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

July 11, 2002

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, UNITS 1 AND 2 - NRC RADIATION SAFETY TEAM INSPECTION REPORT 50-498/02-10; 50-499/02-10

Dear Mr. Cottle:

On June 20, 2002, the NRC completed a radiation safety team inspection at the South Texas Project, Units 1 and 2, facility. The enclosed report documents the inspection findings that were discussed with Mr. G. Parkey, Vice President Generation, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your operating license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Specifically, the inspectors evaluated the inspectable areas within the Radiation Protection Strategic Performance Area that are scheduled for review every two years. These areas are:

- Radiation Monitoring Instrumentation
- Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems
- Radioactive Material Processing and Transportation
- Radiological Environmental Monitoring Program and Radioactive Material Control Program

On the basis of the sample activities and documents selected for observation and review, there were no findings of significance identified during the inspection. The team concluded that, in general, the four program areas listed above were properly implemented in accordance with regulatory requirements.

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/reading-rm/adams.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//

Gail M. Good, Chief
Plant Support Branch
Division of Reactor Safety

Dockets: 50-498; 50-499
Licenses: NPF-76; NPF-80

Enclosure:
NRC Inspection Report
50-498/02-10; 50-499/02-10

cc w/enclosure:
Tom Jordan, Vice President
Engineering & Technical Services
STP Nuclear Operating Company
P.O. Box 289
Wadsworth, Texas 77483

S. M. Head, Manager, Licensing
Nuclear Quality & Licensing Department
STP Nuclear Operating Company
P.O. Box 289, Mail Code: N5014
Wadsworth, Texas 77483

A. Ramirez/C. M. Canady
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, Texas 78704

M. T. Hardt/W. C. