

## UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION IV 1600 E. LAMAR BLVD ARLINGTON, TX 76011-4511

February 11, 2015

Mr. Dennis L. Koehl President and CEO/CNO STP Nuclear Operating Company PO Box 289 Wadsworth, TX 77483-0289

SUBJECT: ERRATA FOR SOUTH TEXAS PROJECT, UNITS 1 and 2 – NRC PROBLEM

IDENTIFICATION AND RESOLUTION INSPECTION REPORT

05000498/2014010; 05000499/2014010

Dear Mr. Koehl:

Due to an error in Nuclear Regulatory Commission (NRC) Inspection Report 05000498/2014010 and 05000499/2014010, dated January 30, 2015, we are requesting you please replace that report with the entire enclosed document. The changes are necessary to properly identify the information that is publicly available.

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, and its enclosure (with the exception stated below) will be available electronically for public inspection in the Nuclear Regulatory Commission's (NRC) Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Some of the material contained in the enclosed report therein contains Security-Related Information in accordance with 10 CFR 2.390(d)(1) and its disclosure to unauthorized individuals could present a security vulnerability.

"Attachment 1 to the Enclosure transmitted herewith contains SUNSI. When separated from Attachment 1 to the Enclosure, this transmittal document, the Enclosure, and Attachments 2 and 3, are decontrolled."

D. Koehl - 2 -

Therefore, the material in Attachment 1 to the Enclosure will not be made available electronically for public inspection in the NRC Public Document Room or from the PARS component of NRC's ADAMS.

Sincerely,

/RA/

Geoffrey B. Miller, Chief Technical Support Branch Division of Reactor Safety

Docket No. 50-498, 50-499 License No. NPF-76, NPF-80

Enclosure: Errata



## UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION IV 1600 E LAMAR BLVD ARLINGTON, TX 76011-4511

January 30, 2015

Mr. Dennis L. Koehl President and CEO/CNO STP Nuclear Operating Company PO Box 289 Wadsworth, TX 77483-0289

SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 and 2 - NRC PROBLEM IDENTIFICATION

AND RESOLUTION INSPECTION REPORT 05000498/2014010:

05000499/2014010

Dear Mr. Koehl:

On December 4, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed the onsite portion of the problem identification and resolution biennial inspection at the South Texas Project. On that day, the NRC inspection team discussed the results of this inspection with Mr. D. Rencurrel, Senior Vice President Operations, and other members of your staff. This discussion included a finding for which the NRC had not yet reached a significance determination. On December 18, 2014, the inspection team had completed its review and provided Mr. D. Rencurrel, and other members of your staff, the results of a detailed risk evaluation telephonically. The inspection team documented the results of this inspection in the enclosed inspection report.

Based on the inspection sample, the inspection team determined that South Texas Project's corrective action program, and your staff's implementation of it were adequate to support nuclear safety.

In reviewing your corrective action program, the team assessed how well your staff identified problems at a low threshold, your staff's implementation of the station's process for prioritizing and evaluating these problems, and the effectiveness of corrective actions taken by the station to resolve these problems. The team also evaluated other processes your staff used to identify issues for resolution. These included your use of audits and self-assessments to identify latent problems and your incorporation of lessons learned from industry operating experience into station programs, processes, and procedures. The team determined that your station's performance in each of these areas supported nuclear safety.

"Attachment 1 to the Enclosure transmitted herewith contains SUNSI. When separated from Attachment 1 to the Enclosure, this transmittal document, the Enclosure, and Attachments 2 and 3, are decontrolled."

OFFICIAL USE ONLY - SECURITY-RELATED INFORMATION

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Finally, the team determined that your station's management maintained a safety-conscious work environment in which your employees were willing to raise nuclear safety concerns through at least one of the several means available.

Nuclear Regulatory Commission inspectors documented one security finding of very low security significance (Green) in Enclosure 2. This finding involved a violation of Nuclear Regulatory Commission requirements. The Nuclear Regulatory Commission is treating this violation as a non-cited violation consistent with Section 2.3.2.a of the Enforcement Policy. The deficiency was promptly addressed and the plant complied with applicable physical protection and security prior to the inspectors leaving the site. The finding has a cross-cutting aspect in the human performance area associated with complacency in that security force personnel did not implement appropriate error reduction tools due to the repetitive nature of the activities and the expectation of successful outcomes (H.12).

Further, the inspectors also documented one licensee-identified violation determined to be of very low safety significance in this report. The NRC is also treating this violation as a non-cited violation consistent with Section 2.3.2.a of the NRC Enforcement Policy.

If you contest the violations or their significance, 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 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 to 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, and its enclosure (with the exception stated below) 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 Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Some of the material contained in the enclosed report therein contains Security-Related Information in accordance with 10 CFR 2.390(d)(1) and its disclosure to unauthorized individuals could present a security vulnerability. Therefore, the material in Enclosure 2 will not be made available electronically for public inspection in the NRC Public Document Room or from the PARS component of NRC's ADAMS.

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If you choose to provide a response and Security-Related Information is necessary to provide an acceptable response, please mark your entire response "Security-Related Information – Withhold from Public Disclosure Under 10 CFR 2.390" in accordance with 10 CFR 2.390(d)(1) and follow the instructions for withholding in 10 CFR 2.390(b)(1). In accordance with 10 CFR 2.390(b)(1)(ii), the NRC is waiving the affidavit requirements for your response.

