



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION IV  
1600 E. LAMAR BLVD.  
ARLINGTON, TX 76011-4511

August 11, 2016

Mr. Dennis Koehl  
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 05000498/2016002 AND  
05000499/2016002**

Dear Mr. Koehl:

On June 30, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your South Texas Project Electric Generating Station, Units 1 and 2, facility. On July 14, 2016, the NRC inspectors discussed the results of this inspection with J. Connolly, Site Vice President, and other members of your staff. Inspectors documented the results of this inspection in the enclosed inspection report.

NRC inspectors documented two findings of very low safety significance (Green) in this report. Both of these findings involved violations of NRC requirements. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2.a of the NRC Enforcement Policy.

If you contest the violations or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, U.S. 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 or a finding not associated with a regulatory requirement 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.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's

D. Koehl

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Agencywide Documents 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 D. Proulx for/***

Nicholas H. Taylor, Branch Chief  
Project Branch B  
Division of Reactor Projects

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

Enclosure:  
Inspection Report 05000498/2016002  
and 05000499/2016002  
w/ Attachment: Supplemental Information

D. Koehl

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Letter to Dennis Koehl from Nicholas Taylor dated August 11, 2016

SUBJECT: SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION – NRC  
INTEGRATED INSPECTION REPORT 05000498/2016002 AND  
05000499/2016002

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 05000498, 05000499  
License: NPF-76, NPF-80  
Report: 05000498/2016002 and 05000499/2016002  
Licensee: STP Nuclear Operating Company  
Facility: South Texas Project Electric Generating Station, Units 1 and 2  
Location: FM 521 - 8 miles west of Wadsworth  
Wadsworth, Texas 77483  
Dates: April 1 through June 30, 2016  
Inspectors: A. Sanchez, Senior Resident Inspector  
N. Hernandez, Resident Inspector  
Approved By: Nicholas H. Taylor  
Chief, Project Branch B  
Division of Reactor Projects

Enclosure

## SUMMARY

IR 05000498/2016002, 05000499/2016002; 04/01/2016 – 06/30/2016; South Texas Project Electric Generating Station, Units 1 and 2; Problem Identification and Resolution

The inspection activities described in this report were performed between April 1 and June 30, 2016, by the resident inspectors at the South Texas Project. Two findings of very low safety significance (Green) are documented in this report. Both of these findings involved violations of NRC requirements. The significance of inspection findings is indicated by their color (Green, White, Yellow, or Red), which is determined using Inspection Manual Chapter 0609, "Significance Determination Process." Their cross-cutting aspects are determined using Inspection Manual Chapter 0310, "Aspects within the Cross-Cutting Areas." Violations of NRC requirements are dispositioned in accordance with the NRC Enforcement Policy. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

### Cornerstone: Initiating Events

- Green. The inspectors documented a self-revealed, non-cited violation of Technical Specification 6.8.1.a, "Procedures," for failure to implement procedures for power operation as described in Regulatory Guide 1.33, Revision 2, Appendix A, Section 2.g, dated February 1978. Specifically, the procedure the licensee used for low power operation failed to include adequate instructions for the control of steam generator water levels, which resulted in a plant cooldown, a letdown isolation, a pressurizer power-operated relief valve lift, and unplanned entry into two technical specification action statements. The licensee entered this issue into the corrective action program as Condition Report 2015-26657.

The inspectors determined that the failure to control steam generator water levels due to an inadequate procedure during lower power operations was a performance deficiency. The performance deficiency 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. Specifically, the failure to control steam generator water levels resulted in a plant cooldown, a reactor coolant system letdown isolation, a pressurizer power-operated relief valve to lift, and unplanned entry into two technical specification action statements. The inspectors screened this finding using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated June 19, 2012. The finding screened as Green per Section B. of Exhibit 1, "Initiating Events Screening Questions," because the finding did not result in exceeding the reactor coolant system leak rate for a small loss-of-coolant accident, did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function, and 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. Inspectors determined the finding had a cross-cutting aspect of training in the human performance area because the organization failed to provide training and ensure knowledge was transferred to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. Specifically, because the licensee provided start-up training and simulator based training, skill of the craft vice detailed procedures was thought to be adequate for controlling steam generator water levels at low power [H.9]. (Section 40A2.3)

## Cornerstone: Mitigating Systems

- Green. 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 OPGP03-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 OPGP03-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 loss 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]. (Section 4OA2.2)

## PLANT STATUS

Unit 1 began the inspection period at 100 percent power. On April 14, 2016, an instrument air valve was inadvertently closed, which resulted in the high pressure feedwater heater normal level drains failing full shut. Reactor power was lowered to approximately 96 percent power. Following restoration of instrument air to the level controllers, reactor power was restored to 100 percent. On May 1, 2016, Unit 1 automatically tripped following a turbine trip due to degraded (torn) boot on the B phase of the main generator. Unit 1 entered Forced Outage 1F1602 for repairs to main generator boot and returned to 100 percent power on May 7, 2016. Unit 1 remained at 100 percent power for the remainder of the inspection period.

Unit 2 began the inspection period at 100 percent power and remained there for the remainder of the inspection period.

## REPORT DETAILS

### 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 Systems

##### a. Inspection Scope

On June 29, 2016, the inspectors completed an inspection of the station's off-site and alternate-ac power systems. The inspectors inspected the material condition of these systems, including transformers and other switchyard equipment to verify that plant features and procedures were appropriate for operation and continued availability of off-site and alternate-ac power systems. The inspectors reviewed outstanding work orders and open condition reports for these systems. The inspectors walked down the switchyard to observe the material condition of equipment providing off-site power sources.

The inspectors verified that the licensee's procedures included appropriate measures to monitor and maintain availability and reliability of the off-site and alternate-ac power systems.

These activities constituted one sample of summer readiness of off-site and alternate-ac power systems, as defined in Inspection Procedure 71111.01.

##### b. Findings

No findings were identified.



## **1R04 Equipment Alignment (71111.04)**

### Partial Walkdown

#### a. Inspection Scope

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

- April 12, 2016, Unit 1, train B component cooling water while train C was out of service for planned maintenance
- April 14, 2016, Unit 1, train B essential cooling water while train C was out of service for planned maintenance
- April 27, 2016, Unit 1, train B emergency diesel generator while train A was out of service for planned maintenance
- May 16, 2016, Unit 2, train D auxiliary feedwater while train C auxiliary feedwater system was out of service for planned maintenance
- May 23, 2016, Unit 1, train C electrical building heating, ventilation, and air conditioning (HVAC) system while train A electrical building HVAC system was out of service for planned maintenance

The inspectors reviewed the licensee's procedures and system design information to determine the correct lineup for the systems. They visually verified that critical portions of the systems were correctly aligned for the existing plant configuration.

These activities constituted five partial system walk-down samples, as defined in Inspection Procedure 71111.04.

#### b. Findings

No findings were identified.

## **1R05 Fire Protection (71111.05)**

### Quarterly Inspection

#### a. Inspection Scope

The inspectors evaluated the licensee's fire protection program for operational status and material condition. The inspectors focused their inspection on three plant areas important to safety:

- April 13, 2016, Unit 1, electrical auxiliary building, Fire Area 02, Fire Zones Z006 and Z010
- April 28, 2016, Unit 2, isolation valve cubicles, Fire Area 48, Fire Zone Z403, Fire Area 46, Fire Zone Z402, Fire Area 50, Fire Zone Z401

- May 10, 2016, Unit 1 and Unit 2, fire pump house, Fire Areas 59, 60, and 61, Fire Zone Z800

For each area, the inspectors evaluated the fire plan against defined hazards and defense-in-depth features in the licensee's fire protection program. The inspectors evaluated control of transient combustibles and ignition sources, fire detection and suppression systems, manual firefighting equipment and capability, passive fire protection features, and compensatory measures for degraded conditions.

These activities constituted three quarterly inspection samples, as defined in Inspection Procedure 71111.05.

b. Findings

No findings were identified.

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

.1 Review of Licensed Operator Requalification

a. Inspection Scope

On May 17, 2016, the inspectors observed a simulator training for an operating crew. The inspectors assessed the performance of the operators and the evaluators' critique of their performance.

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

b. Findings

No findings were identified.

.2 Review of Licensed Operator Performance

a. Inspection Scope

The inspectors observed the performance of on-shift licensed operators in the Unit 1 and Unit 2 main control room. At the time of the observations, the plant was in a period of heightened activity and risk. The inspectors observed the operators' performance of the following activities:

- May 1, 2016, Unit 1, operators' response to an automatic reactor trip due to a main generator lockout
- May 13, 2016, Unit 2, operator response to an electrohydraulic fluid leak in the secondary side control system

In addition, the inspectors assessed the operators' adherence to plant procedures, including conduct of operations procedure and other operations department policies.

These activities constituted 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 reviewed one instance of degraded performance or condition of safety-related structures, systems, and components (SSCs):

- June 28, 2016, Unit 2, pressurizer heater group 2A spurious breaker closure and failure to open

The inspectors reviewed the extent of condition of possible common cause SSC failures and evaluated the adequacy of the licensee's corrective actions. The inspectors reviewed the licensee's work practices to evaluate whether these may have played a role in the degradation of the SSCs. The inspectors assessed the licensee's characterization of the degradation in accordance with 10 CFR 50.65 (the Maintenance Rule), and verified that the licensee was appropriately tracking degraded performance and conditions in accordance with the Maintenance Rule.

These activities constituted completion of one maintenance effectiveness sample, as defined in Inspection Procedure 71111.12.

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors reviewed three risk assessments performed by the licensee prior to changes in plant configuration and the risk management actions taken by the licensee in response to elevated risk:

- Week of May 23, 2016, Unit 2, planned maintenance risk assessment associated with condensate polisher bypass freeze seal for modification to mechanical auxiliary building chilled water system for independent spent fuel storage installation
- Week of June 13, 2016, Unit 2, unplanned maintenance risk assessment associated with the train B emergency diesel generator inoperable due to a failed fiber optic cable in the air start system

- Week of June 20, 2016, Unit 2, planned maintenance on Channel IV 125Vdc battery bank E2D11, and train D 10KVA inverter that required entry into the Configuration Risk Management Program.

The inspectors verified that these risk assessments were performed timely and in accordance with the requirements of 10 CFR 50.65 (the Maintenance Rule) and plant procedures. The inspectors reviewed the accuracy and completeness of the licensee's risk assessments and verified that the licensee implemented appropriate risk management actions based on the result of the assessments.

Additionally, during the week of June 5, 2016, the inspectors observed portions of an emergent work activity associated with Unit 1, train A control room envelope HVAC fan 11A to replace a failed motor stator.

The inspectors verified that the licensee appropriately developed and followed a work plan for these activities. The inspectors verified that the licensee took precautions to minimize the impact of the work activities on unaffected SSCs.

The inspectors also reviewed the licensee's actions for implementing the Configuration Risk Management Program for determining and implementing the risk-informed allowed outage time for the battery E2D11, and train D 10KVA inverter planned maintenance that took place the week of June 20, 2016.

These activities constituted completion of four maintenance risk assessments and emergent work control inspection samples, as defined in Inspection Procedure 71111.13.

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors reviewed three operability determinations that the licensee performed for degraded or nonconforming SSCs:

- May 2, 2016, operability determination of auxiliary feedwater pump 24 following identification of a leak from a threaded connection between auxiliary feedwater valve AF-0191 and the pump casing
- May 4, 2016, functionality determination of Unit 1 and Unit 2 main turbines following a ground on the Unit 1 main turbine "B" phase due to a degraded boot
- May 24, 2016, operability determination of Unit 1, train C electrical auxiliary building HVAC following an inspector identified issue with temporary scaffold in contact with the HVAC ducting and seismic supports

The inspectors reviewed the timeliness and technical adequacy of the licensee's evaluations. Where the licensee determined the degraded SSC to be operable, the inspectors verified that the licensee's compensatory measures were appropriate to

provide reasonable assurance of operability. The inspectors verified that the licensee had considered the effect of other degraded conditions on the operability of the degraded SSC.

These activities constituted completion of three operability and functionality review samples, as defined in Inspection Procedure 71111.15.

b. Findings

No findings were identified.

**1R19 Post-Maintenance Testing (71111.19)**

a. Inspection Scope

The inspectors reviewed three post-maintenance testing activities that affected risk-significant SSCs:

- April 17, 2016, Unit 1, train C essential cooling water system following a planned modification that replaced a throttle valve and installation of a flow orifice
- May 26, 2016, Unit 2, technical support center diesel generator following lube oil pressure indicating transmitter and output breaker replacement
- June 8, 2016, Unit 1, emergent maintenance on train A control room envelope HVAC fan 11A to replace the motor stator

The inspectors reviewed licensing- and design-basis documents for the SSCs and the maintenance and post-maintenance test procedures. The inspectors observed the performance of the post-maintenance tests to verify that the licensee performed the tests in accordance with approved procedures, satisfied the established acceptance criteria, and restored the operability of the affected SSCs.

These activities constituted completion of three post-maintenance testing inspection samples, as defined in Inspection Procedure 71111.19.

b. Findings

No findings were identified.

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

a. Inspection Scope

During the station's 1F16-02 outage that concluded on May 1, 2016 through May 5, 2016, the inspectors evaluated the licensee's outage activities. The inspectors verified that the licensee considered risk in developing and implementing the outage plan, appropriately managed personnel fatigue, and developed mitigation strategies for losses of key safety functions. This verification included the following:

- Monitoring of shut-down and cool-down activities

- Verification that the licensee maintained defense-in-depth during outage activities
- Monitoring of corrective maintenance
- Monitoring of heat-up and start-up activities

These activities constituted completion of one outage activities sample, as defined in Inspection Procedure 71111.20.

b. Findings

No findings were identified.

**Cornerstone: Emergency Preparedness**

**1EP6 Drill Evaluation (71114.06)**

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors observed an emergency preparedness drill on April 20, 2016, to verify the adequacy and capability of the licensee's assessment of drill performance. The inspectors reviewed the drill scenario, observed the drill from the simulator; technical support center; the emergency operations facility, and attended the post-drill critique. The inspectors verified that the licensee's emergency classifications, off-site notifications, and protective action recommendations were appropriate and timely. The inspectors verified that any emergency preparedness weaknesses were appropriately identified by the licensee in the post-drill critique and entered into the corrective action program for resolution.

The inspectors observed an emergency preparedness drill on June 1, 2016, to verify the adequacy and capability of the licensee's assessment of drill performance. The inspectors reviewed the drill scenario, observed the drill from the simulator; technical support center; the emergency operations facility, and attended the post-drill critique. The inspectors verified that the licensee's emergency classifications, off-site notifications, and protective action recommendations were appropriate and timely. The inspectors verified that any emergency preparedness weaknesses were appropriately identified by the licensee in the post-drill critique and entered into the corrective action program for resolution.

These activities constituted completion of two emergency preparedness drill observation samples, as defined in Inspection Procedure 71114.06.

b. Findings

No findings were identified.

.2 Training Evolution Observation

a. Inspection Scope

On May 17, 2016, the inspectors observed simulator-based licensed operator requalification training that included implementation of the licensee's emergency plan.

The inspectors verified that the licensee's emergency classifications, off-site notifications, and protective action recommendations were appropriate and timely. The inspectors verified that any emergency preparedness weaknesses were appropriately identified by the evaluators and entered into the corrective action program for resolution.

These activities constituted completion of one training observation sample, as defined in Inspection Procedure 71114.06.

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**

**40A1 Performance Indicator Verification (71151)**

.1 Safety System Functional Failures (MS05)

a. Inspection Scope

For the period of January 1, 2015 through March 31, 2016, the inspectors reviewed licensee event reports, maintenance rule evaluations, and other records that could indicate whether safety system functional failures had occurred. The inspectors used definitions and guidance contained in Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, and NUREG-1022, "Event Reporting Guidelines: 10 CFR 50.72 and 50.73," Revision 3, to determine the accuracy of the data reported.

