



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

January 23, 2001

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 REPORT 50-498/00-13; 50-499/00-13**

Dear Mr. Cottle:

On December 30, 2000, the NRC completed an inspection at your South Texas Project Electric Generating Station, Units 1 and 2, facility. The enclosed report documents the inspection findings which were discussed on November 6, November 16, and December 7, 2000, and January 4, 2001, with Mr. Cloninger and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. 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 a violation is associated with this issue. This violation is being treated as a noncited violation (NCV), consistent with Section VI.A.1 of the NRC Enforcement Policy. This NCV is described in the subject inspection report. If you contest the violation or significance of the 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; 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.

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,

***Elmo E. Collins for***

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

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

Enclosure:  
NRC Inspection Report  
50-498/00-13; 50-499/00-13

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RITS Coordinator (**NBH**)

Only inspection reports to the following:

Scott Morris (**SAM1**)

NRR Event Tracking System (**IPAS**)

STP Site Secretary (**LAR**)

Dale Thatcher (**DFT**)

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RIV:RI:DRP/A	SRI:DRP/A	C:DRS/PSB	C:DRP/A	
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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket Nos.: 50-498  
50-499

License Nos.: NPF-76  
NPF-80

Report No.: 50-498/00-13  
50-499/00-13

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: November 12 through December 30, 2000

Inspectors: N. F. O'Keefe, Senior Resident Inspector  
G. L. Guerra, Resident Inspector  
J. B. Nicholas, Ph.D., Senior Health Physicist  
J. S. Dodson, Health Physicist  
D. W. Schaefer, Physical Security Inspector

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 50-498/00-13; 50-499/00-13

IR 05000498-00-13, IR 05000499-00-13; on 11/12-12/30/2000; STP Nuclear Operating Company; South Texas Project Electric Generating Station; Units 1 & 2. Integrated Resident and Regional Report; cross-cutting issues.

The inspection was conducted by Health Physics, Physical Protection, and Resident inspectors. The inspection identified one Green finding, which was a noncited violation. The significance of the finding is indicated by its color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "no color" or by the severity level of the applicable violation.

#### Cross-cutting Issues: Human Performance

- Green. During a single shift, Unit 1 operators improperly executed three separate tagging instructions. In the first example, the wrong switch was opened, tagged, and verified. In the second example, the wrong train's standby diesel generator was briefly rendered inoperable after the intended diesel was already inoperable. In the third example, an essential cooling water pump breaker was tagged "off," but the control fuses were not placed in the required off position. Failure to follow tagging instructions required by Technical Specification 6.8.1.a and Regulatory Guide 1.33 resulted in three examples of a violation, which will not be cited consistent with Section VI.A.1 of the NRC Enforcement Policy. This was determined to be a cross-cutting issue for human performance because the three examples were linked by having a common cause of inattention to detail and lack of self-checking.

The safety significance of the wrong train's standby diesel generator being rendered inoperable was very low because it was quickly recognized and corrected. The safety significance of the other two examples was very low because the tagging errors did not affect operable safety equipment, but was more than minor because they were precursors to a more significant event (Section 4OA4).

## Report Details

Summary of Plant Status: Unit 1 began the inspection at full power. On December 9, 2000, power was reduced to 95 percent for repairs to a feedwater low pressure heater drip pump and returned to full power shortly after. On December 12, operators performed a manual reactor trip in response to a malfunction of the turbine control system which caused the turbine governor valves to close. The plant was restarted on December 20 and returned to full power, where the unit remained for the rest of the inspection period.

Unit 2 operated at essentially 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 essential chilled water system, Trains B and C, while Train A was removed from service. The inspectors used Plant Operating Procedures OPOP02-CH-0001, "Essential Chilled Water System," and OPOP02-CH-0005, "Essential Chiller Operation," and system drawings to verify that the unaffected trains were in a proper standby equipment and control room line up. The inspectors verified that components were in good material condition.

