UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

December 6, 2000

William T. Cottle, President and
Chief Executive Officer
STP Nuclear Operating Company
P.O. Box 289
Wadsworth, Texas 77483

SUBJECT: SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION-NRC INTEGRATED INSPECTION REPORT NO. 50-498/00-12; 50-499/00-12

Dear Mr. Cottle:

This refers to the inspection conducted on September 24 through November 11, 2000, at the South Texas Project Electric Generating Station, Units 1 and 2 facility. The enclosed report presents the results of this inspection.

This inspection was an examination of activities conducted under your licenses as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the NRC has identified one issue that was evaluated under the risk significance determination process as having very low safety significance (green). The NRC has also determined that one violation occurred associated with this issue. This violation is being treated as a noncited violation (NCV), consistent with Section VI.A of the Enforcement Policy. This NCV is described in the subject inspection report. If you contest the violation or significance of this NCV, 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, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, and the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001 and the NRC Resident Inspector at South Texas Project Electric Generating Station, Units 1 and 2 facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/

Joseph I. Tapia, Chief
Project Branch A
Division of Reactor Projects

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

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NRC Inspection Report No.
50-498/2000-12; 50-499/2000-12

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STP Site Secretary **(LAR)**
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R:_STP\2000\ST2000-12RP-NFO.WPD

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ENCLOSURE 1

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket Nos.:	50-498 50-499
License Nos.:	NPF-76 NPF-80
Report No.:	50-498/00-12 50-499/00-12
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:	September 24 through November 11, 2000
Inspectors:	N. F. O'Keefe, Senior Resident Inspector G. L. Guerra, Resident Inspector W. A. Maier, Senior Emergency Preparedness Inspector P. J. Elkmann, Emergency Preparedness Inspector D. R. Carter, Health Physicist J. B. Nicholas, Ph.D., Senior Health Physicist L. T. Ricketson, Senior Health Physicist
Approved By:	J. I. Tapia, Chief, Project Branch A

SUMMARY OF FINDINGS

South Texas Project Electric Generating Station, Units 1 and 2
NRC Inspection Report No. 50-498/00-12; 50-499/00-12

IR 05000498-00-12, IR 05000499-00-12; on 09/24-11/11/2000; STP Nuclear Operating Company; South Texas Project Electric Generating Station; Units 1 & 2. Operability Evaluations, Performance Indicator Temporary Instruction.

The inspection was conducted by resident inspectors and region-based health physics, emergency preparedness and physical security inspectors. The inspection identified one green issue associated with a noncited violation and one unresolved item. The significance of issues is indicated by their color (green, white, yellow, or red) and was determined by the significance determination process in Inspection Manual Chapter 0609.

Cornerstone: Mitigating Systems

- Green. The licensee found a tool in the Train B containment recirculation sump inside both debris screens in Unit 2. The tool was left behind during preventive maintenance inside the sump almost eight months earlier. The licensee determined that the maintenance instructions did not provide adequate foreign material control instructions, which was a violation of 10 CFR 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy

  The safety significance of this issue was very low due to this tool being considered too heavy to be ingested during containment recirculation conditions, however, the potential for other more bouyant objects being left inside the sump was credible due to poor administrative controls and worker practices. A subsequent review determined that proper foreign material exclusion controls were only used in about half the maintenance jobs performed in similar sumps during the previous two years. An object ingested from this sump could affect the containment spray pump or either safety injection pump of the associated train (Section 1R15).

Report Details

Summary of Plant Status: Units 1 and 2 operated at full power throughout the inspection period.

1. REACTOR SAFETY
Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdown

a. Inspection Scope

The inspectors performed a partial system walkdown of the Unit 1 turbine driven auxiliary feedwater pump system and the Unit 1 essential cooling water system, Trains A and C, while Train B was removed from service. The inspectors verified that the unaffected trains were in a proper standby equipment and control room lineup, that components were in good material condition, and that work on one train of equipment did not interfere with the operability of the other trains.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Fire Area Walkdowns

a. Inspection Scope

The inspectors observed the control of transient combustibles and ignition sources, the material condition and operational lineup of reactor plant active and passive fire protection systems, and the material condition and operational status of fire barriers used to prevent fire damage or fire propagation. The following plant areas were inspected:

- Unit 1 Isolation Valve Cubicle (Fire Area 51: Zones 400, 405, and 409)
- Unit 1 Electrical Auxiliary Building 60' DC Systems (Fire Area 04: Zones 46, 53, 54, and 56)
- Unit 2 Electrical Auxiliary Building 60' DC Systems (Fire Area 04: Zones 46, 53, 54, and 56)
- Unit 1 Standby Diesel Generator 12 Engine Room (Fire Area 37)
- Unit 2 Mechanical Auxiliary Building Mechanical containment Penetration Rooms (Fire Areas 03, 22 and 23)

In addition, the inspectors observed an announced fire drill involving participation of the onsite fire brigade on September 28, 2000. The fire was simulated inside the

radiologically controlled area.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

.1 Licensee's Annual Graded Operator Requalification

a. Inspection Scope

The inspectors evaluated the performance of licensed operators in mitigating the consequences of a steam generator tube rupture event utilizing the licensee's simulator facility on October 11, 2000. The inspectors observed crew performance on clarity and formality of communications, correct use of procedures, high-risk operator actions, and the oversight and direction provided by the shift supervisor. The inspectors verified the licensee's use of emergency action levels for proper emergency classification.

b. Issues and Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

.1 Maintenance Rule Functional Failure Review

a. Inspection Scope

The inspectors reviewed the licensee's maintenance rule implementation for equipment performance problems, including:

- Unit 1 Steam Generator Power Operated Relief Valve PV-7441 stroke time tested slow in the open direction (WAN 191689, Condition Report (CR) 00-15250).

- Unit 1 Component Cooling Water Valve PSV-4627 did not stroke at the correct pressure (WAN 180364, CR 00-5514).

- Replacement battery breaker failed during installation in Unit 1 Train D (CR 00-15223).

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors reviewed selected activities regarding risk evaluations and overall plant configuration control. The inspectors discussed emergent work issues with work control personnel and control room operators and reviewed the potential risk impact of these activities to verify that the work was adequately planned, controlled, and executed. The activities reviewed were associated with:

- Unit 1 extended allowed outage on Train B (Standby Diesel Generator (SDG) 12, essential cooling water, essential chilled water, and component cooling water systems)

- Unit 1 spurious engineered safety feature actuation of Containment Isolation Valve CC-MOV-0404, component cooling water return from reactor coolant pumps (CR 00-16356)

- Unit 2, feedwater drain line for Steam Generator 2B (Valve FW-0220) leaking into containment, operational impact and contingency planning for repair work

For the SDG 12 extended allowed outage, the inspectors reviewed Plant Operations Procedure 0POP01-ZO-0006, Revision 4, "SDG, ECW, or Essential Chilled Water Extended Allowed Outage Time," and Plant Surveillance Procedure 0PSP03-ZQ-0028, "Operator Logs." The inspectors verified that briefings every shift and required situational surveillances were performed and that the load dispatcher was updated on the need to avoid switchyard maintenance. The inspectors also confirmed that specified equipment in the unaffected trains were within required surveillance periodicity and that the planned maintenance did not affect any equipment required to be operable. When a containment isolation valve in the component cooling water system was found to be inoperable, the inspectors verified that operators complied with the requirements of 0POP01-ZO-0006, a procedure which was more restrictive than Technical Specification 3.6.3.

b Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions (71111.14)

a. Inspection Scope

The inspectors observed operator performance during an evolution to establish plant conditions to perform maintenance on the Feedwater Heater 15C normal level control valve. This evolution was observed because it was similar to one which was performed in Unit 2 which led to isolation of all low pressure feedwater heaters and necessitated a rapid power reduction that was documented in Inspection Report 50-498/499;99020. The inspectors reviewed the licensee's response and analysis of an unexpected system response while initially trying to place the feedwater heater level control on the high level

dump on October 30, 2000. The revised plan, issued as Condition Report Operations Evaluation 00-16732-2 was reviewed and discussed with the system engineer, the Unit 1 operations manager and the shift supervisor. The prejob briefing and performance of the evolution were then observed on November 2, 2000.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

.1 Tool Found in the Unit 2 Containment Recirculation Sump

a. Inspection Scope

The inspectors reviewed operability evaluations and supporting documents associated with the following problems in accordance with Inspection Procedure 71111, Attachment 15:

- Unit 1 containment spray system Train C contaminated system leakage test exceeded acceptance criteria for one valve (CR 00-16106).
- One truckload of standby diesel generator fuel offloaded which did not meet Technical Specification requirements for one attribute (CR 00-16621).
- Pliers found inside the Unit 2 Train B emergency core cooling system (ECCS) sump inside containment (CR 00-16008).
- Unit 1 spurious ESF actuation of Containment Isolation Valve CC-MOV-0404, component cooling water from reactor coolant pumps (CR 00-16356).
- Unit 2 Class 1E Battery Charger E2C11-1 output voltage found outside Technical Specification limits (CR 00-13591).

b. Findings

On September 29, 2000, the licensee found a pair of 12-inch pliers in the Unit 2 Train B ECCS sump inside the reactor containment building. This sump's function was to collect water during a loss of coolant accident and make it available for recirculation for long-term decay heat removal and containment spray through the ECCS suction inside the sump. To protect the high head and low head safety injection pumps and the containment spray pump from damage due to debris that could be carried into the sump, the sump was protected by two debris screens. However, the tool was found inside the screens, so no debris removal device was available to protect the pumps in this instance.

The licensee performed an operability evaluation for the pumps which would take a suction from this sump, which was documented in Condition Report Engineering Evaluation 00-16008-1. The licensee's evaluation relied on some judgement, but was

reasonable in concluding that it would have been difficult to ingest that particular tool into one of the safety related pumps due to the weight of the tool and the fact that the suction was some distance above the bottom of the sump.

The licensee determined that the tool had been left behind during Preventive Maintenance Item MM-2-SI-94005794, performed in the sump on February 7, 2000. The work package for that work included few instructions for the control of foreign material or tools and no direct reference to the foreign material exclusion program. The licensee determined that proper foreign material control practices were followed and documented correctly in only about half of the preventive maintenance jobs in these sumps over the previous two years. The licensee planned corrective actions to improve training for maintenance personnel on foreign material controls in sensitive areas, improving work instructions in all jobs using this type housekeeping zone, as well as performing inspections in the other five sumps to verify no other foreign material was present.

The inspectors evaluated the significance of this issue using the significance determination process. Foreign material which could be swept into the sump suction line could damage the affected train's high head safety injection pump, low head safety injection pump, or containment spray pump. The containment isolation function for this pipe was also considered, but determined not to be significant because the design basis of this pipe required the penetration to be open during use. While the licensee's analysis reasonably demonstrated that it would have been difficult to ingest the pliers into the pumps, the fact that the licensee's foreign material exclusion program was ineffective in preventing material from being left inside a location most sensitive to foreign material was indicative of poor implementation of the FME program. This issue was viewed as more than minor because, if left uncorrected, the same poor FME controls could result in a more significant safety concern if a different object were left behind in the sump following work inside the sump. Such an object could credibly affect the operability and function of a train of mitigation equipment if it was more bouyant. Based on these conclusions, this was determined to be a green issue affecting the mitigating systems cornerstone.

The inspectors concluded this issue was caused by using a preventive maintenance instruction, a procedure affecting quality, which was inappropriate to the circumstances and was a violation of 10 CFR Part 50, Appendix B, Criterion V. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-499/200012-01).

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors observed and/or evaluated postmaintenance testing performed on the following equipment to determine whether the tests adequately confirmed equipment operability:

- Unit 1 Essential Cooling Water Pump 1B motor replacement (WAN 182790).

- Unit 1 Packing adjustment to stop a leak in Feedwater Isolation Valve 1A (WAN 191706).

- Unit 1 Auxiliary Feedwater Pump 14 steam drain orifice leak repair (WAN 189879).

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors evaluated the adequacy of periodic testing of the following plant equipment. The review included aspects such as preconditioning, the impact of testing during plant operations, the adequacy of acceptance criteria, procedure adherence, record keeping, the restoration of standby equipment, and the effectiveness of the licensee's problem identification and correction program. The inspectors observed or reviewed the following tests:

- 0PSP10-ZG-0002, "Core Reactivity Balance," Revision 3 (Unit 2)

- 0PSP03-EW-0011, "Essential Cooling Water Pump 1B Reference Values Measurement," Revision 5 (Unit 1)

- 0PSP03-SP-0005R/S, "Solid State Protection System Logic Train R/S Functional Test," Revision 12 (Unit 1)

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the following plant temporary modification in accordance with Inspection Procedure 71111, Attachment 23, with respect to design bases documentation, approvals, and tracking. The inspectors reviewed the 10 CFR 50.59 screening and updated procedures and drawings. The inspectors also walked down the modification to assure that appropriate tags were in place:

- Temporary Modification T2-00-2130-2, Revision 0, "Install Temporary Reverse Osmosis System in Unit 2 to Remove Silica from Refueling Water Storage Tank."

During the inspection the inspectors reviewed the following related documents:

- Plant General Procedure 0PGP03-ZO-0003, Revision 18, "Temporary Modifications"

- ALARA Evaluation T2-2130-2, Revision 0
- Unreviewed Safety Question Evaluation 98-0014, Revision 2
- Unreviewed Safety Question Evaluation 98-0023, Revision 0
- Condition Report Engineering Evaluation 95-12322-15, Revisions 0 and 1, “Rigging Plan”
- 0TOP02-FC-0003, Revision 11, “Boric Acid Recovery System Operations”

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation (71114.01)

a. Inspection Scope

The inspectors reviewed the objectives and scenario for the 2000 exercise to determine if the exercise would acceptably test major elements of the emergency plan. The scenario included equipment and electrical power failures, a loss of reactor coolant, core damage and a radiological release to demonstrate the licensee's capabilities to implement the emergency plan.

The inspectors evaluated exercise performance by focusing on the risk-significant activities of classification, notification, protective action recommendations, and assessment of offsite dose consequences in the following emergency response facilities:

- Simulator Control Room
- Technical Support Center
- Operations Support Center
- Emergency Operations Facility

The inspectors also assessed personnel recognition of abnormal plant conditions, the transfer of emergency responsibilities between facilities, communications, and the overall implementation of the emergency plan.

The inspectors attended the postexercise critiques in each of the above facilities to evaluate the initial licensee self-assessment of exercise performance. The inspectors also attended a subsequent presentation of critique items to plant management.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspectors reviewed Revision 19 to the South Texas Project Emergency Plan to determine if the revised plan met NRC requirements. The inspectors reviewed the licensee's 50.54(q) review documentation associated with this change.

b. Findings

No findings of significance were identified.

2. Radiation Safety

Cornerstone: Occupational Radiation Safety

2OS3 Radiation Monitoring Instrumentation (71121.03)

a. Inspection Scope

The inspectors interviewed cognizant licensee personnel and reviewed the following items to ensure that the licensee's activities conformed to regulatory requirements:

- Calibration, operability, and alarm setpoint, when applicable, of portable radiation detection instrumentation, area radiation monitors, continuous air monitors, containment high range monitors, main steam line monitors, whole-body counting equipment, electronic alarming dosimeters, and personnel contamination monitors.
- Health physics instrumentation program Self Assessment 00-10030.
- Calibration expiration and source response check currency on radiation detection instruments staged for use.
- Calibration source accountability and traceability.
- The licensee's capability for refilling and transporting self-contained breathing apparatus air bottles to and from the control room and operations support center during emergency conditions.
- Control room operator and emergency response personnel training and qualifications for use of self-contained breathing apparatus.
- The status and surveillance records of self-contained breathing apparatuses staged and ready for use in the plant.
- Selected exposure-significant radiological incidents that involved radiation monitoring instrument deficiencies or self-contained breathing apparatuses since the last

inspection in this area.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS3 Radiological Environmental Monitoring Program and Radioactive Material Control Program (71122.03)

a. Inspection Scope

The inspectors interviewed members of the radiation protection staff responsible for implementing the radiological environmental and meteorological monitoring programs and inspected 10 environmental monitoring stations. These stations included airborne, surface water, broad leaf vegetation, and thermoluminescent dosimeter sample locations. The inspectors observed the collection and preparation for analysis of airborne particulate and charcoal samples and broad leaf vegetation samples from four sample locations within 2 miles from the plant and the control sample location approximately 10 miles from the plant. The inspectors visited and inspected the primary and backup meteorological towers and verified the meteorological instrument data displays in the Unit 1 control room and the emergency offsite facility. The inspectors also observed the licensee survey materials for release from the radiologically controlled areas in Units 1 and 2. The following items were reviewed and compared with regulatory requirements:

- Implementing procedures for the radiological environmental monitoring program as described in the Offsite Dose Calculation Manual.

- Number and location descriptions of the environmental sampling stations to determine that the environmental sampling program was representative of the station's effluent release pathways.

- Environmental sampling schedules for 1999 and 2000, sample collection and analysis data records to determine any missed samples, inoperable samplers, and lost thermoluminescent dosimeters.