Sincerely,

/RA/

Geoffrey B. Miller, Chief Technical Support Branch Division of Reactor Safety

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

Enclosure 1: Inspection Report 05000498/2014010; 05000499/2014010 w/Attachments:

- 2. Supplemental Information
- 3. Information Request

cc w/Enclosure: and Attachments 2 and 3 Mr. John Milliff Manager, Security STP Nuclear Operating Company P.O. Box 289 Wadsworth, TX 77483

Distribution for South Texas Project Electric Generating Station

# U.S. NUCLEAR REGULATORY COMMISSION REGION IV

Dockets: 05000498, 05000499

License: NPF-76, NPF-80

Report: 05000498/2014010; 05000499/2014010

Licensee: STP Nuclear Operating Company

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

Location: FM 521 - 8 miles west of Wadsworth, Texas

Dates: November 17 through December 18, 2014

Team Lead: H. Freeman, Senior Reactor Inspector

Inspectors: S. Alferink, Reactor Inspector

B. Baca, Health Physics InspectorA. Sanchez, Senior Resident InspectorL. Willoughby, Senior Reactor Inspector

Approved By: Geoffrey B. Miller,

Chief, Technical Support Branch Division of Reactor Safety

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#### SUMMARY

IR 05000498/2014010; 05000499/2014010; 11/17/2014 – 12/18/2014; South Texas Project Electric Generating Station, Units 1 and 2; Biennial Problem Identification and Resolution Report

The inspection activities described in this report were performed between November 17 and December 18, 2014, by four inspectors from the NRC's Region IV office and the senior resident inspector at South Texas Project Electric Generating Station. The report documents two findings of very low safety significance (Green). 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."

#### Assessment of Problem Identification and Resolution

Based on its inspection sample, the team concluded that the licensee maintained a corrective action program in which individuals generally identified issues at an appropriately low threshold. Once entered into the corrective action program, the licensee generally evaluated and addressed these issues appropriately and timely, commensurate with their safety significance. The licensee's corrective actions were generally effective, addressing the causes and extents of condition of problems.

The licensee appropriately evaluated industry operating experience for relevance to the facility and entered applicable items in the corrective action program. The licensee incorporated industry and internal operating experience in its root cause and apparent cause evaluations. The licensee performed effective and self-critical nuclear oversight audits and self-assessments. The licensee maintained an effective process to ensure significant findings from these audits and self-assessments were addressed.

The licensee maintained a safety-conscious work environment in which personnel were willing to raise nuclear safety concerns without fear of retaliation.

#### **Cornerstone: Security**

• Green. The inspectors documented one security finding of very low security significance that involved a violation of Nuclear Regulatory Commission requirements. This violation is being treated as a non-cited violation consistent with Section 2.3.2.a of the Enforcement Policy. The deficiency was promptly addressed and the plant is in compliance with applicable physical protection and security requirements. The finding has a cross-cutting aspect in the human performance area associated with complacency in that security force personnel did not implement appropriate error reduction tools due to the nature of the activities and the expectation of successful outcomes (H.12). This violation and associated corrective action tracking numbers are listed in Attachment 1, "Security Supplement," to this report.

#### **Licensee-Identified Violations**

One violation of very low safety significance identified by the licensee was 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 associated corrective action tracking numbers are listed in Section 4OA7 of this report.

#### REPORT DETAILS

#### 4. OTHER ACTIVITIES (OA)

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

The team based the following conclusions on a sample of corrective action documents that were open during the assessment period, which ranged from October 7, 2012, to the end of the on-site portion of this inspection on December 4, 2014.

#### .1 Assessment of the Corrective Action Program Effectiveness

#### 1. Inspection Scope

The team reviewed approximately 180 condition reports (CR), including associated root cause analyses and apparent cause evaluations, from approximately 32,000 that the licensee had initiated or closed. The majority of these (approximately 31,500) were lower-level condition reports that did not require cause evaluations. The licensee classifies condition reports as conditions not adverse to quality (CNAQ), conditions adverse to quality department or station (CAQ-D or CAQ-S), or significant conditions adverse to quality (SCAQ). Only conditions classified as CAQ-S and SCAQ require a cause evaluation as part of the resolution. The inspection sample focused on higher-significance condition reports for which the licensee evaluated and took actions to address the cause of the condition. In performing its review, the team evaluated whether the licensee had properly identified, characterized, and entered issues into the corrective action program, and whether the licensee had appropriately evaluated and resolved the issues in accordance with established programs, processes, and procedures. The team also reviewed these programs, processes, and procedures to determine if any issues existed that may impair their effectiveness.

The team reviewed a sample of performance metrics, system health reports, operability determinations, self-assessments, trending reports and metrics, and various other documents related to the licensee's corrective action program. The team evaluated the licensee's efforts in determining the scope of problems by reviewing selected logs, work orders, self-assessment results, audits, system health reports, action plans, and results from surveillance tests, and preventive maintenance tasks. The team reviewed daily condition reports and attended the licensee's condition report screening meetings to assess the reporting threshold and prioritization efforts, and to observe the corrective action program's interfaces with the operability assessment and work control processes. The team's review included an evaluation of whether the licensee considered the full extent of cause and extent of condition for problems, as well as a review of how the licensee assessed generic implications and previous occurrences of issues. The team assessed the timeliness and effectiveness of corrective actions, completed or planned, and looked for additional examples of problems similar to those the licensee had previously addressed. The team conducted interviews with plant personnel to identify other processes that may exist where problems may be identified and addressed outside the corrective action program.

The team reviewed corrective action documents that addressed past NRC-identified violations to evaluate whether corrective actions addressed the issues described in the

inspection reports. The team reviewed a sample of corrective actions closed to other corrective action documents to ensure that the ultimate corrective actions remained appropriate and timely.

The team considered risk insights from both the NRC's and South Texas Project's risk models to focus the sample selection and plant tours on risk-significant systems and components. The team focused a portion of its sample on the auxiliary feedwater, high and low head safety-injection, reactor protection, and quality display processing systems, which the team selected for a five-year in-depth review. The team conducted walk-downs of these systems and other plant areas to assess whether licensee personnel identified problems at a low threshold and entered them into the corrective action program.

#### 2. Assessments

#### 1. <u>Effectiveness of Problem Identification</u>

During the 26-month inspection period, licensee staff generated approximately 32,000 condition reports. The team determined that most conditions that required generation of a condition report by Procedure 0PGP03-ZX-0002, "Condition Reporting Process," Revision 49, had been appropriately entered into the corrective action program.

The team identified some examples where the licensee failed to promptly initiate condition reports upon discovery of conditions that warrant entry into the corrective action program. The main reason provided for the delays were licensees' personnel "investigating" the issues to ensure that it needed to be placed into the corrective action program. The following are specific examples:

- Condition Report (CR) 11-8101 documented an instance where an auxiliary feedwater pump terry turbine failed to trip during overspeed testing. During their evaluation, the licensee disassembled the overspeed trip assembly and documented differences between the old trip weight and the new trip weight. The team identified that the licensee evaluated the differences between the new trip weight and the old trip weight, but failed to evaluate why the new trip weight was not identical to the old trip weight. (CR 14-25242)
- Condition Report 14-22901 was written to address a specific issue where the
  resident inspector observed deficiencies in licensed operator requalification
  program that were placed into the corrective action program three weeks
  after being identified by the resident inspector.
- In the summer of 2013, the resident inspector observed and communicated an instance where the dedicated spotter for individuals moving a load onto a flatbed trailer became involved in the lift and was no longer ensuring their personnel safety. While this observation did not fall under NRC jurisdiction, it did meet management's expectations for entry into the corrective action program as a CNAQ.

Overall, the team concluded that the licensee generally maintained a low threshold for the formal identification of problems and entry into the corrective action program for evaluation. Licensee personnel initiated over 1,200 condition reports per month during the inspection period. Most of the personnel interviewed by the team understood the requirements for condition report initiation and most expressed a willingness to enter newly identified issues into the corrective action program at a very low threshold.

#### 2. Effectiveness of Prioritization and Evaluation of Issues

The sample of condition reports reviewed by the team focused primarily on issues screened by the licensee as having higher-level significance, including those that received cause evaluations, those classified as significant conditions adverse to quality, and those that required engineering evaluations. The team also reviewed a number of condition reports that included or should have included immediate operability determinations to assess the quality, timeliness, and prioritization of these determinations.

The team also attended several condition report screening committee meetings, interviewed several condition report screening committee members, and noted an improvement from the previous biennial inspection. The team had the following observations:

- The process for screening condition reports had been modified shortly before
  the inspection in order to reduce the number of screeners (department
  performance improvement coordinators) who can screen condition reports
  and to gain consistency in significance and trending.
- The licensee adopted the Utilities Service Alliance trend codes, but some of those using the codes lacked an understanding and use of these codes.
- Although the licensee structured and standardized the screening committee meeting to gain consistency, the meeting does not have a formalized meeting agenda.

The team concluded that, in general, root cause evaluations were appropriately evaluated and adequate corrective actions developed; however, there were several instances where Tier 1 and Tier 2 apparent cause evaluations lacked appropriate structure and the relationship between cause evaluation and the stated apparent cause was not clear. The team further concluded that in several instances, the management performance improvement committee (MPIC) might have inadvertently directed changes to the apparent cause during committee review, which may have led to some of these issues. The team had the following observations:

 Condition Reports 12-28186, 13-2611, and 14-7054 had issues where the "WHY" staircase were as short as two questions in nature, the answer to one question did not flow into the following question in the staircase, and the final answer in the staircase did not match the stated apparent case. These items were entered into the corrective action program as Condition Reports 14-22976, 22979, and 22980.

- There was often not enough detail in MPIC meeting minutes or in the condition report to clearly provide a basis for revising the original assessment in the root or apparent cause evaluations.
- There was some evidence that the MPIC meetings we perceived as interrogative, directive in nature, and appears intimidating to those individuals presenting evaluations.
- MPIC meetings often review root and apparent cause evaluations after they had been completed. The result of this is that MPIC made recommendations that lead to changing or re-performing the evaluation, which could result in changes to the corrective action, and delay timeliness of that corrective action. Furthermore, there were no timeliness requirements to incorporate the changes or to have MPIC review implementation of those changes for adequacy. The team identified several revisions that were issued months after the initial 30-day timeliness goal for cause evaluations.

The team also identified a security-related issue during review of this area, which is not being made publicly available (reference Attachment 1 of the enclosure to the transmittal letter).