###### 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 line up 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 Mechanical auxiliary building solid radwaste areas (Fire Zone Z117)
- Unit 2 Electrical auxiliary building 10 and 21 foot elevation Train A cable spreading rooms (Fire Zones Z003, Z006, Z010, Z016, Z026)
- Unit 1 Reactor containment building (Fire Zone Z202)

b. 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 maintenance history for the essential chillers in both units and how the chillers were performing within the scope of the maintenance rule during the period 1999-2000. Some individual failures were discussed with the system engineer and the maintenance rule coordinator. The classification of failures and system/train performance criteria were reviewed for reasonableness. The inspectors also reviewed the station practice of sometimes responding to low chiller oil level by requesting maintenance for the chiller, and sometimes restoring oil level using an operating procedure. The following specific equipment performance problems were reviewed in detail:

- Essential Chiller 12B tripped on low oil pressure (Work Authorization Number (WAN) 195552, Condition Report (CR) 00-18228)
- Essential Chiller 11A breaker failed to open during a simulated loss of offsite power test (WAN 159002, CR 99-5632)
- Essential Chiller 21C oil level draining below minimum level (WAN 164413, CR 99-9988)
- Essential Chiller 12A hot gas bypass valve failed to open when securing unit (WAN 165836, CR 99-11217).
- Essential Chiller 12B tripped on low oil pressure (WAN 168514, CR 99-13390).

The inspectors also reviewed the failure history of safety-related chillers over the past two years. This review included a determination if the licensee's practice of performing corrective maintenance using preventative maintenance work documents hindered the engineering review of equipment failures for maintenance rule failure classification.

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 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) Feedwater Heater Drip Pump 11 maintenance
- (Unit 1) Essential Chiller 12B trip on low lube oil pressure
- (Unit 2) End of Core Life Moderator Temperature Coefficient Testing

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

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

- (Unit 1) Chilled water throttle valve for Essential Chiller 12C found out of position in the nonconservative direction while Train A was out of service (CR 00-17950)
- (Unit 2) Solid State Protection System (SSPS) Actuation Train C status test indication light inoperable (CR 00-13604)
- (Unit 1) Wrong component installed in Fire Detection Panel ZLP905F which disabled alarm transmission to the control room (CR 00-18144)
- (Unit 2) Essential Chiller 22A had less than the required cooling water flow rate in cold weather alignment (CR 00-18402)

For the low cooling water flow rate to Essential Chiller 22A, the inspectors verified that the licensee restored the flow balance between the two Train C chillers, and that the resulting flow rates were within design values to support the safety function of the system. The inspectors also reviewed the as-found flow rate data and compared it to design values to verify the licensee's determination that the system was operable in the as-found condition.

b. Findings

No findings of significance were identified.

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) Class 1E Battery Charger E1C11-2 load verification (WAN 157582)
- (Unit 1) Generator Stator Cooling Water Pump #12 replacement (WAN 196274)
- (Unit 2) Solid State Protection System Actuation Train C slave relay test after temporary modification installation (WAN 189930)

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 important nuclear plant equipment, including aspects such as preconditioning, the impact of testing during plant operations, the adequacy of acceptance criteria including test frequency and test equipment accuracy, range and calibration, 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:

- (Unit 1) 0PSP03-SP-0007C, Revision 7 and 8, "SSPS Actuation Train C Master Relay Test"
- (Unit 2) 0PSP03-DG-0003, Revision 17, "Standby Diesel Generator 23 Operability Test," using quarterly slave relay fast start
- (Unit 2) 0PSP03-RS-0001, Revision 19, "Monthly Control Rod Operability Test"

The inspectors observed during the performance of the Solid State Protection System Actuation Train C surveillance test that a systems status light intermittently failed. The inspectors reviewed the procedure change process and the technical basis for the alternate acceptance criteria used to assure system operability.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the following plant temporary modifications 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, updated procedures and drawings, and any associated unreviewed safety question evaluations. Where possible the inspectors also walked down or observed the installation of the modifications:

- (Unit 1) TL1-00-18465-3 Seal injection of Pressurizer Level Transmitter LT-0467 instrument line leak
- (Unit 2) T2-00-13604-5 Test circuit light jumper on Solid State Protection System Actuation Train C and Unreviewed Safety Question Evaluation 00-13604-6

b. Findings

No findings of significance were identified.

**2. RADIATION SAFETY**  
**Cornerstone: Occupational Radiation Safety**

2OS2 ALARA Planning and Controls (71121.02)

a. Inspection Scope

The inspector interviewed radiation workers and radiation protection personnel throughout the radiologically controlled area and conducted independent radiation surveys of selected work areas. The following items were reviewed to determine whether the licensee had an adequate program to maintain occupational exposure as low as is reasonably achievable.