- Environmental sample analytical results to determine proper analysis detection sensitivities and any positive sample analysis results.

- 1998 and 1999 annual land use census reports and any resulting changes to the radiological environmental monitoring program.

- Calibration and maintenance records for six air samplers.

- The environmental laboratory's performance in the interlaboratory comparison program for 1998 and 1999.

- Meteorological monitoring instrumentation calibration procedures and records.
- Meteorological instrument operability, reliability, and annual meteorological data recovery.
- 1998 and 1999 Annual Environmental Operating Reports.
- 1998 and 1999 Annual Radioactive Effluent Release Reports.
- Offsite Dose Calculation Manual, Revision 10, January 1, 2000.
- Quality Assurance Audit 98-16 (RE), “Radiological Environmental Monitoring Program,” performed November 16 through December 10, 1998.
- Radiation Protection Department Internal Assessment and Annual Review of the Radiological Environmental Monitoring Program including environmental laboratory quality control activities conducted in December 1999.
- Summary of condition reports related to the radiological environmental monitoring and meteorological monitoring programs written since the previous inspection in February 1999.
- Procedures, methods, and instruments used to survey, control, and release materials from the radiologically controlled areas.
- Calibration procedures and records for instruments used to perform material release radiological surveys.
- Detection sensitivities of radiation survey instruments used for contamination measurements prior to release of materials from the radiologically controlled areas including screening levels for commonly found site-specific surface contamination radionuclides.
- Criteria used for the unrestricted release of material from the radiologically controlled areas.

b. Findings

No findings of significance were identified.

4 OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verifications

.1 Performance Indicator Data Collecting and Reporting Process Review (Temporary Instruction 2515/144)

a. Inspection Scope

The inspectors reviewed the licensee's performance indicator (PI) program to determine whether the licensee was appropriately implementing the guidance contained in Nuclear Energy Institute (NEI) 99-02, Revision 0, "Regulatory Assessment Performance Indicator Guidelines." In accordance with Temporary Instruction 2515/144, the inspectors reviewed the licensee's data collection and reporting for the following indicators:

- Initiating Events - Unplanned power changes per 7000 critical hours
- Mitigating Systems - Safety system unavailability for high pressure safety injection, auxiliary feedwater, emergency a.c. power, and residual heat removal, as well as safety system functional failures
- Emergency Preparedness - Emergency response organization drill participation
- Occupational Radiation Safety - Occupational exposure control effectiveness
- Physical Protection - Protected area security equipment performance index

The inspectors reviewed the following station procedures and discussed the implementation of the process with key personnel:

- 0PGP05-ZN-0007, Revision 0, "Preparation and Submittal of NRC Performance Indicators"
- 0PGP05-ZV-0013, Revision 0, "Performance Indicator Tracking Guide"
- Performance Indicator Instruction Guideline Initiating Events Cornerstone, Revision 0
- Performance Indicator Instruction Guideline Mitigating Systems Cornerstone Safety Systems Unavailability, Revision 0
- Performance Indicator Instruction Guideline Mitigating Systems Cornerstone Safety Systems Functional Failures, Revision 0
- Desktop Instruction for Calculating Security Equipment Performance Indicator Data, Revision 0
- Radiation Protection Department Conduct of Operations, Chapter 9, "Condition

Reporting," Revision 0

b. Findings

The licensee's performance indicator reporting program generally complied with the NEI 99-02 guidance. The inspectors determined that the licensee's procedures for implementing the performance indicator reporting requirements were generally good. Desktop instructions for each indicator provided adequate instructions for data collection, calculation, and review before reporting the results to the NRC. However, many of these desktop instructions did not incorporate information from applicable frequently asked questions.

The licensee was attempting to take a conservative approach to reporting performance indicator data. The inspectors identified that some NEI 99-02 guidance that was intended to avoid reporting certain types of safety system unavailability were not incorporated in the licensee's program. This practice impacted two areas: overhaul hours and redundant maintenance trains. The licensee had performed some on line maintenance that met the definition of overhaul, but this time was not being deducted from planned unavailability as specified in NEI 99-02. In addition, the plants' unique multitrain design was not evaluated to determine if one train of certain monitored systems could be considered to be a redundant maintenance train and thus preclude counting most of the planned unavailability time. By unnecessarily reporting these safety system unavailability times, a potential existed to cause this indicator to change color and require increased regulatory action when this was not intended.

The inspectors also identified that the licensee was using safety system unavailability data from their on line Risk Assessment Calculator program (RAsCal). However, the licensee had not reviewed the RAsCal user instructions to ensure that the data recording instructions complied with NEI 99-02 guidance. Condition Report 00-17218 was written to evaluate any differences in the respective criteria.

Residual Heat Removal Function Not Properly Monitored

The inspectors identified that the licensee's PI program did not properly monitor or report safety system unavailability for the residual heat removal (RHR) function. NEI 99-02 specified that this performance indicator monitored two functions, postaccident recirculation and shutdown cooling. At South Texas Project, the former function was performed by the low pressure safety injection system and the latter function was performed by the RHR system. The inspectors determined that the licensee was reporting only the unavailability of the RHR system, so the recirculation function was not being monitored or reported. As a result of this finding, the licensee planned to amend their monitoring practices and submit corrected PI data. This issue was being tracked in the licensee's corrective action program under Condition Report 00-16019.

Failure to report accurate performance indicator data was a violation of 10 CFR 50.9. This will be tracked as an unresolved item pending the licensee completing a recalculation of this PI and inspector review to determine the significance of the incorrect

information (URI 498/499;200012-02).

.2 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors reviewed the following performance indicator for the period from the first through third quarters of 2000 to assess the accuracy and completeness of the indicator reporting. The inspectors used NEI 99-02 as guidance for this inspection.

Mitigating Systems - Safety System Functional Failures

The inspectors also reviewed Licensee Event Report 498/00-006 to verify the licensee's conclusion that the event did not involve a safety system functional failure.

b. Findings

No findings of significance were identified.

.3 Drill and Exercise Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors verified a sample of the licensee's reported results for the drill and exercise performance indicator by reviewing records for licensee drills and simulator training scenarios conducted during the first three calendar quarters of 2000.

b. Findings

No findings of significance were identified.

.4 Emergency Response Organization Readiness Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors verified the licensee's reported results for the emergency response organization drill participation performance indicator by reviewing the emergency response organization database tracking drill and exercise participation within the previous eight calendar quarters. The inspectors reviewed drill participation attendance records for a sample of 26 emergency responders to determine if database records for these responders were accurate.

b. Findings

No findings of significance were identified.

.5 Alert and Notification System Reliability Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors verified the licensee's reported results for the alert and notification system reliability performance indicator by reviewing off site siren test results performed in the first three calendar quarters of 2000.

b. Findings

No findings of significance were identified.

4OA5 Other

.1 (Closed) Inspection Followup Item 50-498;499/98013-01: This issue was an exercise weakness for failure to recognize the need to make protective action recommendations beyond 10 miles. The inspectors reviewed changes made to the emergency plan implementing procedures to correct the exercise weakness observed during the 1998 biennial exercise. The licensee's corrective actions were adequate.

4OA6 Meetings, including Exit

Exit Meeting Summary

On September 28, 2000, the inspectors presented the environmental inspection results to Mr. W. Cottle and other members of licensee management at the conclusion of the inspection. The licensee acknowledged the findings presented.

On October 20, 2000, the inspectors conducted a meeting with Ms. F. Mangan and other members of plant management to present the emergency preparedness inspection results. The licensee acknowledged the findings presented.

On October 25, 2000, the inspectors held a conference call with plant licensing and emergency preparedness staff to discuss the results of in-office record review conducted after the inspection. The licensee acknowledged the findings presented.

On November 2, 2000, the inspectors presented the radiation monitoring instrumentation inspection results to Mr. G. Powell, Manager, Health Physics, and other members of licensee management. The licensee acknowledged the findings presented.

On November 9, 2000, the inspectors presented the resident inspection results to Mr. W. Cottle and other members of licensee management at an exit meeting. The licensee acknowledged the findings presented.

At each meeting, the inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT 1

Supplemental Information

PARTIAL LIST OF PERSONS CONTACTED

Licensee

A. Barnett, System Engineer
T. Bowman, Division Manager, Operations
W. Bullard, Supervisor, Health Physics
S. Citzler, Chemist/Chemistry
K. Coates, Manager Maintenance
W. Cottle, President and Chief Executive Officer
W. Dowdy, Manager, Generation Support
L. Earls, Health Physicist
R. Gangluff, Manager, Chemistry
S. Head, Supervisor, Licensing
A. Kent, Manager, Testing/Programs
F. Mangan, Vice President, Business Services
M. McBurnette, Director, Quality and Licensing
W. Mookhoek, Licensing Engineer
J. Morris, Licensing Engineer
M. Murry, Supervisor, System Engineering
G. Parkey, Manager, Plant General
G. Powell, Manager, Health Physics
F. Puleo, Supervisor, Emergency Preparedness
P. Serra, Manager, Plant Protection
J. Sheppard, Vice President, Engineering and Technical Services
J. Sherwood, Supervisor, Health Physics
M. Smith, Manager, Plant Support Quality
D. Towler, Manager, Operations Quality

NRC

D. Hickman, Inspection Program Branch, NRR

Other

C. Martinez, Jr. Mayor, Bay City
J. Mitchell, Sheriff, Matagorda County

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-499/0012-01	NCV	Preventive maintenance instruction for ECCS sump work that contained inadequate FME instructions, a violation of 10 CFR 50, Appendix B, Criterion V (Section 1R15).

50-498;499/0012-01	URI	RHR unavailability performance indicator reporting did not include postaccident recirculation function. Review revised report (Section 4OA1.1).

Closed

50-499/0012-01	NCV	Preventive maintenance instruction for ECCS sump work that contained inadequate FME instructions, a violation of 10 CFR 50, Appendix B, Criterion V (Section 1R15).
50-498;499/98013-01	IFI	Exercise weakness - Failure to recognize the need to make protective action recommendations beyond 10 miles (Section 4OA5.1).

Discussed

50-498/00-0006	LER	Two trains of essential chilled water system inoperable (Section 4OA1.2).

LIST OF ACRONYMS USED

ALARA	as low as reasonably achievable
CFR	Code of Federal Regulations
CR	condition report
ECCS	emergency core cooling systems
FME	foreign material exclusion
IFI	Inspection Follow-up Item
LER	Licensee Event Report
NCV	noncited violation
NEI	Nuclear Energy Institute
PI	performance indicator
RHR	residual heat removal
SDG	standby diesel generator
UFSAR	Updated Safety Analysis Report
URI	Unresolved Item

DOCUMENTS REVIEWED

The following documents were selected and reviewed by the inspectors to accomplish the objectives and scope of the inspection and to support any findings:

Emergency Plan Implementing Procedures

Procedure Number	Title	Revision
0ERP01-ZV-IN01	Emergency Classification	4
0ERP01-ZV-IN07	Offsite Protective Action Recommendations	6

0ERP01-ZV-TS01	TSC Manager	8
0ERP01-ZV-EF01	EOF Director	10
0ERP01-ZV-EF03	Radiological Director	5
0ERP01-ZV-OS01	OSC Coordinator	2
0ERP01-ZV-TP01	Offsite Dose Calculations	10

Radiation Monitoring Related Procedures

Procedure Number	Title	Revision
0PTP04-ZC-0001	Radiological Instrumentation Calibration Program	6
0PTP04-ZC-0043	Calibration of Radiological Meters and Ion Chambers	7
0PTP04-ZC-0012	Calibration of Alarm Dosimeters	8
0PRP02-ZR-0005	Operation of the Canberra Counting System	7
0PRP05-ZI-0078	Operation of Portable Survey Instruments	4
0PRP05-ZR-0010	Health Physics Instrumentation Program	9
0PRP06-ZR-0016	Charging Breathing Air Cylinders	3
0PRP06-ZR-0005	Maintenance, Inspection, and Storage of Respiratory Protection Equipment	6
0POP04-ZO-0006	Accident at Nearby Chemical Plant	2
PMI-IC-RA-8300A	Three Channel Area Monitor	0

Other Documents

South Texas Project Electric Generating Station Emergency Plan, Revision 19

Response to Emergency Preparedness Weakness (50-498 499/98013-01), dated September 14, 1998

Emergency Preparedness Drill Critiques from August 6, 1998 to August 9, 2000

2000 Graded Emergency Response Exercise Objectives, dated July 19, 2000

2000 Graded Emergency Preparedness Exercise Scenario, dated August 16, 2000

NRC, Office of Investigation Case No. 4-2000-026, dated October 25, 2000

NRC'S REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
•Initiating Events	•Occupational	•Physical Protection
•Mitigating Systems	•Public	
•Barrier Integrity		
•Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC used two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, or RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.