Overall, the team determined that the licensee's process for screening and prioritizing issues that had been entered into the corrective action program supported nuclear safety. The licensee's operability determinations were consistent, accurately documented, and completed in accordance with procedures.

#### 3. Effectiveness of Corrective Actions

In general, the corrective actions identified by the licensee to address adverse conditions were effective. The team noted one instance in which corrective actions had been untimely or incompletely accomplished:

Condition Report 11-10791 documented a minor violation of License Condition 2.E for the failure to test and demonstrate the 8-hour capacity of the emergency lights. In response to this issue, the licensee performed a one-time small sample discharge test of the emergency lights. The team reviewed the corrective actions and concluded that the licensee's program still did not demonstrate the 8-hour capacity of the emergency lights and the violation of License Condition 2.E still existed. Based on the results of the one-time discharge test, the team concluded that the failure to comply with License Condition 2.E constituted a minor violation that was not subject to enforcement action in accordance with the NRC's Enforcement Policy (CR 14-16243).

Overall, the team concluded that the licensee generally identified effective corrective actions for the problems evaluated in the corrective action program. The licensee generally implemented these corrective actions in a timely manner, commensurate with their safety significance, and reviewed the effectiveness of the corrective actions appropriately.

#### .2 Assessment of the Use of Operating Experience

#### a. <u>Inspection Scope</u>

The team examined the licensee's program for reviewing industry operating experience, including reviewing the governing procedures. The team reviewed a sample of four industry operating experience communications and the associated site evaluations to assess whether the licensee had appropriately assessed the communications for relevance to the facility. The team also reviewed assigned actions to determine whether they were appropriate.

#### b. Assessment

Overall, the team determined that the licensee appropriately evaluated industryoperating experience for its relevance to the facility. The team chose industry-operating experience deemed not relevant to the facility by the licensee along with the industryoperating experience that was relevant. The relevant industry-operating experience information was incorporated into plant procedures and processes as appropriate.

The team further determined that the licensee appropriately evaluated industry-operating experience when performing root cause analysis and apparent cause evaluations. The licensee appropriately incorporated both internal and external operating experience into lessons learned for training and pre-job briefs.

#### .3 Assessment of Self-Assessments and Audits

#### a. <u>Inspection Scope</u>

The team reviewed a sample of licensee self-assessments and audits to assess whether the licensee was regularly identifying performance trends and effectively addressing them. The team also reviewed audit reports to assess the effectiveness of assessments in specific areas. The specific self-assessment documents and audits reviewed are listed in Attachment 2.

#### b. Assessment

Overall, the team concluded that the licensee had an effective self-assessment and audit process. The team determined that self-assessments were self-critical and thorough enough to identify deficiencies. The team noted that a couple of self-assessments had identified long-standing issues within the area of emergency preparedness and noted that while many of these issues continued to exist, the licensee had made progress in addressing those issues.

#### .4 Assessment of Safety-Conscious Work Environment

#### a. Inspection Scope

The team interviewed 100 individuals in 10 focus groups. The purpose of these interviews was (1) to evaluate the willingness of licensee staff to raise nuclear safety issues, either by initiating a condition report or by another method, (2) to evaluate the

perceived effectiveness of the corrective action program at resolving identified problems, and (3) to evaluate the licensee's safety-conscious work environment (SCWE). The focus group participants included personnel from operations, engineering, maintenance, chemistry, radiation protection, decontamination, administrative, data specialist, nuclear purchasing, material management, security, and contractors. At the team's request, the licensee's regulatory affairs staff provided participants from the work groups based on availability. The team selected the participants blindly from the provided participants. To supplement these focus group discussions, the team interviewed the Employee Concerns Program Manager to assess her perception of the site employees' willingness to raise nuclear safety concerns. The team reviewed the Employee Concerns Program case log and select case files. The team also reviewed the minutes from the licensee's most recent safety culture monitoring panel meetings.

#### b. Assessment

#### 1. Willingness to Raise Nuclear Safety Issues

All individuals interviewed indicated that they would raise nuclear safety concerns. All felt that their management was receptive to nuclear safety concerns and was willing to address them promptly. All of the interviewees further stated that if they were not satisfied with the response from their immediate supervisor, they had the ability to escalate the concern to a higher organizational level. Most expressed positive experiences after raising issues to their supervisors. All expressed positive experiences documenting most issues in condition reports. One concern that was discussed was the ability to submit an anonymous condition report. The licensee's program did not allow submitting an anonymous condition report and not all personnel had access to submit a condition report unless they go through a supervisor.

#### 2. Employee Concerns Program

All interviewees were aware of the Employee Concerns Program. Most explained that they had heard about the program through various means, such as posters, training, presentations, and discussion by supervisors or management at meetings. All interviewees stated that they would use Employee Concerns if they felt it was necessary. All expressed confidence that their confidentiality would be maintained if they brought issues to Employee Concerns. Additionally, the licensee required long term contractors, contractors on site for greater than 180 days, to have an Employee Concerns Program. The programs we monitored by the licensee, but not by the Employee Concerns Manager unless assigned.

#### 3. Preventing or Mitigating Perceptions of Retaliation

When asked if there have been any instances where individuals experienced retaliation or other negative reaction for raising issues, all individuals interviewed stated that they had neither experienced nor heard of an instance of retaliation, harassment, intimidation, or discrimination at the site. The team determined that processes in place to mitigate these issues were being successfully implemented.

#### .5 Findings

The inspectors documented one security finding of very low security significance (Green) in Attachment 1 to the enclosed report. This violation is being treated as a non-cited violation, consistent with Section 2.3.2.a of the NRC Enforcement Policy. The deficiency was promptly corrected or compensated, and the plant was in compliance with the applicable physical protection, and security requirements before the inspection team left the site.

#### 4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)

.1 (Closed) Licensee Event Report 05000499/2014-001-00, "Standby Diesel Generator 23 Essential Cooling Water Leak Through the Wall of Aluminum-Bronze Pipe Nipple"

On December 31, 2013, a 3 gallon-per-minute essential cooling water leak was discovered on standby diesel generator 23 at a one-half inch aluminum-bronze threaded connection. The leak was initially identified as a 60 drop-per-minute leak on November 6, 2013. A subsequent reportability review determined that the standby diesel generator had been inoperable since the leak was initially discovered, resulting in safety system inoperability for approximately 55 days, which exceeded technical specification allowed outage time of 14 days. The aluminum-bronze nipple and tee assembly were replaced with an approved stainless-steel nipple and tee assembly. The licensee determined the cause of the failure to be a result of erosion of the aluminum-bronze nipple and tee assembly that led to a through-wall essential cooling water leak on standby diesel generator 23. The licensee subsequently ensured that all other aluminum-bronze nipples and tee assemblies on the remaining standby diesel generators were replaced. This event was placed into the corrective action program as Condition Report 13-15904; a licensee event report was submitted to the NRC on March 17, 2014; and Tier 1 apparent cause evaluation was performed.

The team reviewed the licensee event report and the apparent cause evaluation and interviewed licensee personnel involved in the issue. The team determined that the licensee took appropriate actions required by technical specifications upon discovery of the condition. A licensee identified violation of very low safety significance (Green) is documented in Section 4OA7 of this report.

#### 4OA6 Meetings, Including Exit

#### **Exit Meeting Summary**

On December 4, 2014, the inspectors presented the preliminary inspection results to Mr. D. Rencurrel, Senior Vice President Operations, and other members of the licensee staff. This discussion included a finding for which the NRC had not yet reached a significance determination. On December 18, 2014, the inspection team had completed its review and provided Mr. Rencurrel, and other members of your staff, the results of a detailed risk evaluation telephonically. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary or sensitive information reviewed by the inspectors had been returned or destroyed.

#### 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.

established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected...." Contrary to the above, November 6 through December 31, 2014, the licensee identified a condition adverse to quality, but failed to take prompt corrective action for the condition. Specifically, the licensee identified a 60 drop-per-minute essential cooling water system leak on standby emergency diesel generator 23 on November 6, 2013. On December 31, 2013, during a surveillance test, the essential cooling water leak had grown to 3 gallons per minute, which rendered the diesel generator inoperable and would not have been able to meet its designed mission time of 30 days. The licensee determined that the diesel was inoperable since the initial discovery on November 6, 2013, (55 days) and as such exceeded the technical specification allowed outage time of 30 days.

The failure to promptly correct the essential cooling water system leak on standby diesel generator 23, which rendered the diesel incapable of meeting its mission time, was a performance deficiency. The performance deficiency was more than minor because it was associated with the equipment performance attribute and adversely affected the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) For Findings At-Power," dated July 1, 2012, the inspectors determined that the finding required a detailed risk evaluation. A senior reactor analyst performed the detailed risk evaluation and determined that the change to core damage frequency was much less than 1E-6/year. Therefore, the finding was of very low safety significance (Green). The dominant core damage sequences included seismic initiated loss of offsite power; failure of the essential cooling water train; failure of the train A and B standby emergency diesel generators; failure to recover offsite power and an emergency diesel generator in 4 hours; and an event-initiated reactor coolant pump seal loss of coolant accident. Remaining mitigation equipment that helped to limit the significance included the remaining functional essential cooling water trains. standby emergency diesel generators, and the turbine driven auxiliary feedwater pump.

#### **SUPPLEMENTAL INFORMATION**

#### **KEY POINTS OF CONTACT**

#### Licensee Personnel

- D. Abell, Performance Improvement Specialist
- R. Aguilera, Manager, Health Physics
- J. Atkins, Manager, Systems Engineering
- R. Barr, Supervisor, Corrective Action Program
- M. Berg, Manager, Design Engineering/Test & Programs
- C. T. Bowman, General Manager, Nuclear Oversight
- D. Caraballo, System Engineer
- J. Crain, Manager, Emergency Response Plant Protection Department Support
- M. Crutcher, System Engineer
- R. Dunn Jr, Manager, Nuclear Fuel & Analysis
- M. Farmer, Security System Engineer
- T. Frawley, Manager, Plant Protection/Emergency Response
- C. Gann, Manager, Employee Concerns Program
- M. Gandt, Engineer, Nuclear Steam Supply Systems
- R. Gubbs, Manager, Operations Division-Production Support
- A. Hasan, System Engineer
- J. Heil, Program Engineer
- L. Huerta, Supervisor, Security Training
- G. Hildebrandt, Manager, Operations
- B. Jenewein, Manager, Performance Improvement
- L. Knox, Security Compliance Specialist
- R. Lonazo, System Engineer
- L. Meier, Project Manager, Regulated Security Solutions
- A. McGalliard, Manager, Corporate Staff Support & Owner Liaison
- J. Milliff, Manager, Security
- M. Murray, Manager, Regulatory Affairs/Licensing
- G. Powell. Site Vice President
- D. Rencurrel, Senior Vice President Operations
- P. Rodgers, System Engineer
- R. Savage, Licensing Engineering Specialist
- R. Scarborough, Manager, Quality Assurance
- M. Schaefer, Plant General Manager
- R. Stastny, Manager, Maintenance
- L. Sterling, Supervisor, Licensing
- T. Upton, Technical Supervisor, Maintenance
- M. Uribe, Manager, Work Control
- T. Vajdos, System Engineer
- D. Whiddon, Supervisor, Quality
- J. Winters, Lead Investigator
- D. Zink, Supervisor, Engineering Specialist

"Attachment 1 to the Enclosure contains SUNSI. When separated from Attachment 1 to the Enclosure, the Enclosure and Attachments 2 and 3, are decontrolled."

A2-1 Attachment 2

#### NRC Personnel

- N. Hernandez, Resident Inspector
- G. Miller, Chief, Technical Support Branch
- G. Replogle, Senior Reactor Analyst

#### LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened and Closed

05000498/2014010-01 NCV Failure to Follow Security Procedure 05000499/2014010-01

#### Closed

05000499/2014-001-00 LER Standby Diesel Generator 23 Essential Cooling Water Leak Through the Wall of Aluminum-Bronze Pipe Nipple

#### LIST OF DOCUMENTS REVIEWED

Condition Reports				
08-16140	09-387	09-1736	09-4465	09-5524
09-6591	09-6949	09-8195	09-9594	09-9986
09-11422	09-13142	09-14961	09-16144	09-16155
09-16366	09-18746	09-20129	09-21177	10-227
10-302	10-321	10-543	10-4928	10-6359
10-10425	10-25855	11-483	11-771	11-3584
11-3756	11-3908	11-4895	11-12020	11-15707
11-19073	11-21271	11-21275	11-26455	11-27182
12-483	12-13560	12-14431	12-22937	12-23535
12-24501	12-26558	12-27023	12-27493	12-27569
12-27648	12-28135	12-28186	12-28283	12-28600
12-28689	12-28901	12-29159	12-29161	12-31703
13-102	13-103	13-285	13-317	13-325
13-568	13-2311	13-2551	13-2611	13-3161
13-4566	13-5188	13-6031	13-6145	13-6543
13-7209	13-8786	13-8855	13-8957	13-9440
13-9648	13-9844	13-9932	13-10831	13-10896
13-10898	13-10902	13-10949	13-11358	13-11380
13-11528	13-11729	13-13857	13-15806	13-15904
14-22808*	14-23546*	14-25242*	14-62	14-298
14-514	14-518	14-747	14-1374	14-1712
14-2040	14-3306	14-3686	14-4235	14-4488
14-4501	14-4517	14-4650	14-4762	14-4895
14-5066	14-5383	14-6318	14-7054	14-7985
14-8012	14-8022	14-8213	14-9152	14-9634
14-9637	14-9939	14-11207	14-11266	14-13030
14-13247	14-13252	14-13314	14-13674	14-13925
14-17123	14-17723	14-18263	14-19793	14-20710
14-22328	14-22507	14-22532	14-22639	14-22811
14-22901	14-22976	14-24843	14-25164	14-72222

<sup>\*</sup>Issued as a result of inspection activities.

<u>Drawings</u>

<u>Number</u> <u>Title</u> <u>Revision</u>

00009E0DJAB, Single Line Diagram, 125V DC Class 1E Distribution

Sheet 1 Switchboard, E1D11 (Channel II)

Miscellaneous Documents

Number <u>Title</u> <u>Revision/Date</u>

Life Cycle Management Plan: Rod Control System

Life Cycle Management Plan: Nuclear Instrumentation System

Life Cycle management Plan: Qualified Display Processing

System

Solid State Protection System Health Report September 30,

2014

22

Nuclear Instrumentation System Health Report September 30,

2014

7300 Processor Support System Health Report September 30,

2014

Qualified Display Processing System Health Report September 30,

2014

STP Security System Health Report September 25,

2014

Executive Oversight Board March 2013

June 2103

November

2013

January 2014

May 2014

October 2014

STP Reporting Manual 11

Regual Qualification Checkout Card (RQCC) No. 2164: Conduct

Personnel Search

#### Miscellaneous Documents

<u>Number</u>	<u>Title</u>	Revision/Date
	Requal Qualification Checkout Card (RQCC) No. 2165: Perform Material Search	
	Plan of Action: Increased Trend of NRC Performance Indicator	March 24, 2014
	Physical Security Quality Audit Reports	October 10, 2012
		September 18, 2013
		September 11, 2014
	Safeguards Event Log	
	Conduct of Operations for Radiation Protection – Chapter 9, "Radiation Protection Condition Reporting Guideline"	15
	Conduct of Operations for Radiation Protection – Chapter 22, "RP Observations Program"	
	High and Low Head Safety Injection Pumps In-Service Testing Trend for Units 1 and 2	July 2009 through September 2014
13-01	Emergency Preparedness Quality Audit Report	March 11, 2013
13-04	Corrective Action Program Supplemental Quality Audit Report	July 9, 2013
13-05	Maintenance Quality Control Audit Report	August 7, 2013
14-01	Emergency Preparedness Quality Audit Report	March 12, 2014
14-02	Radiological Controls Quality Audit Report	March 31, 2014
14-03	Testing and Programs Quality Audit Report	June 4, 2014

Miscellaneous Documents

ZX-002B

#### <u>Number</u> <u>Title</u> Revision/Date MN-14-**Quality Monitoring Report** November 13, 2014 103668 **Preventive Maintenance Tasks** PM 1336 PM 1337 PM 1341 PM1342 Procedure Number Title Revision 3 0PGP03-Fluid Leak Management Program ZA-0133 0PGP03-RCS Pressure Boundary Inspection for Boric Acid Leaks 9 ZE-0033 0PGP03-**Boric Acid Corrosion Program** 8 ZE-0133 0PGP03-Installed Plant Instrumentation Calibration Verification Program 25 ZM-0016 0PGP03-Operational Decision-Making 4 ZO-0054 0PGP03-Operability Determination and Functionality Assessments Program 6 ZO-9900 0PGP03-Operability Determinations and Functionality Assessments Program 6 ZO-9900 0PGP03-Operability Determinations and Functionality Assessments 4 ZO-900A 0PGP03-**Condition Reporting Process** 50 ZX-0002 0PGP03-**CAQ Resolution Process** 4 ZX-002A 0PGP03-Station Cause Analysis Program 5

<u>Procedure</u>			
<u>Number</u>	<u>Title</u>		Revision
0PGP03- ZX-0008	Conditions Not Adverse to Quality	(CNAQ) Resolution Proce	ess
0PGP05- ZN-0009	NRC Inspection / Interface Activities	es .	
0POP01- ZO-0011	Operability, Functionality, and Rep	ortaility Guidance	9
0POP01- ZO-0011	Operability, Functionality, and Rep	ortability Guidance	9
0PSP03- AF-0001	Auxiliary Feedwater Pump 11(21)	Inservice Test	35
0PSP03- AF-0007	Auxiliary Feedwater Pump 14(24)	Inservice Test	44
Security Instruction 1005	Security Incidents		6
Security Instruction 2101	Access Control		22
SEG-0008	Printed Circuit Board Maintenance	and Replacement Guide	line
SG-005	Performing and Documenting Eval	uations	
WCG-003	Planner's Guide		36
Work Order	<u>s</u>		
32580862 32592449 32592456 32622205 32657597 32657618 32683168 32746542 32747151 32748096 32762817 32764187	32789036 32819905 32819981 32823335 32848427 32848449 32857451 32874207 32874237 32906926 32951496 32954403	33028547 33196159 33211839 33254140 33329299 33389559 33525272 33559632 33559717 33570188 33587688 33587766	33603766 33616204 33617639 33639146 33639164 33639483 33659703 33659705 33663496 33689554 33689584 33689584

33724501	33810329	33898174	484418
33724526	33816256	33910719	
33759248	33836230	33913974	
33781745	33842544	33950398	
33784486	33851931	33959688	
33806141	33878328	33959970	

# Information Request June 26, 2014 Biennial Problem Identification and Resolution Inspection – November 17 – December 5, 2014 South Texas Project Inspection Report Number 05000498/2014010, 050499/2014010

This inspection will cover the period from October 7, 2012, through the end of the inspection on December 5, 2014. All requested information should be limited to this period or to the date of the request unless otherwise specified. To the extent possible, provide the requested information electronically in Adobe PDF (preferred) or Microsoft Office format. Provide paper copies of any sensitive information during the team's first week on site; do not provide sensitive or proprietary information electronically.

Lists of documents (summary lists) should be provided in Microsoft Excel or a similar sortable format. Please provide the information on a compact disc (one for each team member), if possible. This information may also be uploaded on the Certrec IMS website if so desired.

Please provide the following no later than October 10, 2014:

#### 1. Document Lists

Note: For these summary lists, please include the document/reference number, the document title or description of the issue, the priority, initiation date, status, and long text descriptions of the issues.

- a. Summary list of all corrective action documents related to significant conditions adverse to quality that were opened, closed, or evaluated during the period
- b. Summary list of all corrective action documents related to conditions adverse to quality that were opened or closed during the period
- c. Summary lists of all corrective action documents which were upgraded or downgraded in priority/significance during the period
- d. Summary list of all corrective action documents that subsume or "roll up" one or more smaller issues for the period
- e. Summary lists of operator workarounds, engineering review requests and/or operability evaluations, temporary modifications, and control room and safety system deficiencies opened, closed, or evaluated during the period
- f. Summary list of plant safety issues raised or addressed by the Employee Concerns Program (or equivalent)
- g. Summary list of all Apparent Cause Evaluations completed during the period
- h. Summary list of all Root Cause Evaluations planned or in progress, but not complete at the end of the period