- ALARA program procedures
- Radiation Protection Quality Evaluation Audit 99-01 and ALARA Planning and Work Control Self-Assessment conducted September 11-28, 2000
- Radiological Controls Quarterly Reports dated March 15, 1999, July 13, 1999, October 11, 1999, January 11, 2000, April 13, 2000, and July 18, 2000
- Radiation Protection Quality Monitoring Reports MN-99-2-1158, MN-99-0-1186, MN-99-2-1202, MN-99-2-1224, MN-99-2-1281, MN-00-1-0128, MN-00-1-0273, and MN-00-1-0362
- Processes used to estimate and track exposures

- Plant collective exposure history for the past 3 years, current exposure trends, and 3-year rolling average dose information
- Four ALARA work activity packages from outage activities which resulted in some of the highest personnel collective exposures during the inspection period (Steam Generator Replacement Feedwater Baseplate Modification, Steam Generator Primary Side Inspections - Eddy Current Testing, Steam Generator Replacement - Sever/Modify/Reinstall Secondary Piping Systems, and Steam Generator Replacement - Remove/Reinstall/Modify Upper and Lower Lateral Restraints)
- Hot spot tracking and reduction program
- Use of engineering controls to achieve dose reductions
- Individual exposures of selected work groups (mechanical maintenance, electrical maintenance, instrument and controls, operations, and health physics)
- Plant related source-term data, including source-term control strategy
- Radiological work planning
- Job site inspection and ALARA control for the Unit 1 fuel reconstitution
- Declared pregnant worker dose monitoring controls
- A summary of ALARA related condition reports written between April 1, 1999, and November 9, 2000. Eleven of these condition reports were reviewed in detail (99-5289, 99-5800, 99-6001, 99-6038, 99-6058, 99-12513, 99-12602, 99-14939, 99-15218, 00-3639, and 00-12794).

b. Findings

No findings of significance were identified.

**Cornerstone: Public Radiation Safety**

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

a. Inspection Scope

The inspector interviewed cognizant personnel and walked down the major components of the gaseous and liquid release systems to observe ongoing activities, equipment material condition, and the system configuration as compared to the description in the Updated Final Safety Analysis Report. The following items were reviewed and compared with regulatory requirements:

- 1999 Radiological Effluent Release Report
- Changes to the Offsite Dose Calculation Manual and to the radioactive waste system design and operation
- Anomalous results, if any, reported in the Radiological Effluent Release Report
- Effluent radiological occurrence performance indicator incidents
- Sample collection and analysis of the Unit 1 plant vent gaseous effluent release point
- Selected radioactive effluent release permits and associated projected doses to members of the public
- Compensatory sampling and radiological analyses conducted when effluent monitors were declared out of service
- Monthly, quarterly, and annual dose calculations
- Air cleaning system surveillance test results (in-place adsorber and HEPA leak tests) for Units 1 and 2, control rooms, and fuel buildings
- Stack and vent flow rate surveillance test results
- Records of effluent radiation monitor and flow measurement instrument calibrations performed since the last inspection
- Effluent radiation monitor alarm setpoint values
- Counting room instrumentation calibration and quality control records
- Audit 00-02-OD on the radioactive effluent treatment and monitoring program
- Selected condition reports related to the radioactive effluent treatment and monitoring program

b. Findings

No findings of significance were identified.

**3. SAFEGUARDS**  
**Cornerstones: Physical Protection**

3PP1 Access Authorization (71130.01)

.1 Access Authorization Program

a. Inspection Scope

The inspector:

- reviewed licensee event reports and safeguards event logs to identify problems in the access authorization program
- reviewed procedures, audits, and self-assessments of the following programs/areas: behavior observation, access authorization, fitness-for-duty, supervisor and escort training, and requalification training
- interviewed six individuals who had escorted visitors into the protected and/or vital areas, and six supervisors to determine their knowledge and understanding of their responsibilities in the behavior observation program

b. Findings

No findings of significance were identified.