These activities constituted verification of the safety system functional failures performance indicator for Units 1 and 2, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.2 Reactor Coolant System Specific Activity (BI01)

a. Inspection Scope

The inspectors reviewed the licensee's reactor coolant system (RCS) chemistry sample analyses for the period of January 1, 2015 through March 31, 2016, to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the RCS specific activity performance indicator for Units 1 and 2, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.3 Reactor Coolant System Identified Leakage (BI02)

a. Inspection Scope

The inspectors reviewed the licensee's records of RCS identified leakage for the period of January 1, 2015 through March 31, 2016, to verify the accuracy and completeness of the reported data. The inspectors observed the performance of 0PSP03-RC-0006, "Reactor Coolant Inventory," on June 30, 2016. The inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the RCS leakage performance indicator for Units 1 and 2, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

**40A2 Problem Identification and Resolution (71152)**

.1 Routine Review

a. Inspection Scope

Throughout the inspection period, the inspectors performed daily reviews of items entered into the licensee's corrective action program and periodically attended the licensee's condition report screening meetings. The inspectors verified that licensee personnel were identifying problems at an appropriate threshold and entering these problems into the corrective action program for resolution. The inspectors verified that the licensee developed and implemented corrective actions commensurate with the significance of the problems identified. The inspectors also reviewed the licensee's problem identification and resolution activities during the performance of the other inspection activities documented in this report.

b. Findings

No findings were identified.

.2 Semiannual Trend Review

a. Inspection Scope

The inspectors reviewed the licensee's corrective action program, performance indicators, system health reports, and other documentation to identify trends that might indicate the existence of a more significant safety issue. The inspectors also performed plant walk-downs. The inspectors verified that the licensee was taking corrective actions to address identified adverse trends. The following trends were identified:



- The inspectors identified an adverse trend associated with the licensee's scaffold program and procedures
- The inspectors identified a trend associated with the number of secondary side plant issues that have led to reactor trips, down powers, or near down powers

These activities constituted completion of one semiannual trend review sample, as defined in Inspection Procedure 71152.

b. Observations and Assessments

Scaffold Program

The inspectors identified a scaffold that had been installed in the plant for far greater than 90 days without a 10 CFR 50.59 review (screening) to determine if an evaluation would be required. Station Procedure OPGP03-ZM-0028, "Erection and Use of Temporary Scaffolding," Revision 20, was silent on the length of time that a scaffold can be installed in the plant. According to NEI Guideline NEI 96-07, Revision 1, "Guidelines For 10 CFR 50.59 Implementation," Section 4.1.2, "Maintenance Activities," 10 CFR 50.59 would be applied to a temporary alteration (which includes scaffolding) installed in the plant for 90 days in the same manner as a permanent change. Regulatory Guide 1.187 endorses NEI 96-07. The licensee was in the process of modifying the procedure, at the end of the inspection period.

In addition, the inspectors discovered that there was a significant backlog in excess of 220 scaffolds installed in the plant where the maintenance was completed but the scaffold was not removed. The main reason for this was that there were not enough people (resources) available to remove the legacy outage scaffolds, or to remove scaffolds stemming from normal at-power maintenance work activities. The inspectors also learned that scaffolding was routinely scheduled to be erected for maintenance, but not scheduled for removal following the completion of maintenance activities. Once the inspectors communicated the issues and concerns, licensee management promptly approved a proposal to hire more carpenters and insulators to work on removing scaffold from the plant. As of June 29, 2016, the number of scaffolds in the plant ready for removal had been reduced to approximately 140. The licensee was also evaluating scaffold installation and removal scheduling at the end of the inspection period.

Secondary Side Plant Events

The inspectors noted that there have been several secondary plant issues that have plagued the licensee within the last year and specifically focused in the first half of 2016. Three of the more significant issues have resulted in an automatic and two manual reactor trips of Unit 1. The inspectors reviewed and noted the following issues:

- 1) Unit 2 moisture separator reheater isolation that resulted in an automatic down power to 94 percent,
- 2) Unit 1 governor valve swings that resulted in a manual reactor trip,
- 3) Unit 1 main feed water regulating valve for steam generator C failure resulted in a manual reactor trip,
- 4) Unit 1 main generator ground due to an inadvertently bumped component that resulted in an automatic reactor trip,
- 5) Unit 2 electro hydraulic fluid leak that was close to requiring a manual reactor trip,
- 6) Bryozoa build up in the main cooling reservoir that affected open loop cooling system that threatened a down power,

7) Unit 2 hydrazine injection pumps tripped due to a ground (down power required after hydrazine injection is lost for two hours), and 8) Unit 2 main generator circuit breaker loss of cooling (down power is required if cooling is lost).

The licensee has placed all the issues into the corrective action program and addressed them individually. Additionally, the licensee performed a common cause evaluation on the three Unit 1 reactor trips since December 2015. The licensee decided to expand the scope of the common cause, because the three reactor trips really did not have any commonality. The licensee identified two prevailing issues: inadequate resolution of degraded equipment, and that leaders have not reinforced critical thinking behaviors. The licensee plans to implement corrective action based on these causes.

The inspectors determined that the licensee's common cause evaluation expanded scope was appropriate and did include some of the secondary side issues mentioned above. The common cause evaluation was approved on June 16, 2016 and corrective actions have not been implemented yet. The licensee has proposed to implement seven corrective actions, but only one action has been implemented thus far. The corrective actions proposed consisted of: training of management and supervision, reinforcing engineering leadership behaviors, and reviewing and identifying long-standing equipment issues. The inspectors will continue to monitor the licensee's planned corrective actions.

c. Findings

Introduction. The inspectors identified a Green 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 OPGP03-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.

