergency Preparedness Inspector  
G. Guerra, CHP, Emergency Preparedness Inspector  
R. Kopriva, Senior Reactor Inspector  
R. Latta, Senior Reactor Inspector

Approved By: Wayne Walker, Chief, Project Branch A  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000498/2012003, 05000499/2012003; 03/31/2012 – 06/29/2012; South Texas Project Electric Generating Station, Units 1 and 2, Integrated Resident and Regional Report; Operability Evaluations and Functionality Assessments; Followup of Events.

The report covered a 3-month period of inspection by resident inspectors and announced baseline inspections by region-based inspectors. Two Green and one Severity Level IV non-cited violations were identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process." The cross-cutting aspect is determined using Inspection Manual Chapter 0310, "Components Within the Cross-Cutting Areas." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### A. NRC-Identified Findings and Self-Revealing Findings

#### Cornerstone: Initiating Events

- Severity Level IV. 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 (Section 4OA3).

#### Cornerstone: Mitigating Systems

- Green. The inspectors identified a non-cited violation of 10 CFR 50.55a(g)(4) for the failure to follow in-service inspection requirements of Section XI of the 2004 ASME Boiler and Pressure Vessel Code. Specifically, the inspectors determined that the licensee had not correctly applied Section XI, IWA-5250, to boric acid residues that were discovered under the base lip of the refueling water storage tank on September 20, 2011. The inspectors questioned the licensee's operability determination of fully operable and engineering disposition of "acceptable for use," because the degradation mechanism was not readily

apparent and the licensee had not characterized the flaw. The licensee documented the issues in Condition Reports 12-20019 and 12-20026 and changed the operability determination to operable but degraded.

This finding is more than minor because it 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, and if left uncorrected it would have the potential to become a more significant safety concern because the structural integrity of the safety injection system's primary source of cooling water could be compromised. 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 a human performance cross-cutting aspect associated with decision making because the licensee did not make safety-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained [H.1(a)] (Section 1R15.1).

#### Cornerstone: Barrier Integrity

- Green. 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)] (Section 1R15.2).

**B. Licensee-Identified Violations**

A violation of very low safety significance that was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and the associated corrective action tracking numbers are listed in Section 4OA7 of this report.

## REPORT DETAILS

### Summary of Plant Status

Unit 1 began the inspection period at 70 percent power as a result of restoring the plant from dropped shutdown rod M-14. Unit 1 achieved 100 percent power on March 31, 2012, and remained there for the duration of the inspection period.

Unit 2 began the inspection period in Mode 5, cold shutdown, in Forced Outage 2F1102 as a result of a main generator ground which caused a turbine trip and reactor trip on November 29, 2011, and remained there until April 21, 2012, when the unit went critical and entered Mode 1. On April 22, 2012, the main generator output breaker was closed and power escalation began. Unit 2 reached 100 percent power on April 24, 2012, and remained there for the duration of the inspection period.

### 1. REACTOR SAFETY

#### Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

#### 1R01 Adverse Weather Protection (71111.01)

##### Summer Readiness for Offsite and Alternate-AC Power

##### a. Inspection Scope

The inspectors performed a review of preparations for summer weather for selected systems, including conditions that could lead to loss-of-offsite power and conditions that could result from high temperatures. The inspectors reviewed the procedures affecting these areas and the communications protocols between the transmission system operator and the plant to verify that the appropriate information was being exchanged when issues arose that could affect the offsite power system. Examples of aspects considered in the inspectors' review included:

- The coordination between the transmission system operator and the plant's operations personnel during off-normal or emergency events
- The explanations for the events
- The estimates of when the offsite power system would be returned to a normal state
- The notifications from the transmission system operator to the plant when the offsite power system was returned to normal

During the inspection, the inspectors focused on plant-specific design features and the procedures used by plant personnel to mitigate or respond to adverse weather conditions. Additionally, the inspectors reviewed the UFSAR and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant-specific procedures. Specific documents reviewed



during this inspection are listed in the attachment. The inspectors also reviewed corrective action program items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their corrective action program in accordance with station corrective action procedures. The inspectors' reviews focused specifically on the following plant systems:

- June 12, 2012, Units 1 and 2, standby, auxiliary and emergency transformers, engineered safety features transformers, and standby diesel generators

These activities constitute completion of one readiness for summer weather affect on offsite and alternate-ac power sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings were identified.

**1R04 Equipment Alignments (71111.04)**

.1 Partial Walkdown

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- April 5-6, 2012, Unit 2, spent fuel pool cooling and cleanup system train A
- April 5-6, 2012, Unit 2, spent fuel pool cooling and cleanup system train B

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could affect the function of the system, and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, UFSAR, technical specification requirements, administrative technical specifications, outstanding work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also inspected accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of two partial system walkdown samples as defined in Inspection Procedure 71111.04-05.

- b. Findings  
No findings were identified.

.2 Complete Walkdown

a. Inspection Scope

On June 27, 2012, the inspectors performed a complete system alignment inspection of the Unit 2 standby diesel generator 21 to verify the functional capability of the system. The inspectors selected this system because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors inspected the system to review mechanical and electrical equipment line ups, electrical power availability, system pressure and temperature indications, as appropriate, component labeling, component lubrication, component and equipment cooling, hangers and supports, operability of support systems, and to ensure that ancillary equipment or debris did not interfere with equipment operation. The inspectors reviewed a sample of past and outstanding work orders to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the corrective action program database to ensure that system equipment-alignment problems were being identified and appropriately resolved. Specific documents reviewed during this inspection are listed in the attachment. These activities constitute completion of one complete system walkdown sample as defined in Inspection Procedure 71111.04-05.

- b. Findings  
No findings were identified.

**1R05 Fire Protection (71111.05)**

Quarterly Fire Inspection Tours

a. Inspection Scope

The inspectors conducted fire protection walkdowns that were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- April 21, 2012, Unit 2, cable area train A, Fire Zone Z025
- April 23, 2012, Unit 1, cable area train A, Fire Zone Z025
- April 23, 2012, Unit 2, cable area train B, Fire Zone Z018
- April 24, 2012, Unit 1, cable area train B, Fire Zone Z018

The inspectors reviewed areas to assess if licensee personnel had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant; effectively maintained fire detection and suppression capability; maintained passive fire protection features in good material condition; and had implemented adequate compensatory measures for out of service, degraded or inoperable fire protection equipment, systems, or features, in accordance with the licensee's fire plan.

The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to affect equipment that could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's corrective action program. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four quarterly fire-protection inspection samples as defined in Inspection Procedure 71111.05-05.

b. Findings

No findings were identified.

**1R06 Flood Protection Measures (71111.06)**

a. Inspection Scope

The inspectors reviewed the UFSAR, the flooding analysis, and plant procedures to assess susceptibilities involving internal flooding; reviewed the corrective action program to determine if licensee personnel identified and corrected flooding problems; inspected underground bunkers/manholes to verify the adequacy of sump pumps, level alarm circuits, cable splices subject to submergence, and drainage for bunkers/manholes; and verified that operator actions for coping with flooding can reasonably achieve the desired outcomes. The inspectors also inspected the areas listed below to verify the adequacy of equipment seals located below the flood line, floor and wall penetration seals, watertight door seals, common drain lines and sumps, sump pumps, level alarms, and control circuits, and temporary or removable flood barriers. Specific documents reviewed during this inspection are listed in the attachment.

- April 18, 2012, Units 1 and 2, spent fuel pool cooling pump and heat exchanger rooms
- April 23, 2012, Units 1 and 2, safety-related electrical cable vault manhole inspections

These activities constitute completion of one flood protection measures inspection sample and one bunker/manhole sample as defined in Inspection Procedure 71111.06-05.

b. Findings

No findings were identified.

## **1R07 Heat Sink Performance (71111.07)**

### **a. Inspection Scope**

The inspectors reviewed licensee programs to verify heat exchanger performance and operability for the following heat exchangers:

- Unit 1, residual heat removal heat exchanger train A
- Unit 1, component cooling water heat exchanger train A
- Unit 2, emergency diesel generator 22 cooling water system train A
- Unit 2, essential chiller train B

The inspectors verified whether testing, inspection, maintenance, and chemistry control programs were adequate to ensure proper heat transfer. The inspectors verified that the periodic testing and monitoring methods, as outlined in commitments to NRC Generic Letter 89-13, utilized proper industry heat exchanger guidance. Additionally, the inspectors verified that the licensee's chemistry program ensured that biological fouling was properly controlled between tests. The inspectors reviewed previous maintenance records of the heat exchangers to verify that the licensee's heat exchanger inspections adequately addressed structural integrity and cleanliness of their tubes. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four triennial heat sink inspection samples as defined in Inspection Procedure 71111.07-05.

### **b. Findings**

No findings were identified.

## **1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11)**

### **.1 Quarterly Review of Licensed Operator Requalification Program**

#### **a. Inspection Scope**

On May 24, 2012, the inspectors observed a crew of licensed operators in the plant's simulator during training. The inspectors assessed the following areas:

- Licensed operator performance
- The quality of the training provided
- The modeling and performance of the control room simulator
- Follow-up actions taken by the licensee for identified discrepancies

These activities constitute completion of one quarterly licensed-operator requalification program sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.2 Quarterly Observation of Licensed Operator Performance

a. Inspection Scope

From April 20-21, 2012, the inspectors observed the performance of on-shift licensed operators in the plant's Unit 2 main control room. At the time of the observations, the plant was in a period of heightened activity and risk due to plant heat up to normal operating temperature and pressure, reactor startup, and closing the main generator output breaker following Forced Outage 2F1102. In addition, the inspectors assessed the operators' adherence to plant procedures, including conduct of operations procedure and other operations department policies.

These activities constitute completion of one quarterly licensed-operator performance sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

**1R12 Maintenance Effectiveness (71111.12)**

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- June 15, 2012, engineered safety features actuation system

The inspectors reviewed events such as where ineffective equipment maintenance has resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- Implementing appropriate work practices
- Identifying and addressing common cause failures
- Scoping of systems in accordance with 10 CFR 50.65(b)
- Characterizing system reliability issues for performance
- Charging unavailability for performance
- Trending key parameters for condition monitoring

- Ensuring proper classification in accordance with 10 CFR 50.65(a)(1) or (a)(2)
- Verifying appropriate performance criteria for structures, systems, and components classified as having an adequate demonstration of performance through preventive maintenance, as described in 10 CFR 50.65(a)(2), or as requiring the establishment of appropriate and adequate goals and corrective actions for systems classified as not having adequate performance, as described in 10 CFR 50.65(a)(1)

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one quarterly maintenance effectiveness sample as defined in Inspection Procedure 71111.12-05.

b. Findings

No findings were identified.

**1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)**

a. Inspection Scope

The inspectors reviewed licensee personnel's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- March 3-April 22, 2012, Unit 2, activities associated with Forced Outage 2F1102, including multiple residual heat removal pump rotations, heatup, startup, and main generator breaker closure
- April 29-May 5, 2012, Unit 1, train A medium risk work activity on qualified display processing system; essential cooling water system and essential chiller 12A maintenance; and Unit 2, train D planned maintenance
- June 25-29, 2012, Unit 2, emergent, medium risk work activity on reactor coolant system hot leg temperature indication and train D planned maintenance

The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that licensee personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When licensee personnel performed emergent work, the inspectors verified that the licensee personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk

analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed the technical specification requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of three maintenance risk assessments and emergent work control inspection samples as defined in Inspection Procedure 71111.13-05.

b. Findings

No findings were identified.

**1R15 Operability Evaluations and Functionality Assessments (71111.15)**

a. Inspection Scope

The inspectors reviewed the following assessments:

- April 18, 2012, Unit 2, safety injection check valve SI-10A, seal cap enclosure leaking and bolted joint integrity
- May 21, 2012, Unit 1 and 2, steam leakage past train C and D steam generator power operated relief valves
- June 14, 2012, Unit 1, safety injection system refueling water storage tank (RWST) flaw indications

The inspectors selected these operability and functionality assessments based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure technical specification operability was properly justified and to verify the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the technical specifications and UFSAR to the licensee's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. Additionally, the inspectors reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of three operability evaluations inspection samples as defined in Inspection Procedure 71111.15-05.

b. Findings

- .1 Introduction. The inspectors identified a non-cited violation of 10 CFR 50.55a(g)(4) for the failure to follow in-service inspection requirements of Section XI of the 2004 ASME Boiler and Pressure Vessel Code. Specifically, the inspectors determined that the licensee had not correctly applied the ASME Code, Section XI, IWA-5250, to boric acid residues that were discovered under the base lip of the RWST on September 20, 2011. The inspectors questioned the licensee's operability determination of fully operable and engineering disposition of "acceptable for use," because the degradation mechanism was not readily apparent and the licensee had not characterized the flaw.

Description. On September 20, 2011, boric acid residues were discovered under the base lip of the Unit 1 RWST in two locations near the RWST discharge line. The residues were indicative of a leak from the tank. The RWST is the primary source of borated water for the safety injection system. Upon discovery of the condition, operations personnel requested an engineering evaluation to determine if the RWST remained operable.

Engineering staff completed a material deficiency evaluation instead of a prompt operability determination evaluation and recommended that the RWST was degraded but acceptable for use. However, operations personnel determined that the RWST was fully operable instead of operable but degraded, which would have classified the condition as an NRC Regulatory Issue Summary 2005-20 issue and scheduled repairs at the next available opportunity. The licensee based their conclusion on a previous analysis that bounded a flaw from a separate leak on the opposite side of the tank that the licensee has been monitoring since 1997. The 1997 leak was from a flaw on the base lip of the RWST. The inspectors reviewed the evaluation and toured the RWST to observe the condition. The inspectors determined that the evaluation was not applicable to the current condition because the boric acid residues were under the base lip of the RWST and the stress analysis was performed for a crack on the base lip of the tank. The inspectors also questioned the validity of the licensee's original stress analysis and conclusion that the tank was fully operable.

The inspectors also notified the licensee that 10 CFR 50.55a(g)(4) requires the licensee to implement Section XI of the ASME Boiler and Pressure Vessel Code of record (ASME Code). The South Texas Project ASME Code of record is the 2004 edition. The inspectors reviewed Section XI of the 2004 ASME Code for applicability and determined that the licensee was responsible for implementing repairs to the tank to restore the tank to the original design as noted in Section III of the ASME Code. Section XI, IWA-5250, "Corrective Actions," requires that when boric acid residues are detected on components, the leakage source and the areas of general corrosion shall be located. Since the residues appeared to originate from under the base lip of the tank, the licensee could not immediately locate the source of the potential corrosion. Additionally, the licensee's original evaluation had not considered that the RWST was susceptible to general corrosion because it was made from type 304 stainless steel. The inspectors questioned the licensee's actions to defer locating and evaluating the leakage source because it was not in compliance with the code.



After further review, the licensee acknowledged that the condition of the RWST was not correctly dispositioned. Therefore, instead of requesting the approval to use an alternative method from the NRC, the licensee chose to invoke ASME Code Case N-705, "Evaluation Criteria for Temporary Acceptance of Degradation in Moderate Energy Class 2 or 3 Vessels and Tanks," and revise the prompt operability determination. The evaluation concluded the tank was operable but degraded and should be repaired at the next available opportunity. The licensee also performed a common cause analysis to determine why the ASME Code was not correctly applied to this condition. The licensee documented corrective actions for the inadequate evaluation and failure to implement the ASME Code in Condition Reports 12-20019 and 12-20026. The licensee plans to repair the RWST during the fall outage and develop a systematic process for consistently implementing the ASME Code requirements.

Analysis. The failure to follow ASME Code requirements is a performance deficiency. This finding was more than minor because it 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, and if left uncorrected it would have the potential to become a more significant safety concern because the structural integrity of the safety injection system's primary source of cooling water could be compromised. 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 a human performance cross-cutting aspect associated with decision making because the licensee did not make safety-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained [H.1(a)].

Enforcement. Title 10 of the Code of Federal Regulations, Part 50.55a(g)(4) requires, in part, that components which are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements set forth in Section XI of editions and addenda of the ASME Boiler and Pressure Vessel Code. Contrary to the above, on September 20, 2011, the licensee failed to ensure that the RWST, a Class 2 component, met the requirements set forth in Section XI of the ASME Boiler and Pressure Vessel Code. Since this violation was of very low safety significance and was documented in the licensee's corrective action program as Condition Reports 11-17459, 11-23915, 12-20019, and 12-20026, it is being treated as a non-cited violation consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000498/2012003-01, "Failure to Follow ASME Code Requirements."

- .2 Introduction. 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 – steam leakage from Unit 1 and 2 train C and D steam generator power operated relief valves. The licensee entered the condition into the corrective action program for repair at the next available opportunity.

Description. On May 21, 2012, the inspectors notified the Unit 1 and Unit 2 operations shift managers that water was dripping from the isolation valve cubicle roof at several drops per minute and to investigate further. Operations personnel confirmed that train C and D steam generator power operated relief valves in each unit were leaking steam to the atmosphere, which was condensing and dripping water onto the ground.

Station Procedure 0PGP03-ZX-0002, "Condition Reporting Process," Revision 43, and operations Procedure 0POP01-ZQ-0022, "Shift Routines," Revision 65, had requirements for initiating condition reports and corrective actions for deficiencies. In general, all station personnel, and more specifically, operations personnel, are charged with the responsibility to identify deficiencies and enter them into the licensee's corrective action program for resolution. The inspectors determined it was reasonable for the licensee to have promptly identified the leakage from the steam generator power operated relief valves and entered the conditions into the corrective action program because there were multiple steam generator power operated relief valves on each unit, and the conditions were readily apparent in an area frequently traversed by station personnel.

Analysis. The failure to promptly identify leakage from steam generator power operated relief valves is a performance deficiency. The finding is more than minor because it was 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 had 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)].

Enforcement. Title 10 of the Code of Federal Regulations, Part 50, Appendix B, Criterion XVI requires, in part, that 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. Contrary to the above, on May 21, 2012, the licensee failed to promptly identify a deficiency associated with the Unit 1 and Unit 2 train C and D steam generator power operated relief valves. Since this violation was of very low safety significance and was documented in the licensee's corrective action program as Condition Reports 12-24036, 12-21808, 12-21922, 12-21925, and 12-21943, it is being treated as a non-cited violation consistent with Section 2.3.2 of the NRC Enforcement Policy:

NCV 05000498/2012003-02 and 05000499/2012003-02, "Failure to Promptly Identify Conditions Adverse to Quality."

## **1R18 Plant Modifications (71111.18)**

### Permanent Modifications

#### a. Inspection Scope

On June 21, 2012, the inspectors completed the review of key parameters associated with materials, replacement components, equipment protection from hazards, operations, flow paths, pressure boundary, ventilation boundary, structural, process medium properties, licensing basis, and failure modes for the permanent modification identified as the Unit 2 essential cooling water system self-cleaning strainer 2B repair.

The inspectors verified that modification preparation, staging, and implementation did not impair emergency/abnormal operating procedure actions, key safety functions, or operator response to loss-of-key safety functions; post-modification testing will maintain the plant in a safe configuration during testing by verifying that unintended system interactions will not occur; systems, structures and components' performance characteristics still meet the design basis; the modification design assumptions were appropriate; the modification test acceptance criteria will be met; and licensee personnel identified and implemented appropriate corrective actions associated with permanent plant modifications. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one sample for permanent plant modifications as defined in Inspection Procedure 71111.18-05.

#### b. Findings

No findings were identified.

## **1R19 Post-maintenance Testing (71111.19)**

#### a. Inspection Scope

The inspectors reviewed the following post-maintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- April 12, 2012, Unit 1, essential chiller 12B relay and temperature switch replacements and motor oil replacement
- May 4, 2012, Unit 1, essential chiller 12A oil outlet high temperature switch replacement and pre-rotation vane and hot gas bypass motor inspection
- May 31, 2012, Unit 1, replacement of train A safety-related 125-volt DC E1A11 battery breaker

- June 25, 2012, Unit 2, standby diesel generator 22, 5-year preventative maintenance activities

The inspectors selected these activities based upon the structure, system, or component's ability to affect risk. The inspectors evaluated these activities for the following (as applicable):

- The effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed
- Acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate

The inspectors evaluated the activities against the technical specifications, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the corrective action program and that the problems were being corrected commensurate with their importance to safety. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four post-maintenance testing inspection samples as defined in Inspection Procedure 71111.19-05.

b. Findings

No findings were identified.

**1R20 Refueling and Other Outage Activities (71111.20)**

a. Inspection Scope

The inspectors reviewed the outage safety plan and contingency plans for the Unit 2 Forced Outage 2F1102, conducted November 29, 2011 through April 22, 2012, to confirm that licensee personnel had appropriately considered risk, industry experience, and previous site-specific problems in developing and implementing a plan that assured maintenance of defense in depth. During the forced outage to repair the main generator, the inspectors observed portions of the shutdown and cooldown processes and monitored licensee controls over the outage activities listed below.

- Configuration management, including maintenance of defense in depth, is commensurate with the outage safety plan for key safety functions and compliance with the applicable technical specifications when taking equipment out of service.
- Clearance activities, including confirmation that tags were properly hung and equipment appropriately configured to safely support the work or testing.

- Installation and configuration of reactor coolant pressure, level, and temperature instruments to provide accurate indication, accounting for instrument error.
- Status and configuration of electrical systems to ensure that technical specifications and outage safety-plan requirements were met, and controls over switchyard activities.
- Monitoring of decay heat removal processes, systems, and components.
- Reactor water inventory controls, including flow paths, configurations, and alternative means for inventory addition, and controls to prevent inventory loss.
- Controls over activities that could affect reactivity.
- Startup and ascension to full power operation, tracking of startup prerequisites, walkdown of the drywell (primary containment) to verify that debris had not been left which could block emergency core cooling system suction strainers, and reactor physics testing.
- Licensee identification and resolution of problems related to refueling outage activities.

Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one refueling outage and other outage inspection sample as defined in Inspection Procedure 71111.20-05.

b. Findings

No findings were identified.

**1R22 Surveillance Testing (71111.22)**

a. Inspection Scope

The inspectors reviewed the UFSAR, procedure requirements, and technical specifications to ensure that the surveillance activities listed below demonstrated that the systems, structures, and/or components tested were capable of performing their intended safety functions. The inspectors either witnessed or reviewed test data to verify that the significant surveillance test attributes were adequate to address the following:

- Preconditioning
- Evaluation of testing impact on the plant
- Acceptance criteria
- Test equipment

- Procedures
- Jumper/lifted lead controls
- Test data
- Testing frequency and method demonstrated technical specification operability
- Test equipment removal
- Restoration of plant systems
- Fulfillment of ASME Code requirements
- Updating of performance indicator data
- Engineering evaluations, root causes, and bases for returning tested systems, structures, and components not meeting the test acceptance criteria were correct
- Reference setting data
- Annunciators and alarms setpoints

The inspectors also verified that licensee personnel identified and implemented any needed corrective actions associated with the surveillance testing.

- April 2, 2012, Unit 1, monthly control rod operability surveillance testing, and increased rod exercising on shutdown bank A rod M-14 due to marginal traces
- April 19, 2012, Unit 2, digital rod position indication operability test
- May 11, 2012, Unit 2, train A engineered safety features load sequencer manual local test
- June 4, 2012, Unit 2, reactor coolant system leakage detection following Forced Outage 2F1102
- June 16, 2012, Unit 1, essential chill water pump 11C inservice test
- June 29, 2012, Unit 2, reactor coolant system hot leg channel TI-430A failure, and placement of loop C hot leg channel 430 in two thermocouple operation

Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of six surveillance testing inspection samples as defined in Inspection Procedure 71111.22-05.

b. Findings

No findings were identified.

**Cornerstone: Emergency Preparedness**

**1EP1 Exercise Evaluation (71114.01)**

a. Inspection Scope

The licensee submitted the preliminary exercise scenario on March 9, 2012, as required by Appendix E to 10 CFR Part 50, Part IV.F.2.a. The inspectors performed an in-office review of the scenario and objectives to determine if the proposed exercise acceptably tested major elements of the licensee's emergency plan, allowed for demonstration of key emergency preparedness skills, provided a challenging drill environment, avoided the preconditioning of participant responses, and supported the exercise evaluation objectives.

The inspectors observed the emergency plan exercise conducted May 9, 2012, to determine if the exercise tested major elements of the licensee's emergency plan, allowed for demonstration of key emergency preparedness skills, and avoided preconditioning participant responses. The scenario events were designed to escalate through the emergency classifications from an Alert to a General Emergency classification to demonstrate licensee personnel's capability to implement their emergency plan. The scenario simulated the following:

- Defective nuclear fuel
- A breaker explosion affecting fuel pool cooling
- A leak on a letdown heat exchanger
- Loss-of-one train of essential equipment cooling water
- Loss-of-offsite power to a vital electrical bus
- A large break in the reactor coolant system leading to reactor vessel water level below top of active fuel
- Cold leg recirculation from the containment sump
- An unisolable leak outside containment causing a radioactive release to the environment

The inspectors evaluated exercise performance by focusing on the risk-significant activities of event classification, offsite notification, recognition of offsite dose consequences, and development of protective action recommendations in the control room simulator and the following dedicated emergency response facilities:

- Technical Support Center
- Operations Support Center
- Emergency Operations Facility

The inspectors also assessed recognition of, and response to, abnormal and emergency plant conditions; the transfer of decision-making authority and emergency function responsibilities between facilities; onsite and offsite communications; protection of emergency workers; emergency repair evaluation and capability; and the overall implementation of the emergency plan to protect public health and safety and the environment. The inspectors reviewed the current revision of the facility emergency plan, emergency plan implementing procedures associated with operation of the licensee's emergency response facilities, procedures for the performance of associated emergency functions, and other documents as listed in the attachment to this report.

The inspectors compared the observed exercise performance with the requirements in the facility emergency plan, 10 CFR 50.47(b), 10 CFR Part 50, Appendix E, and with the guidance in the emergency plan implementing procedures and other federal guidance.

The inspectors attended the post-exercise critiques in each emergency response facility to evaluate the initial licensee self-assessment of exercise performance. The inspectors also attended a formal presentation of critique items to plant management conducted on May 30, 2012. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one sample as defined in Inspection Procedure 71114.01-05.

b. Findings

No findings were identified.

#### 4. **OTHER ACTIVITIES**

**Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Security**

##### **4OA1 Performance Indicator Verification (71151)**

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the performance indicator data submitted by the licensee for the first quarter 2012 performance indicators for any obvious inconsistencies prior to its public release in accordance with Inspection Manual Chapter 0608, "Performance Indicator Program."

This review was performed as part of the inspectors' normal plant status activities and, as such, did not constitute a separate inspection sample.



b. Findings

No findings were identified.

.2 Unplanned Scrams per 7000 Critical Hours (IE01)

a. Inspection Scope

The inspectors sampled licensee submittals for the unplanned scrams per 7000 critical hours performance indicator for Units 1 and 2 for the period from the second quarter 2011 through the first quarter 2012. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, and NRC integrated inspection reports for the period of April 2011 through March 2012 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one unplanned scrams per 7000 critical hours sample per unit as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.3 Unplanned Power Changes per 7000 Critical Hours (IE03)

a. Inspection Scope

The inspectors sampled licensee submittals for the unplanned power changes per 7000 critical hours performance indicator for Units 1 and 2 for the period from the second quarter 2011 through the first quarter 2012. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator narrative logs, issue reports, Maintenance Rule records, event reports, and NRC integrated inspection reports for the period of April 2011 through March 2012 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one unplanned transients per 7000 critical hours sample per unit as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.4 Unplanned Scrams with Complications (IE04)

a. Inspection Scope

The inspectors sampled licensee submittals for the unplanned scrams with complications performance indicator for Units 1 and 2 for the period from the second quarter 2011 through the first quarter 2012. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, and NRC integrated inspection reports for the period of April 2011 through March 2012 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one unplanned scrams with complications sample per unit as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.5 Drill/Exercise Performance (EP01)

a. Inspection Scope

The inspectors sampled licensee submittals for the drill/exercise performance performance indicator for the period July 2011 through March 2012. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the performance indicator; assessments of performance indicator opportunities during predesignated control room simulator training sessions; performance during the 2012 biennial exercise; and performance during other drills. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of the drill/exercise performance sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.6 Emergency Response Organization Drill Participation (EP02)

a. Inspection Scope

The inspectors sampled licensee submittals for the emergency response organization drill participation performance indicator for the period July 2011 through March 2012. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the performance indicator; rosters of personnel assigned to key emergency response organization positions; and exercise participation records. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of the emergency response organization drill participation sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.7 Alert and Notification System (EP03)

a. Inspection Scope

The inspectors sampled licensee submittals for the alert and notification system performance indicator for the period July 2011 through March 2012. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the performance indicator; and the results of periodic alert notification system operability tests. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of the alert and notification system sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

**4OA2 Problem Identification and Resolution (71152)**

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. The inspectors reviewed attributes that included the complete and accurate identification of the problem; the timely correction, commensurate with the safety significance; the evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews; and the classification, prioritization, focus, and timeliness of corrective actions. Minor issues entered into the licensee's corrective action program because of the inspectors' observations are included in the attached list of documents reviewed.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for followup, the inspectors performed a daily screening of items entered into the licensee's corrective action program. The inspectors accomplished this through review of the station's daily corrective action documents.

The inspectors performed these daily reviews as part of their daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's corrective action program and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors focused their review on repetitive equipment issues, but also considered the results of daily corrective action item screening discussed in Section 4OA2.2, above, licensee trending efforts, and licensee human performance results. The inspectors nominally considered the 6-month period of January through June 2012, although some examples expanded beyond those dates where the scope of the trend warranted.

The inspectors also included issues documented outside the normal corrective action program in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self-assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's corrective action program trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

These activities constitute completion of one single semi-annual trend inspection sample as defined in Inspection Procedure 71152-05.

b. Findings

No findings were identified.

**4OA3 Followup of Events and Notices of Enforcement Discretion (71153)**

(Closed) Licensee Event Report (LER) 05000498/2011-001, Revision 1, "Technical Specification Requirement Not Met Regarding Unborated Water Sources"

On April 30, 2011, during Refueling Outage 1RE16, Unit 1 was in Mode 5 with the reactor coolant system loops not filled when the licensee identified that Technical Specification 3.4.1.4.2.b requirements were not met because an unborated source of water was not properly secured from the reactor coolant system. During the pre-job review of a planned activity to transfer water from the boron recycle system recycle holdup tank 1B to the volume control tank, a senior reactor operator identified that two valves for the boron recycle system were not listed in the surveillance procedure used to ensure compliance with the technical specification. These valves, if left open, could have introduced unborated water from the demineralized water system into the reactor coolant system via the chemical volume and control system. The inspectors reviewed the root cause investigation, procedures, corrective action documents, and interviewed station personnel. During this review, the inspectors identified that the same conditions occurred in Unit 2 within the last 3 years and were not reported by the licensee. The original licensee event report was closed in NRC Inspection

Report 2012002. The licensee submitted Revision 1 of the LER to indicate that Unit 2 was also affected by this condition. The enforcement aspects of this finding are documented below and in Section 4OA7. This licensee event report is closed.

Introduction. 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.

Description. During the review of LER 05000498/2011-001, Revision 0, the inspectors questioned the licensee about whether the condition applied to Unit 2, and if an LER should have been submitted. Upon further review, the inspectors determined that control room logs from the 2010 Unit 2 outage indicated that the recycle holdup tank 2B as the source to refill reactor coolant system prior to restarting the unit. This indicated that the same line up as described in the LER for Unit 1 also occurred in Unit 2, and a violation of technical specification requirements had occurred (See Section 4OA7 for more on the technical specification violation).

The licensee performed an investigation and determined that this was a knowledge based human error in which the wrong conclusion was reached. The licensee implemented corrective actions to change the reportability review guidance to consider if the other unit was affected and provided training to licensing personnel.

Analysis. The failure to report the occurrence of a condition prohibited by technical specifications is a performance deficiency which impacted the regulatory process and was 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. The finding was also processed using the significance determination process and is documented in Section 4OA7.

Enforcement. Title 10 CFR 50.73(a)(2)(i)(B) requires, in part, that violations of technical specifications or conditions prohibited by technical specifications be reported to the NRC within 60 days. Contrary to the above, on July 11, 2011, the licensee submitted LER 05000498/2011-001, Revision 0, without reporting that South Texas Project Unit 2 had also violated Technical Specification 3.4.1.4.2.b. Because this violation was entered into the licensee's corrective action program as Condition Report 12-10874, it is being treated as a non-cited violation in accordance with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000499/2012003-003, "Failure to Report a Condition Prohibited by Technical Specifications."

## **4OA6 Meetings, Including Exit**

### Exit Meeting Summary

On March 23, 2012, the inspectors discussed the results of the in-office review of the preliminary exercise scenario for the biennial emergency plan exercise with Mr. M. Keyes, Senior Emergency Preparedness Specialist. The licensee acknowledged the issues presented.

On May 24, 2012, the inspectors presented the final inspection results of the triennial heat sink inspection to Mr. G. Powell, Vice President, Generation, Units 1 and 2, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On June 4, 2012, the inspectors conducted a conference call to present the results of the onsite inspection of the licensee's biennial emergency plan exercise to Mr. D. Rencurrel, Chief Nuclear Officer, and other members of the licensee's staff. The licensee acknowledged the issues presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On July 5, 2012, the inspectors presented the inspection results to Mr. G. Powell, Vice President, Generation, Units 1 and 2, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

## **4OA7 Licensee-Identified Violations**

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy for being dispositioned as a non-cited violation.

- .1 Technical Specification 3.4.1.4.2.b requires that when the reactor is in Mode 5 (cold shutdown) with reactor coolant system loops not filled, "each valve or mechanical joint used to isolate unborated water sources shall be secured in the closed position." Contrary to the above, every Unit 2 outage from 2003 through 2010, when the recycle holdup tanks were used to fill the reactor coolant system, boron recovery system valves BR-204 and BR-205 were closed but not secured (locked). The inspectors used Manual Chapter 0609, Appendix G, and determined that the finding was of very low safety significance because there was no reactivity change that warranted a quantitative risk analysis. The licensee entered this violation into the corrective action program as Condition Report 11-7747.

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

R. Aguilera, Manager, Health Physics  
M. Berg, Manager, Design Engineering  
C. Bowman, General Manager, Engineering and Regulatory Affairs  
D. Bryant, Manager, Chemistry  
J. Calvert, Manager, Training  
K. Coates, General Manager, Outages and Projects  
R. Dunn Jr., Manager, Fuels and Analysis  
R. Engen, Site Engineering Director  
J. Enoch, Manager, Emergency Preparedness  
T. Frawley, Manager, Operations  
J. Hartley, Manager, Mechanical Maintenance  
G. Hildebrandt, Manager, EP/Plant Protection  
G. Janak, Manager, Unit 1 Operations  
B. Jenewein, Manager, Systems Engineering  
J. Lovejoy, Manager, I&C Maintenance  
G. MacDonald, Manager, Organizational Effectiveness  
R. McNiel, Manager, Maintenance Engineering  
J. Mertink, Plant Training and Knowledge Transfer  
J. Milliff, Manager, Unit 2 Operations  
M. Murray, Manager, Regulatory Affairs  
J. Paul, Engineer, Licensing Consultant  
L. Peter, Plant General Manager  
J. Pierce, Manager, Operations Training  
G. Powell, Vice President, Generation, Units 1 and 2  
D. Rencurrel, Chief Nuclear Officer  
K. Richards, President and Chief Executive Officer  
M. Ruvalcaba, Manager, Testing and Programs  
R. Rysner, Quality Department Staff  
R. Savage, Engineer, Licensing Staff Specialist  
M. Schaefer, Manager, Maintenance  
S. Sovizral, Manager, Security Operations  
D. Swett, Supervisor, Radiation Protection  
K. Taplett, Senior Engineer, Licensing Staff  
D. Towler, Manager, Quality  
D. Tran, Quality Department Staff  
J. Wells, Manager, Work Control/Outage  
J. Wirths, Chemistry Staff  
D. Zink, Supervising Engineering Specialist



## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened and Closed

05000498/2012003-01	NCV	Failure to Follow ASME Code Requirements (Section 1R15.1)
05000498/2012003-02 05000499/2012003-02	NCV	Failure to Promptly Identify Conditions Adverse to Quality (Section 1R15.2)
05000499/2012003-03	NCV	Failure to Report a Condition Prohibited by Technical Specifications (Section 4OA3)
05000498/2011001-01	LER	Technical Specification Requirement Not Met Regarding Unborated Water Sources Revision 1 (Section 4OA3)

## LIST OF DOCUMENTS REVIEWED

### **Section 1R01: Adverse Weather Protection**

#### CONDITION REPORTS

09-9556	12-5166	12-23163	12-23226
11-2638	12-14980		

#### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
LOR-GL-0001	LOR Training Program Guidelines	18
OPGP03-XS-0001	Switchyard Management	1
OPGP03-ZA-0104	Switchyard Access and Control of Vehicles Near Electrical Power Components	9
OPOP01-ZO-0002	345 kV Switchyard Switching and Clearance Guidelines	6
OPOP03-ZG-0002	STP Coordinator Operations	4
OPOP03-ZO-0045	Centerpoint Energy Real Time Operations Emergency Operations Plan	1
OPOP04-AE-0004	Loss of Power to One or More 4.16 KV ESF Bus	12
OPOP04-AE-0005	Offsite Power System Degraded	7

## **Section 1R04: Equipment Alignment**

### CONDITION REPORTS

12-9695                      12-23388

### DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
5R219F05028 #2	Piping and Instrumentation Diagram Spent Fuel Pool Cooling and Cleanup System	30
5R219F05029 #2	Piping and Instrumentation Diagram Spent Fuel Pool Cooling and Cleanup System	21
5Q159F22542 #2	Piping and Instrumentation Diagram Standby Diesel Lube Oil	19
5Q159F22540 #2	Piping and Instrumentation Diagram Standby Diesel Jacket Water	22
5Q159F00045 #2	Piping and Instrumentation Diagram Standby Diesel Fuel Oil	8
5Q159F22546 #2	Piping and Instrumentation Diagram Standby Diesel Starting Air	15

### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0POP02-FC-0001	Spent Fuel Pool Cooling and Cleanup System	63
0POP04-FC-0001	Loss of Spent Fuel Pool Level or Cooling	27
0POP02-DG-0001	Emergency Diesel Generator 11(21)	52
0PSP03-DG-0001	Standby Diesel Generator 11(21) Operability Test	45

## **Section 1R05: Fire Protection**

### CONDITION REPORTS

12-18509                      12-12294                      12-12465

## FIRE PREPLANS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0EAB33-FP-0018	Fire Preplan Electrical Auxiliary Building Cable Area Train B	3
0EAB66-FP-0025	Fire Preplan Electrical Auxiliary Building Cabling Area Train A	2

## PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0PTP03-FP-0126	Fire Door Visual Examination	17
0PTP03-FP-0127	Fire Door Hold Open and Release Mechanisms Functionality Check	17, 18

## **Section 1R06: Flood Protection Measures**

### CALCULATIONS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MC5365	Fuel Handling Building Flooding Analysis	8
NC9708	Facility Response Analysis for FHB Flooding and Spray Effects	3

### CONDITION REPORTS

11-11292	12-18726	12-19245	12-21160
12-16924			

### DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
5R219F05028#1	Piping and Instrumentation Diagram Spent Fuel Pool Cooling and Cleanup System	28
5R219F05028#2	Piping and Instrumentation Diagram Spent Fuel Pool Cooling and Cleanup System	30
5R219F05029#1	Piping and Instrumentation Diagram Spent Fuel Pool Cooling and Cleanup System	19
5R219F05029#2	Piping and Instrumentation Diagram Spent Fuel Pool Cooling and Cleanup System	21

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
7F099A80471	Architectural Penetration Seals Fuel Handling Building Floor Plan El. (-)29'-0", (-) 2'-0", and 4'-0"	4
7F099A80472	Architectural Penetration Seals Fuel Handling Building Floor Plan El. 21'-11" and 30'-0"	5
9F139A1048	Architectural Fuel Handling Building Plan @ 30'-0"	3
3E100E02151	Electrical Class 1E Manhole Schedule and Details	16
3P110C5032	Concrete Class 1E Underground Electrical Raceway System Manhole Plan	14
3P110C5034	Concrete Class 1E Underground Electrical Raceway System General Plan	15
3P110C5035	Concrete Class 1E Underground Electrical Raceway System Manhole Plan	15
3E100E02153	Electrical Class 1E Manhole and Duct Bank Sections	14
3E100E02154	Electrical Class 1E Manhole and Duct Bank Sections	19
3E100E02155	Electrical Class 1E Manhole and Duct Bank Sections	11
3E100E02156	Electrical Class 1E Manhole and Duct Bank Sections	18

#### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0POP02-FC-0001	Spent Fuel Pool Cooling and Cleanup System	64

#### WORK AUTHORIZATION NUMBERS

367583                      390282                      411949

#### **Section 1R07: Heat Sink Performance**

#### CALCULATIONS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MC 6084	Component Cooling Water Heat Exchanger Tube Plugging	0
MC 6219	Generic Letter 89-13 (Essential Cooling Water Thermal Performance Test)	2
MC 6255	Standby Diesel Generator Intercooler Performance	0

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MC 6476	Jacket Water and Lube Oil Cooler Performance	0
MC 6482	Essential Chiller Water/EAB HVAC Design Basis Loads	3
MC 6498	Essential Cooling Pond Thermal Performance Analysis	0
5R169MB01021	Residual Heat Removal System - Design Basis Document	6
5R209MB1018	Component Cooling Water - Design Basis Document	3
5Q159MB1023	Standby Diesel Generator System	3
5V369VB00120	Chilled Water System - Design Basis Document	7

#### CONDITION REPORTS

09-10688	09-20886	11-25827	12-21568
09-17531	10-9232	11-31266	12-21573
09-19824	10-16495	12-9761	12-21625
09-20336	11-2695	12-21567	12-21934
09-20681	11-3194		

#### HEAT EXCHANGER INSPECTION RESULTS PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
3Q152MHX0234	ESF Diesel Generator 22, Jacket Water Cooler Tube Scale Inspection	April 25, 2006
3Q152MDG0234	ESF Diesel Generator 22, Intercooler Inspection	April 25, 2006
100-02812-001	SDG 22 Lube Oil Cooler Tube Scale Inspection	April 29, 2003
100-02813-002	SDG 22 Jacket Water Cooler Tube Scale Inspection	April 29, 2003

#### MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
	Stress Analysis for Component Cooling Water Heat Exchanger	0
	Component Cooling Water System Water Hammer Effect on Residual Heat Exchanger System Components	April 9, 1987
5Z010ZS1101	STP Precautions Limitations and Setpoints	5
ST-HL-AE-2400	Final Report Concerning Component Cooling Water Heat Exchanger	November 5, 1987

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
4018-01001-5C	As-Built Information After Rodding and Plugging Component Cooling Water Heat Exchanger 1A	0
DCP 98-622-15	Design Change Package – Standby Diesel Heat Exchanger Tube Plugging	5
DCP 04-14989-2	Tube Plugging for Essential Chillers	April 4, 2005
WAN-92034253	Essential Cooler 22B Tube Cleaning and EDDY Current Testing	1
2 RH	Residual Heat Removal System Health Report	April 1, 2012
2 EW	Essential Cooling Water System Health Report	April 1, 2012
2 HC	Containment HVAC System Health Report	April 1, 2012
2 HM	Mechanical Auxiliary Building HVAC System Health Report	April 1, 2012
2 CC	Component Cooling Water System Health Report	April 1, 2012
2 CH	Essential Chilled Water System Health Report	April 1, 2012
2DG	Standby Diesel Generator System Health Report	April 1, 2012
AD-0020	Reactor Shutdown Chemistry Guidelines	5
Chapter 11	Primary Chemistry Strategic Water Chemistry Plan	8
Chapter 13	Closed Cooling water Chemistry Strategic Plan	4
Chapter 14	Service (open Loop) Cooling Water Chemistry Strategic Plan	1

#### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0PCP01-ZA-0038	Plant Chemistry Specification	46
0PCP03-ZC-0005	Chemistry Addition to the Reactor Coolant System	14
0PCP03-ZC-0006	Chemical Addition to Plant Systems	21
0PCP03-ZC-0013	Chemical Addition to CW/OC and EW	12
0PGP03-ZE-0080	Essential Cooling Water System Reliability Program	0
0PMP04-ZG-0011	Heat Exchanger Cleaning (general Guidelines and Instructions)	7

## VENDOR DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
VTD-S445-0001	Installation Operation and maintenance Instructions for Cooling Water Heat Exchangers	0
VTD-W351-0005	Instruction manual for Westinghouse NSSS Heat Exchangers	1
DCP-95-5765-103	Revise Specification 3Q159MS0034 – for SDG 22 Only	5
	SDG Lube Oil Cooler Manufactures Design and Performance Data Sheet	March 7, 1977
	SDG Jacket Water Cooler Manufactures Design and Performance Data Sheet	March 7, 1977
	SDG Intercooler Manufactures Design and Performance Data Sheet	June 28,1977
DCP-95-5765-8	Revise Specification 3Q159MS0034 – for SDG 11 Only	5
	Essential Chiller Manufactures Data Sheet	4

## WORK ORDERS

177923	272198	359443	401571
203951	277245	386797	402180
272197	353604		

### **Section 1R11: Licensed Operator Requalification Program and Licensed Operator Performance**

## PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OPOP02-RC-0003	Filling and Venting the Reactor Coolant System	36
OPOP03-ZG-0001	Plant Heatup	57
OPOP03-ZG-0004	Reactor Startup	38

### **Section 1R12: Maintenance Effectiveness**

## CONDITION REPORTS

99-2894	11-14081	12-2354	12-13302
11-13651	11-18562		

## MISCELLANEOUS

<u>TITLE</u>	<u>REVISION/DATE</u>
ESF Load Sequencer Life Cycle Management Plan	August 18, 2008
Integrated GQA/PGR Working Group Meeting	May 16, 2012
Maintenance Rule System Scoping Basis Report	March 8, 2012
Quarterly System Health Report ESF Actuation (SF)	Second Quarter 2010 through First Quarter 2012

## **Section 1R13: Maintenance Risk Assessment and Emergent Work Controls**

### CONDITION REPORTS

11-28753	12-12399	12-23404	12-23553
11-28904	12-21160		

## MISCELLANEOUS

<u>TITLE</u>	<u>REVISION/DATE</u>
STP RICTCAL and RASCAL Calculations	April 29-May 5, 2012
Work Activity Risk Plan of Action #2369	0, 1

### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0PGP01-ZA-0304	Probabilistic Risk Assessment Risk Ranking	9
0PGP02-ZA-0003	Comprehensive Risk Management Program	13
0PGP03-ZA-0091	Configuration Risk Management Program	12
0PGP03-ZA-0101	Shutdown Risk Assessment	23
0PGP03-ZG-RMTS	Risk-Managed Technical Specifications Program	1
0PGP03-ZO-0022	Post-Trip Review	10
0PMP07-AM-0011	QDPS APC-A1 Removal From Service	14
0PMP07-AM-0022	QDPS APC-B2 Removal From Service	10
0POP01-ZO-0006	Risk Management Actions (RMAs)	18
0POP02-RC-0003	Filling and Venting the Reactor Coolant System	36
0POP02-RH-0001	Residual Heat Removal System Operation	56



<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0POP03-ZG-0001	Plant Heatup	57
0POP03-ZG-0003	Secondary Plant Heatup	29
0POP03-ZG-0004	Reactor Startup	38
0POP03-ZG-0005	Plant Startup to 100%	74
0POP04-RP-0004	Failure of RCS Loop RTD Protection Channel	16
0POP07-RS-0001	Control Rod Exercise	9
0PSP03-XC-0002	Initial Containment Inspection to Establish Integrity	50
0PSP03-XC-0002A	Containment Entry and Partial Inspection (Containment Integrity Established)	41
0PSP03-EW-0017	Essential Cooling Water System Train A Testing	33

#### WORK AUTHORIZATION NUMBERS

377238	400348	417958	450174
392818			

### **Section 1R15: Operability Evaluations and Functionality Assessments**

#### CONDITION REPORTS

97-5407	06-946	11-23915	12-21808
97-14680	06-10954	11-25873	12-21922
97-16031	06-15346	12-15564	12-21925
98-9447	07-6636	12-16203	12-21943
98-20193	09-3661	12-16493	12-23218
99-5317	11-11096	12-20019	12-23245
01-10038	11-11999	12-20026	12-23391
03-4528	11-17459	12-21063	

#### DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
35199-1, -2	Drag <sup>®</sup> Valve, 8 x 10, Offset Globe, 900 ANSI Steam Generator Relief	March 23, 2011
922400073	Body Assembly 8" x 10" Globe Offset 900 ANSI CL	November 16, 1987
77-B110015-17	Flexcell	0
77-D110015	Refueling Water Storage Tank Vessel Data, Sheet 1	1
77-D110015	Refueling Water Storage Tank Orientation, Sheet 2	4

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
77-D110015	Refueling Water Storage Tank Bottom Layout, Sheet 3	0
77-D110015	Refueling Water Storage Tank Shell Stretchout Sheet 6	1

#### MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
N-513-2	Cases of ASME Boiler and Pressure Vessel Code - Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping Section XI, Division 1	February 20, 2004
UTCAL -2012-027	Safety Injection Valve SI0010A / Studs (16 each)	April 16, 2012
UT-2012-049	Safety Injection Valve SI0010A / Studs (16 each)	April 17, 2012
Case N-705	Cases of ASME Boiler and Pressure Vessel Code: Case N-705 Evaluation Criteria for Temporary Acceptance of Degradation in Moderate Energy Class 2 or 3 Vessels and Tanks, Section XI, Division 1	October 12, 2006

#### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
UTI-025	Ultrasonic Technical Instruction Manual Ultrasonic Examination of Threaded Bolting	2
OPOP02-MS-0001	Main Steam System	46
OPSP03-MS-0001	Main Steam System Valve Operability Test	38-40
OPSP15-SI-0001	Safety Injection System Functional Pressure Test	12
OPOP01-ZQ-0022	Plant Operations Shift Routines	65

#### **Section 1R18: Plant Modifications**

#### CONDITION REPORTS

12-21559	12-23125
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#### DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
4056-01027ZU	Strainer Assembly	February 5, 2009

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
8056-01027ZU	Strainer Assembly	February 5, 2009
3R289NS0036	Essential Cooling Water System Self Cleaning Strainer	2
5R289F05038#2	Piping and Instrumentation Diagram Essential Cooling Water System	16

#### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0PDP01-ZE-0001	Design Verification Process	5
0PGP03-ZA-0014	Foreign Materials Exclusion Program	16
0PGP04-ZE-0309	Design Change Package	28
0PGP05-ZA-0002	10CFR50.59 Evaluations	15

#### WORK AUTHORIZATION NUMBERS

443862

#### **Section 1R19: Post-maintenance Testing**

#### CONDITION REPORTS

11-23281	12-21519	12-21573	12-21782
12-15398	12-21559	12-21580	12-21882
12-15541	12-21560	12-21625	12-21908
12-19696	12-21562	12-21732	12-22116
12-20212	12-21568	12-21780	12-22243

#### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0PMP05-CH-0003	York Chiller Inspection & Maintenance 300 Tons	6
0PMP05-NZ-0030	General Electric Type AKR Breaker Test	8
0PMP05-NZ-0035	Calibration of AKR Breaker Trip Devices	5
0PMP05-ZE-0047	Calibration of Timing Relays	12
0PMP05-ZE-0108	Type AR Auxiliary Relay – Maintenance	3
0PMP08-ZI-0009	Pressure or Differential Pressure Switch Calibration	11
0PMP08-ZI-0203	Pressure or Differential Pressure Indicator Calibration	12

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0PSP03-EW-0017	Essential Cooling Water System Train A Testing	33

WORK AUTHORIZATION NUMBERS

372285	400348	417958	443857
392818	404956	430494	442143
397143	411113	433066	442192

**Section 1R20: Refueling and Other Outage Activities**

CONDITION REPORTS

11-28753	11-28904	11-29195	12-12399
11-28754			

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0PGP03-ZA-0101	Shutdown Risk Assessment	23
0PGP03-ZO-0022	Post-Trip Review	10
0POP02-RC-0003	Filling and Venting the Reactor Coolant System	36
0POP02-RH-0001	Residual Heat Removal System Operation	56
0POP03-ZG-0001	Plant Heatup	57
0POP03-ZG-0003	Secondary Plant Heatup	29
0POP03-ZG-0004	Reactor Startup	38
0POP03-ZG-0005	Plant Startup to 100%	74
0POP03-ZG-0007	Plant Cooldown	64
0POP05-EO-E001	Reactor Trip Response	25
0POP07-RS-0001	Control Rod Exercise	9
0PSP03-XC-0002	Initial Containment Inspection to Establish Integrity	50
0PSP03-XC-0002A	Containment Entry and Partial Inspection (Containment Integrity Established)	41
0POP02-DG-0002	Emergency Diesel Generator 12(22)	58
0PSP03-DG-0002	Standby Diesel 12(22) Operability Test	46

## Section 1R22: Surveillance Testing

### CONDITION REPORTS

12-9703	12-17138	12-17369	12-22543
12-13560	12-17232	12-18545	12-22787
12-13561	12-17340	12-18976	12-23035
12-13673	12-17342	12-21391	12-23404
12-16895	12-17368	12-22490	12-23553

### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OPGP03-ZO-0046	RCS Leakage Monitoring	8
OPGP07-ZA-0014	Software Quality Assurance Program	8
OPMP07-AM-0022	QDPS APC-B2 Removal From Service	10
OPOP04-RC-0003	Excessive RCS Leakage	16
OPOP04-RP-0004	Failure of RCS Loop RTD Protection Channel	16
OPOP04-RS-0001	Control Rod Malfunction	33
OPOP07-RS-0001	Control Rod Exercise	9
OPSP02-RC-0410	Delta T and T Average ACOT	49
OPSP03-CH-0010	Essential Chilled Water Pump 11C(21C) Preservice Testing Pump Curve Measurement	0
OPSP03-RC-0006	Reactor Coolant Inventory	24
OPSP03-RC-0006A	Alternate Reactor Coolant Inventory	0
OPSP03-RI-0001	Digital Rod Position Indication Operability Test	16
OPSP03-RS-0001	Monthly Control Rod Operability	31
OPSP03-RS-0004	Control Rod Operability Test (Six and Ten Steps)	6
OPSP03-SP-0010A	Train A ESF Load Sequencer Manual Local Test	24
1TOP02-RS-0003	Rod Exercise (M14, P4, F12, F2, N11, N5, K2, L13, E3, L3, K14)	6

### WORK AUTHORIZATION NUMBERS

416148	422992	442759	450174
421144	434346	449161	

## Section 1EP1: Exercise Evaluation

### CONDITION REPORTS

12-21330	12-21524	12-22275	12-22282
12-21349	12-21696	12-22281	

### MISCELLANEOUS

<u>TITLE</u>	<u>DATE</u>
Evaluation Report for the Red Team Drill, January 27, 2010	May 6, 2010
Evaluation Report for the Blue Team Drill, May 26, 2010	October 10, 2010
Evaluation Report for the White Team Drill, July 20, 2010	August 10, 2010
Evaluation Report for the White Team Drill, September 1, 2010	October 20, 2010
Evaluation Report for the White Team Drill, October 27, 2010	November 22, 2010
Evaluation Report for the Red Team Drill, March 2, 2011	September 14, 2011
Evaluation Report for the White Team Drill, June 22, 2011	September 15, 2011
Evaluation Report for the Blue Team Drill, August 10, 2011	September 14, 2011
Evaluation Report for the Blue Team Drill, February 8, 2012	

### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0ERP01-ZV-EF01	EOF Director	13
0ERP01-ZV-EF03	Radiological Director	11
0ERP01-ZV-EF15	Dose Assessment Specialist	4
0ERP01-ZV-IN01	Emergency Classification	8
0ERP01-ZV-IN02	Notification to Offsite Agencies	29
0ERP01-ZV-IN03	Emergency Response Organization Notification	15
0ERP01-ZV-IN04	Assembly and Accountability	13
0ERP01-ZV-IN06	Radiological Exposure Guidelines	6
0ERP01-ZV-IN07	Offsite Protective Action Recommendations	13
0ERP01-ZV-OS01	OSC Coordinator	7
0ERP01-ZV-OS06	Emergency Teams	10
0ERP01-ZV-SH04	Acting OSC Coordinator	7

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0ERP01-ZV-TS01	TSC Manager	14
0ERP01-ZV-TT01	Offsite Dose Calculations	20
0PGP03-ZX-0002	Condition Reporting Process	42
0PGP05-ZV-0016	Radiological Coordinator	9
0PGP05-ZV-0017	Severe Accident Management	1

#### **Section 40A1: Performance Indicator Verification**

##### MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
PI-0002	NRC & INPO Performance Indicator: Initiating Events Cornerstone (by Unit) and Barrier Integrity Cornerstone (by Unit) Desktop Guidelines South Texas Project Emergency Plan	4, 5

##### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0PGP05-ZV-0006	Emergency Notification and Response System	3
0PGP05-ZV-0007	Prompt Notification System	9
0PGP05-ZV-0013	Performance Indicator Tracking Guide	6
0PGP05-ZV-0016	Prompt Notification System Implementing Procedure	8
	Updated Prompt Notification System Design Report, Chapter 3	1

#### **Section 40A2: Problem Identification and Resolution**

##### CONDITION REPORTS

12-2860	12-21347	12-21685	12-23271
12-5448	12-21420	12-22543	

##### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
0PGP03-ZX-0002	Condition Reporting Process	42, 43

**Section 40A3: Followup of Events and Notices of Enforcement Discretion**

CONDITION REPORTS

11-7747                      12-10874

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
LDG-06	Preparation of LERs	3

**Section 40A7: Licensee-Identified Violations**

CONDITION REPORT

11-7747