- .2 (Closed) Unresolved Item 50-498;499/0003-02: An unresolved item was identified for failure to properly conduct an employment check for a contract employee granted "temporary" unescorted access authorization, as required by paragraph 4.1.2 of the physical security plan. On multiple occasions, the licensee's contractor obtained employment history information from personal references, rather than from previous employers. The NRC determined that there was no violation of NRC requirements.

3PP2 Access Control (71130.02)

a. Inspection Scope

The inspector:

- reviewed licensee event reports and safeguards event logs to identify problems with access control equipment
- reviewed procedures and audits for testing and maintenance of access control equipment and for granting and revoking unescorted access to protected and vital areas

- interviewed security personnel concerning the proper operation of the explosive and metal detectors, x-ray devices, and key card readers
- observed licensee testing of access control equipment and the ability of security personnel to control personnel, packages, and vehicles entering the protected area
- reviewed procedures to verify that a program was in place for controlling and accounting for hard keys to vital areas
- reviewed the licensee's process for granting access to vital equipment and vital areas to authorized personnel having a need for access
- reviewed condition reports, licensee event reports, safeguards event logs, audits, selected security event reports, and self-assessment for the licensee's access control program in order to identify the licensee's ability to identify and resolve problems with the access control program
- interviewed key security department and plant protection personnel to determine their knowledge and use of the corrective action reports and resolution of problems regarding repair of security equipment

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES (OA)**

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors reviewed data reported by the licensee for the barrier integrity - reactor coolant system leakage performance indicator for the period from March through September, 2000, in order to assess the accuracy and completeness. The inspectors used Nuclear Energy Institute (NEI) Guidance NEI 99-02, "Performance Indicator Verification," Revision 0, as guidance for this inspection.

b. Findings

No findings of significance were identified.

40A4 Cross-cutting Issues

.1 Lack of Self-checking Resulted in Three Tagging Errors with Two Standby Diesel Generators (SDGs) Being Inoperable Simultaneously

a. Inspection Scope (71153)

The inspectors conducted an event followup on three licensee-identified tagging errors related to accident mitigation equipment. Condition Reports 00-17211, 00-17214, 00-17282, and 00-17237 were reviewed, along with the results of the licensee's combined event review. The events were discussed with the shift supervisor and the operations manager.

b. Findings

On November 12-13, 2000, three tagging errors occurred on a single shift while operators attempted to remove equipment from service for planned maintenance.

- First, two nonlicensed operators in Unit 1 were assigned to open and tag Switch 4 in Distribution Panel 235, but instead opened, tagged, and verified Switch 5. This resulted in deenergizing a sump level probe associated with the Train C safety injection pump room instead of removing control power to Essential Chiller 12C.
- Second, two nonlicensed operators in Unit 1 were assigned to hang part of a tagout intended to provide isolation for planned work on SDG 13. The system had been declared inoperable, and earlier tags had rendered that system nonfunctional. The operators were instructed to pull fuses and rack out the SDG 13 output breaker. However, the operators went to the output breaker for SDG 12 and pulled fuses. When this action was annunciated in the control room, control room operators recognized the error and directed the fuses be restored. Two SDGs were inoperable for 2 minutes as a result of this event.
- Third, a nonlicensed operator was assigned to place Essential Cooling Water Pump 1C out of service by racking out the breaker, placing the control fuses in the "off" position, and tagging them in those positions. However, he failed to reposition the control fuses.

The first and third events presented potential personnel safety hazards because the intended equipment was not properly removed from service. The second event had credible safety significance because required mitigation equipment was unintentionally rendered inoperable when redundant equipment was already inoperable. At the time of the event, all offsite power sources were available as the preferred source of power to safety equipment. The remaining operable SDG would have been adequate to satisfy station blackout requirements. Additionally, the emergency transformer was available as a separate backup power source during a station blackout. At the request of the inspectors, the licensee calculated the change in risk associated with this event. The change in core damage frequency ( $\Delta$ CDF) was calculated to be 2 E-9/yr. The



inspectors noted that Technical Specification 3.8.1.1, Action (f), permitted the licensee to have two of the three SDGs inoperable simultaneously for 24 hours, so the limiting condition for operation remained satisfied.