Description. On April 14, 2016, inspectors walked down the Unit 1, train B essential cooling water pump room and identified that a temporary scaffold in the pump room was in actual contact with the essential cooling water piping in several locations. The inspectors notified the Unit 1 control room operators. The shift manager walked down the area and directed that the temporary scaffold be modified in a manner that would eliminate contact with the essential cooling water system. The licensee entered this condition into the corrective action program as Condition Report 16-5267.

On May 23, 2016, the inspectors walked down the Unit 1, train C electrical auxiliary building HVAC system and identified a temporary scaffold in contact with the electrical auxiliary building HVAC seismic supports and ductwork in several locations. The inspectors notified the Unit 1 control room. The shift manager walked down the area and, after verifying that all work had indeed been completed, directed the removal of the scaffold. The licensee entered this condition into the corrective action program as Condition Report 16-6962.

In both instances, the safety-related equipment were protected trains and, as such, were being relied upon while another train of redundant equipment was in a state of

maintenance. The shift manager declared the Unit 1, train B essential cooling water operable, but the Unit 1, train C electrical auxiliary building HVAC was declared operable but non-conforming due to being in contact with ductwork.

These two examples, when combined with the observations in section 4OA2.2.b above, revealed a programmatic gap in the licensee's scaffold program. The licensee wrote Condition Reports 16-5503 and 16-5508 to evaluate and improve the scaffolding program. The licensee walked down all existing scaffolding installed in the plant and did not identify any other scaffold in contact with safety-related equipment. The licensee determined that their scaffolding programs and processes were not consistent with industry peers and user groups. The licensee was planning to evaluate and modify their scaffolding program and procedures to correct the issues identified as of the end of the inspection period. According to the licensee, the scaffold program and procedures have not been reviewed or assessed since January 2006.

Analysis. The failure to have adequate procedural guidance for erecting temporary scaffold in the vicinity of safety-related components was a performance deficiency. Specifically, Procedure OPGP03-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 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 SSC, 2) represent a loss of system and/or function, 3) represent an actual loss 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].

Enforcement. Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," states, in part, that activities affecting quality shall be prescribed by procedures of a type appropriate to the circumstances. Contrary to the above, on April 14, and May 23, 2016 the licensee failed to ensure that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances. Specifically, Procedure OPGP03-ZM-0028, "Erection and Use of Temporary Scaffolding," Revision 20, did not specify scaffold clearances when erecting scaffold near safety-related mechanical and structural components. Furthermore, the procedure did not give direction to obtain an engineering evaluation when scaffold is close or actually touches safety-related components. The licensee entered the issue into the corrective action program as Condition Report 16-5503, and is

currently in the process of modifying the temporary scaffolding program and procedure to correct the violation. As an interim measure, all scaffolds installed in the plant were inspected to ensure they did not touch or interfere with any safety-related equipment. The licensee also implemented additional required briefings and inspections for new scaffolds while the procedure is being modified. This violation is being treated as a non-cited violation, consistent with Section 2.3.2.a of the Enforcement Policy: NCV 05000498/2016002-01; 05000499/2016002-01, "Inadequate Scaffold Procedure to Ensure Safety-Related Equipment Not Impacted."

### .3 Annual Follow-up of Selected Issues

#### a. Inspection Scope

The inspectors selected three issues for an in-depth follow-up:

- On December 20, 2015, while raising reactor power following Refueling Outage 1RE19, Unit 1 operators failed to control steam generator water levels resulting in a plant cooldown, a RCS letdown isolation, a pressurizer power-operated relief valve to lift, and unplanned entry into two technical specifications.

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews, compensatory actions, and the licensee's use of technical specifications. The inspectors verified that the licensee appropriately prioritized and implemented corrective actions and that these actions were adequate to correct the procedural inadequacies discovered.

- On December 31, 2015, following the first 100 percent incore flux map for Unit 1 cycle 20, the licensee discovered incore relative quadrant power tilts were measured slightly outside of the normal band.

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews and compensatory actions. The inspectors verified that the licensee appropriately prioritized the planned corrective actions and that these actions were adequate to continue to monitor and understand the condition.

- On April 25, 2016, inspectors reviewed the results of visual testing on control rod drive mechanism seismic tie rods. This was periodic testing that was not in the licensee's surveillance program. The licensee entered the technical specification for a missed surveillance even though the surveillance had never been performed because the technical specification bases allowed doing so. Testing on both units was satisfactory.

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews, compensatory actions, and the licensee's use of technical specifications. The inspectors verified that the licensee appropriately prioritized the planned corrective actions and that these actions were adequate to verify the operability of the seismic tie rods.

These activities constituted completion of three annual follow-up samples, as defined in Inspection Procedure 71152.

b. Findings

Introduction. The inspectors documented a Green self-revealed, non-cited violation of Technical Specification 6.8.1.a, "Procedures," for failure to implement procedures for power operation as described in Regulatory Guide 1.33, Revision 2, Appendix A, Section 2.g, dated February 1978. Specifically, the procedure the licensee used for low power operation failed to include adequate instructions for the control of steam generator water levels, which resulted in a plant cooldown, a letdown isolation, a pressurizer power-operated relief valve lift, and unplanned entry into two technical specification action statements.