A3-1 Attachment 3

#### 2. Full Documents with Attachments

- a. Root Cause Evaluations completed during the period
- b. Quality assurance audits performed during the period
- c. All audits/surveillances performed during the period of the Corrective Action Program, of individual corrective actions, and of cause evaluations
- d. Corrective action activity reports, functional area self-assessments, and non-NRC third party assessments completed during the period (do not include INPO assessments)
- e. Corrective action documents generated during the period for the following:
  - i. All Cited and Non-Cited Violations Issued to South Texas Project
  - ii. All Licensee Event Reports Issued by South Texas Project
- f. Corrective action documents generated for the following, if they were determined to be applicable to South Texas Project (for those that were evaluated but determined not to be applicable, provide a summary list):
  - i. NRC Information Notices, Bulletins, and Generic Letters issued or evaluated during the period
  - ii. Part 21 reports issued or evaluated during the period
  - iii. Vendor safety information letters (or equivalent) issued or evaluated during the period
  - iv. Other external events and/or Operating Experience evaluated for applicability during the period
- g. Corrective action documents generated for the following:
  - i. Emergency planning drills and tabletop exercises performed during the period
  - ii. Maintenance preventable functional failures which occurred or were evaluated during the period
  - iii. Adverse trends in equipment, processes, procedures, or programs which were evaluated during the period
  - iv. Action items generated or addressed by plant safety review committees during the period

#### 3. Logs and Reports

- a. Corrective action performance trending/tracking information generated during the period and broken down by functional organization
- b. Corrective action effectiveness review reports generated during the period
- c. Current system health reports or similar information
- d. Radiation protection event logs during the period
- e. Security event logs and security incidents during the period (sensitive information can be provided by hard copy during first week on site)
- f. Employee Concern Program (or equivalent) logs (sensitive information can be provided by hard copy during first week on site)
- g. List of Training deficiencies, requests for training improvements, and simulator deficiencies for the period

#### 4. Procedures

- a. Corrective action program procedures (initiation, evaluation, classification, and disposition of conditions adverse to quality). Include operability determination procedures, root and apparent cause evaluation procedures and any other procedures that implement the corrective action program
- b. Maintenance rule program and implementing procedures
- c. Operating experience program
- d. Employee concerns program
- e. Self-assessment program
- f. Degraded/non-conforming condition process (e.g., RIS 2005-20)
- g. System Health process or equivalent equipment reliability improvement programs
- h. Operational Decision Making (ODMI) process

#### 5. Other Items

 Scheduled date/time/location of all meetings associated with implementation of the corrective action program, such as screening meetings, corrective action review board meetings, etc.

- b. A list of condition reports generated as a result of identified trends. The list should be sorted by priority and have the following information; number, title/description. date initiated, status, and initiating department.
- c. A list of outstanding corrective actions, sorted by priority, with the following information: number; priority; system/component affected, initiating date and due date. Please also identify and list any associated due date extensions.
- d. A chronological list of all nuclear Quality Assurance/Nuclear Oversight audits and department/station self-assessments including their reference number.
- e. A list of all system health reports.
- f. All copy of assessments or evaluations (internal or external) regarding station or department safety-culture.
- q. A list of all operability determinations and ODMIs performed with the following information: date initiated, initiating CR and status (open or closed).
- h. A list of maintenance preventable functional failures (MPFFs) of risk-significant systems (include actions completed and current status). A list of current Maintenance Rule a(1) systems and a list of those systems that entered a(1) within the last two years, but which were returned to a(2) status. Include a copy of the current system health report for those systems now in a(1).
- i. Copy of the latest corrective action program statistics such as the number initiated by department, human performance errors by department, backlog, corrective action timeliness, and others as may be available.
- j. List of industry operating experience evaluated by the site and associated condition report number if applicable. Additionally, list of all NRC generic communications (information notices, generic letters, etc.) evaluated by the site for applicability to the station regardless of the determination of applicability.
- k. A chronological list of all Licensee Event Reports, with a brief description of the affected components or systems.
- I. A listing of the top 10 risk-significant systems, components, and/or operator manual actions as appropriate.

Please provided on CDs and/or DVDs sent via overnight carrier to:

U.S. NRC Region IV 1600 E. Lamar Blvd. Arlington, TX 76011-4511

**Attention: Harry Freeman** 

Please note that the NRC is not currently able to accept electronic documents on thumb drives or other similar digital media.

D. Koehl - 2 -

Therefore, the material in Enclosure 2 will not be made available electronically for public inspection in the NRC Public Document Room or from the PARS component of NRC's ADAMS.

Sincerely,

/RA/

Geoffrey B. Miller, Chief Technical Support Branch Division of Reactor Safety

Docket No. 50-498, 50-499 License No. NPF-76, NPF-80

Enclosure: Errata

DISTRIBUTION See next page

ERRATA Cover Letter , Enclosure, Attachments 2 & 3 ML15043A118										
■ SUNSI Review: ADAMS:			☑ Publicly Available			■ Non-Sens	itive	Keyword	RGN-002	
By: DEA   ☑ Yes □ No		□No	☐ Non-Publicly Available			□ Sensitive				
OFFICE	BC: F	PB B	STA:TS	B	C:TSB					
NAME	NO'K	eefe	DAllen		GMiller					
SIGNATURE	/RA/		/RA/		/RA/					
DATE	2/11/	15	2/9/15		2/11/15					

OFFICAL RECORD COPY

Letter to Dennis L. Koehl from Geoffrey B. Miller, dated February 11, 2015

SUBJECT: ERRATA FOR SOUTH TEXAS PROJECT, UNITS 1 and 2 – NRC PROBLEM

IDENTIFICATION AND RESOLUTION INSPECTION REPORT

05000498/2014010; 05000499/2014010

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