The licensee determined that the common cause of these human performance errors was inattention to detail and lack of self-checking. The inspectors noted that, if uncorrected, such behavior could cause or increase the frequency of initiating events or affect the operability, availability, reliability, or function of accident mitigation equipment. As a result, this was considered to be a cross-cutting issue.

The significance of the behavior that led to these errors was assessed. Two of the errors (first and third examples) were considered to be precursors to more significant events, while the second example was an event with a credible impact on safety, since accident mitigation equipment was unintentionally rendered inoperable. This overall issue was therefore determined to have very low safety significance and to be a Green issue.

Technical Specification 6.8.1.a and Regulatory Guide 1.33, Appendix A, require procedures for equipment control (e.g., locking and tagging). Plant general Procedure OPGP03-ZO-ECO1, Revision 10, "Equipment Clearance Orders," Section 5.6, required personnel executing equipment clearance orders (i.e., tagging activities) to verify that the tags agree with the component label and to then align the component to the position specified. Contrary to this requirement, operators mispositioned three electrical components during a single shift on November 12-13 while attempting to execute tagging instructions. This issue was considered to be three examples of a violation, which were licensee-identified and corrected, and will not be cited consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 498/0013-01).

#### 4OA6 Management Meetings

##### .1 Exit Meeting Summary

The results of the in-office followup inspection for access authorization were presented to Mr. W. Mookhoek, Licensing Engineer, at the conclusion of the inspection on November 6, 2000.

The results of the ALARA inspection were presented to Mr. W. Dowdy, Manager, Generation Support, and other members of licensee management, at the conclusion of the inspection on November 16, 2000.

The results of the physical security inspection were presented to Mr. Paul Serra, Manager, Plant Protection, and other members of licensee management, at the conclusion of the inspection on December 7, 2000.

The results of the radiological effluents inspection were presented to Mr. P. Serra, Manager, Plant Protection, and other members of licensee management, at the conclusion of the inspection on December 7, 2000.

The results of the resident inspection were presented to Mr. T. Cloninger, Vice President for Generation, and other members of licensee management, on January 4, 2001.

In each case, the licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

#### 4OA7 Licensee Identified Violations

The following findings of very low safety significance were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as noncited violations (NCV).

#### NCV Tracking Number

#### Requirement Licensee Failed to Meet

50-499/0013-02

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

50-499/0013-03

Technical Specification 6.8.1 requires procedures for the radiation work permit system. Form 1 of Procedure OPRP0-ZR-001, "Radiation Work Permits," Revision 8, states, in part, that an individual shall read, understand, and comply with the requirements of the radiation work permit. On November 4, 1999, an individual entered a high radiation area while logged in on a radiation work permit which did not allow entrance into a high radiation area as described in the licensee's corrective action program, reference CR 99-15678.

## ATTACHMENT 1

### Supplemental Information

#### PARTIAL LIST OF PERSONS CONTACTED

##### Licensee

R. Aguilera, Health Physicist  
P. Arrington, Licensing Specialist  
B. Bullard, Supervising Health Physicist  
T. Cloninger, Vice President, Generation  
L. DeLa Garza, Senior Reactor Operator, Quality  
W. Dowdy, Manager, Generation Support  
R. Gangluff, Manager, Chemistry  
M. Hall, Acting Security Superintendent, Security Department  
M. Woodard-Hall, Supervisor, Security Administration  
E. Halpin, Manager, Operations  
S. Head, Supervisor, Licensing  
J. Johnson, Manager, Engineering Quality  
C. Johnson, Director, Oversight to South Texas Project  
T. Jordon, Manager, Engineering  
A. Kent, Manager, Testing/Programs  
A. Khosla, Liaison Co-Owner  
D. Leazar, Manager, Nuclear Fuel/Analysis  
F. Mangan, Vice President, Business Services  
L. Matula, Supervisor, Health Services  
M. McBurnette, Director, Quality and Licensing  
J. Meyers, Health Physics Specialist  
W. Mookhoek, Licensing Engineer  
G. Powell, Manager, Health Physics  
D. Rencurrel, Manager, Modifications and Design Basis Engineering  
P. Serra, Manager, Plant Protection Department  
J. Sheppard, Vice President, Engineering and Technical Services  
D. Wiegand, Fire Protection Engineer  
F. Wiens, Manager, Maintenance Support Services