Description. On December 20, 2015, licensed operators were attempting to raise reactor power to 20 percent following Refueling Outage 1RE19, in accordance with Procedure 0POP03-ZG-0005, "Plant Startup to 100%," Revision 95. While raising power from 14 percent power to 20 percent power, control room operators noted lowering levels in all steam generators. The reactor operator closed the steam generator feed pump (SGFP) 13 recirculation valve to increase feed flow to the steam generators by taking SGFP 13 recirculation valve hand switch from the "open" to the "auto" position. Procedure 0POP03-ZG-0005 has steps that direct closing SGFP recirculation valve once flow is stable, but that direction is used with the reactor is at higher power levels. With the hand switch in the auto position, the recirculation valve went closed as designed, effectively doubling the feed flow to the steam generators. The operators underestimated the magnitude of this change during low power operations. With the master speed controller (main feed pump speed) and feedwater regulating valves in manual, operators were not able to control the sudden influx of relatively cold feedwater to the steam generators. Steam generator water levels increased rapidly causing the reactor coolant system (RCS) temperature to cool down from 572°F to 560°F. This drop in temperature caused a change in water density that resulted in a pressurizer outsurge thus lowering pressurizer level. RCS letdown isolated on low pressurizer level at 17 percent as designed, and final pressurizer level reached 13.4 percent. Due to the loss of letdown (which results in an increase of volume in the RCS) and plant operators reducing turbine load to raise the temperature of the RCS, primary plant pressure then began increasing and a pressurizer power-operated relief valve lifted at 2330 psig as designed. The licensee subsequently made two unplanned technical specification action statement entries: 3.1.1.4 for minimum temperature for criticality (561°F) and 3.2.5 for departure from nucleate boiling related to RCS pressure. The crew halted the power ascension and responded to the transient using approved procedures and stabilized reactor power at 14 percent. The licensee was able to comply with and exit both affected technical specification action statements.

The licensee wrote condition report 2015-26657 to investigate the event. The licensee performed a root cause and determined that procedure 0POP03-ZG-0005 lacked cautions and guidance for closing SGFP recirculation valves and the effect on feed water flow rate. The licensee has made procedure changes and performed simulator training to ensure that operators understood the issue and how feed water flow should be increased at lower power.

Analysis: The inspectors determined that the failure to control steam generator water levels due to an inadequate procedure during lower power operations was a performance deficiency. The performance deficiency 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. Specifically, the failure to control steam generator water levels resulted in a plant cooldown, a RCS letdown isolation, a pressurizer power-operated relief valve lift, and unplanned entry into two technical specification action statements. The inspectors screened this finding using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated June 19, 2012. The finding screened as Green per Section B. of Exhibit 1, "Initiating Events Screening Questions," because the finding did not result in exceeding the RCS leak rate for a small loss-of-coolant accident; did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function; and 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. Inspectors determined the finding had a cross-cutting aspect of training in the human performance area because the organization failed to provide training and ensure knowledge was transferred to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. Specifically, because the licensee provided start-up training and simulator based training, skill of the craft vice detailed procedures was thought to be adequate for controlling steam generator water levels at low power [H.9.].

Enforcement: Technical Specification 6.8.1.a. requires, in part, that procedures shall be established, implemented, and maintained covering the applicable procedures recommended Appendix A of Regulatory Guide 1.33, Revision 2. Section 2.g of Appendix A to Regulatory Guide 1.33, Revision 2 requires, procedures for power operation of the power plant. Contrary to the above, as of December 20, 2015, the licensee failed to establish, implement, and maintain procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2. Specifically, the licensee established Procedure 0POP03-ZG-0005, "Plant Startup to 100%," Revision 95, to meet the Regulatory Guide 1.33 requirement. This procedure lacked clear guidance on steam generator water level control at low power and did not discuss manipulating steam generator feedwater recirculation valves. As a result, on December 20, 2015, the licensee attempted to raise steam generator water levels by closing the feedwater recirculation valve for steam generator 13 resulting in a plant cooldown, a RCS letdown isolation, a power-operated relief valve lift, and unplanned entry into two technical specification action statements. The violation was entered into the licensee's corrective action program as Condition Report 2015-26657. This violation is being treated as a non-cited violation consistent with Section 2.3.2.a of the Enforcement Policy: NCV 05000498/2016002-02, "Failure to Control Steam Generator Water Levels at Low Power."

#### **40A3 Follow-up of Events and Notices of Enforcement Discretion (71153)**

(Closed) Licensee Event Report 05000498/2016-001-00, Unit 1 Manual Reactor Trip due to Loss of Main Feedwater to C Train Steam Generator When the Steam Generator Feedwater Regulating Valve Failed Closed

On January 26, 2016, Unit 1 manually tripped the reactor during a loss of main feedwater event. Operators found steam generator 1C feedwater regulating valve closed and were not able to manually open the valve. Operators manually tripped the reactor due to lowering water level on steam generator 1C. The auxiliary feedwater system automatically actuated on low steam generator water level. The cause of the loss of main feedwater to steam generator 1C was a failure of the manual control circuit card, which forced the feedwater regulating valve closed and prevented the operators from taking manual control in the control room or switching back to automatic control. The licensee determined the cause of the failure was a random electronic component failure of the circuit card. This issue was entered into the licensee's corrective action program as Condition Report 2016-1225, and the failed card was replaced.

The inspectors reviewed the licensee event report and related documents regarding the accuracy of the licensee event report, and the appropriateness of corrective actions. The inspectors determined the licensee's actions were adequate and appropriate. The LER was reviewed and no findings or violations of NRC requirements were identified. LER 05000498/2016-001-00 is closed.

These activities constituted completion of one event follow-up sample, as defined in Inspection Procedure 71153.