##### Contractor

F. Durham, Project Manger, Protection Technology Inc.

### ITEMS OPENED AND CLOSED

#### Opened

50-498/0013-01	NCV	Three examples of failure to follow procedure when tagging equipment out of service (Section 4OA4)
50-499/0013-02	NCV	Failure to wear required dosimetry when entering a high radiation area (Section 4OA7)
50-499/0013-03	NCV	Failure to follow radiation work permit requirements (Section 4OA7)

#### Closed

50-498/0013-01	NCV	Three examples of failure to follow procedure when tagging equipment out of service (Section 4OA4)
50-499/0013-02	NCV	Failure to wear required dosimetry when entering a high radiation area (Section 4OA7)
50-499/0013-03	NCV	Failure to follow radiation work permit requirements (Section 4OA7)
50-498;499/0003-02	URI	Failure to properly conduct an employment check for a contract employee granted "temporary" unescorted access authorization (Section 3PP1)

#### Discussed

### LIST OF ACRONYMS USED

ALARA	as low as reasonably achievable
CFR	Code of Federal Regulations
CR	condition report
IFI	inspection followup item
LER	licensee event report
NCV	noncited violation
NEI	Nuclear Energy Institute
RCB	reactor containment building
SDG	standby diesel generator
SSPS	solid state protection system
VIO	violation

### 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:

### **Physical Security Inspection**

Safeguards Event Logs from September 1 through December 3, 2000

Condition Record Reports Numbers 00-15423, 00-15904, 00-16431, 00-16982, and 00-17591

Procedure OPGP03-ZA-0107, "Security of the South Texas Project Electric Generating Station," Revision 10

Procedure OPGP03-ZS-0001, "Vehicle, Material and Personnel Access Control," Revision 25

Procedure OPGP03-ZS-0005, "Control of Keys, Locks and Cores and Keycards," Revision 16

Procedure OPGP09-ZA-0001, "Plant Access Authorization Program," Revision 12

Procedure OPGP09-ZA-0003, "Continual Behavior Observation Program," Revision 6

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

Security Force Instruction No. 2102, "Badging and Administrative Access Control," Revision 4

Security Force Instruction No. 3501, "Explosive Detector Electrical Test," Revision 0

Security Force Instruction No. 3502, "X-Ray Equipment Electrical Test," Revision 0.

Security Force Instruction No. 3503, "Metal Detector Electrical Test," Revision 1

Security Force Instruction No. 3702, "Security Equipment Operability Tests," Revision 11

### **Radiological Effluents Inspection**

#### Radioactive Effluent Release Permits

(U1-11.026.009.G, 12.026.010.G, 14.026.011.G, 15.026.012.G, 16.006.005.L, 17.026.014.G, 18.026.015.G, 92.006.022.L, 93.003.024.L, 103.003.026B.L) (U2-23.076.021.G, 37.076.033.G, 38.076.034.G, 57.056.013.L, 65.055.024.L, 67.056.018.L)

#### Condition Reports

00-551, 762, 1720, 2271, 3264, 3647, 3966, 5128, 5524, 5704, 6387, 6394, 7450, 7823, 7871, 9421, 10467, 10470, 10965, 11283, 13540, 15973, 17329

### **ALARA Inspection**

OPGP03-ZR-0050 "Radiation Protection Program," Revision 3

0PGP03-ZR-0052	"ALARA Program," Revision 3
0PRP07-ZR-0001	"ALARA Engineering and Procedure Review," Revision 1
0PRP07-ZR-0004	"Temporary Shielding," Revision 3
0PRP07-ZR-0010	"Radiation Work Permits," Revision 8
0PRP07-ZR-0011	"Radiological Work ALARA Reviews," Revision 3

## ATTACHMENT 2

### **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:

<b>Reactor Safety</b>	<b>Radiation Safety</b>	<b>Safeguards</b>
<ul style="list-style-type: none"><li>•Initiating Events</li><li>•Mitigating Systems</li><li>•Barrier Integrity</li><li>•Emergency Preparedness</li></ul>	<ul style="list-style-type: none"><li>•Occupational</li><li>•Public</li></ul>	<ul style="list-style-type: none"><li>•Physical Protection</li></ul>

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, and 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>.