#### **40A6 Meetings, Including Exit**

##### Exit Meeting Summary

On July 14, 2016, the inspectors presented the inspection results to J. Connolly, Site Vice President, and other members of your licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

R. Aguilera, Manager, Health Physics  
J. Atkins, Manager, Systems Engineering  
M. Berg, Acting General Manager, Engineering  
C. Bowman, Manager, Nuclear Oversight  
W. Brost, Engineer III  
A. Capristo, Executive Vice President and Chief Administrative Officer  
J. Connolly, Site Vice President  
R. Dunn Jr., Manager, Nuclear Fuel and Analysis  
T. Frawley, Manager, Plant Protection/Emergency Response  
C. Gann, Manager, Employee Concerns Program  
R. Gibbs, Manager, Operations, Production Support  
R. Gonzales, Senior Licensing Engineer  
J. Hartley, Manager, Mechanical Maintenance  
G. Hildebrandt, Manager, Operations  
K. Hilscher, Manager, Training  
G. Janak, Operations Training Manager  
D. Koehl, President and CEO  
J. Lovejoy, Manager, I&C Maintenance  
R. McNeil, Manager, Maintenance Engineering  
J. Milliff, Manager, Security  
M. Murray, Manager, Regulatory Affairs  
C. Pence, Manager, Chemistry  
L. Peter, General Manager, Projects  
J. Pierce, Manager, Unit 1 Operations  
G. Powell, Chief Nuclear Officer  
D. Rencurrel, Senior Vice President, Operations  
M. Ruvalcaba, Manager, Strategic Projects  
R. Savage, Engineer, Licensing Consult Specialist  
R. Scarborough, Manager, Quality Assurance  
M. Schaefer, Plant General Manager  
R. Stastny, Maintenance Manager  
L. Sterling, Supervisor, Licensing  
J. Von Suskil, Owner Rep – NRG South Texas LP  
D. Zink, Supervising Engineering Specialist



## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened and Closed

05000498/2016002-01	NCV	Inadequate Scaffold Procedure to Ensure Safety-Related Equipment Not Impacted (Section 4OA2)
05000499/2016002-01		
05000498/2016002-02	NCV	Failure to Control Steam Generator Water Levels at Low Power (Section 4OA2)

### Closed

05000498/2016-001-00	LER	Manual Reactor Trip Due to Loss of Feedwater to C Train Steam Generator (Section 4OA3)
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## LIST OF DOCUMENTS REVIEWED

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

#### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0POP04-AE-0005	Offsite Power System Degraded Voltage	11
0PSP03-EA-0002	ESF Power Availability	35
WCG-0011	Summer Peak Period Readiness	1

#### Condition Reports (CRs)

14-12078	15-14949	15-18809	16-7881	15-21554
15-17860	16-8164			

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

#### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0POP02-AF-0001	Auxiliary Feedwater	45
0POP02-CH-0001	Essential Chilled Water System	55
0POP02-DG-12(22)	Emergency Diesel Generator	73
0POP02-HE-0001	Electrical Auxiliary Building HVAC System	37
0PSP03-AF-0007	Auxiliary Feedwater Pump 14(24) Inservice Test	47
0PSP03-CC-0011	Component Cooling Water System Valve Position Verification	8

Drawings

<u>Number</u>	<u>Title</u>	<u>Revision</u>
5S141F00024	Auxiliary Feedwater	13
5S142F00024	Auxiliary Feedwater	3
3V119V10002	Essential Chilled Water System	13
5V119V10001	Essential Chilled Water System	35

Condition Reports (CRs)

16-6650	16-6648	16-6962	16-7043	16-7044
16-7047	16-7034	16-7042	16-7035	16-7045
16-7046	16-7036	16-7037	16-7038	16-7040
16-7039	16-7041	16-7033	16-7032	

**Section 1R05: Fire Protection**

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0EAB02-FP-0006	Fire Preplan Electrical Auxiliary Building, Electrical Penetration Area Train A	2
0EAB02-FP-0010	Fire Preplan Electrical Auxiliary Building, Power Cable Vault Train A	3
0FPH59-FP-0800	Fire Preplan for Fire Pump House	1
0IVC48-FP-0403	Fire Preplan Isolation Valve Cubicle Pump Room Train C	4
0IVC49-FP-0402	Fire Preplan Isolation Valve Cubicle Pump Room Train B	4
0IVC50-FP-0401	Fire Preplan Isolation Valve Cubicle Pump Room Train A	3

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

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0POP01-ZA-0049	Condition Report Operations Evaluation Program	7
0POP02-CV-0004	Chemical and Volume Control System Subsystem	83
0POP02-EH-0001	Main Turbine Electro-Hydraulic Control System	62
0POP04-AE-0001	First Response to Loss of Any or All 13.8 KV or 4.16 KV Bus	44

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0POP01-ZA-0049	Condition Report Operations Evaluation Program	7
0POP04-RA-0001	Radiation Monitoring System Alarm Response	32
0POP04-RC-0001	High Reactor Coolant System Activity	11
0POP04-RC-0002	Reactor Coolant Pump Off Normal	38
0POP04-ZO-0005	Chemical Spills/Toxic Gas Release	1
0POP05-E0-E000	Reactor Trip or SI	23
0POP05-E0-E020	Faulted Steam Generator Isolation	11
0POP05-E0-E030	Steam Generator Tube Rupture	26
0POP09-AN-07M3	Annunciator Lampbox 1(2)-7M03 Response Instructions	80

Scenarios

<u>Number</u>	<u>Title</u>	<u>Revision</u>
RST 216.10	CVCS Issues/Prompt Operator Actions	0

Drawings

<u>Number</u>	<u>Title</u>	<u>Revision</u>
7T089F10001#1	Electro Hydraulic Fluid	50
5V119V10001#2	Essential Cooling Water	51

Condition Reports (CRs)

15-18958      16-6008      16-6556      16-5237

**Section 1R12: Maintenance Effectiveness**

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
SEG-0009	Maintenance Rule Basis Document Guideline	4
0PGP04-ZE-0313	Maintenance Rule Program	7

Meeting Agendas

<u>Title</u>	<u>Date</u>
Maintenance Rule Expert Panel	May 18, 2016

Meeting Agendas

Title

Maintenance Rule Expert Panel

Date

June 22, 2016

Work Authorization Number (WAN)

535316

Condition Reports (CRs)

16-3503

**Section 1R13: Maintenance Risk Assessments and Emergent Work Control**

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
WCG-0001	Work Screening and Processing	27
RECM-0001	Reactivity Management Guidelines	10
0POP11-DJ-002	Online Class 1E 125V DC Battery and Inverter Removal from Service and Restoration	12
0POP01-ZA-0049	Condition Report Operations Evaluation Form	7
0PSP03-HE0001	Control Room Emergency Ventilation System	15
0PGP04-ZA-0604	Probabilistic Risk Assessment Program	7
0PGP03-ZO-0039	Operations Configuration Risk Management	29
0POP01-ZO-0006	Risk Management Actions (RMAs)	23
0PGP03-ZA-0091	Configuration Risk Management Program	13
0PGP02-ZA-0003	Comprehensive Risk Management Program	13
0PGP03-ZG-RMTS	Risk-Managed Technical Specifications Program	2
0PGP03-ZE-0001	PRA Analyses/Assessments	15

Work Activity Risk (WAR)

2629

2636

STP Risk Sequences

2738                    2743                    2697                    2739                    2699  
2728

Condition Report Operations Evaluation (CROE)

14-8313-57            16-7108            09-5554

Condition Reports (CRs)

14-8313            16-7510            16-7322

**Section 1R15: Operability Determinations and Functionality Assessments**

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
ENG-300	Conduct of Engineering	14
PMI-EM-GM-0004	Main Generator Grounding Transformer Neutral Bus and Generator Isophase Bus Inspection	12

Condition Reports (CRs)

15-17588            16-5811            16-6008            12-28709

**Section 1R19: Post-Maintenance Testing**

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0POP07-DB-0005	TSC Diesel Generator Performance Test	30
0PSP03-EW-0019	Essential Cooling Water System Train C Testing	49
0POP02-EW-0001	Essential Cooling Water Operations	68

Drawings

<u>Number</u>	<u>Title</u>	<u>Revision</u>
5V119V10001#2	Essential Cooling Water	51
5R289F05038#2	Essential Cooling Water System Train 2B	18

Work Authorization Number (WAN)

487735            474650            474716            467920

Condition Reports (CRs)

16-7129            16-7136            16-7139            16-7140            16-7158  
16-5320            13-11301            13-0079

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

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
0PGP03-ZO-0022	Post-Trip Review	May 4, 2016
0PAP01-ZA-0104	Plant Operations Review Committee	13

Condition Reports (CRs)

16-6008            16-6009            16-6011

Miscellaneous

<u>Number</u>	<u>Title</u>	<u>Revision</u>
00009E0GM01#1	Elementary Diagram Main Generator Protection and Metering	22

**Section 1EP6: Drill Evaluation**

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
0ERP01-ZV-IN01	Emergency Classification	10
0ERP01-ZV-IN02	Notifications to Offsite Agencies	33
0ERP01-ZV-IN03	Emergency Response Organization Notification	18
0ERP01-ZV-IN05	Site Evacuation	16
0ERP01-ZV-SH01	Shift Manager	30
0POP03-ZG-0006	Plant Shutdown From 100% to Hot Standby	62
0POP04-RC-0001	High Reactor Coolant System Activity	11

Scenarios

<u>Number</u>	<u>Title</u>	<u>Revision</u>
RST 216.11	E-Plan Scenario (LOR 162)	0

**Section 4OA1: Performance Indicator Verification**

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OPGP03-ZO-0046	RCS Leakage Monitoring	10
OPSP03-RC-0006	Reactor Coolant Inventory	33
LDG-01	NRC Performance Indicator: Safety System Functional Failure	2
AD-007	Collection of NRC Performance Indicator Data – Reactor Coolant Specific Activity	3
PI-0002	NRC & INPO Performance Indicator: Initiating Events Cornerstone and Barrier Integrity Cornerstone	6

Work Authorization Numbers (WAN)

470781                      478232

**Section 4OA2: Problem Identification and Resolution**

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OPGP03-ZX-0002	Condition Reporting Process Procedure	51
OPGP03-ZX-0002A	Condition Reporting Process Implementation	5
OPGP03-ZX-0002B	Station Cause Analysis Program	6
OPGP04-ZA-0002	Condition Report Engineering Evaluation	24
OPOP01-ZA-0049	Condition Report Operations Evaluation Program	7
OPGP05-ZN-0004	Changes to Licensing Basis Documents and Amendments to the Operating License	20
OPEP10-ZA-0023	Visual Examination of Component Supports for ASME Section XI Inservice Inspection Program	7

Condition Reports (CRs)

15-27020                      16-6608                      16-5333                      16-5511                      16-7830

14-15135

16-6822

12-22543

**Section 40A3: Follow-up of Events and Notices of Enforcement Discretion**

Condition Reports (CRs)

16-1225

Work Authorization Number (WAN)

486767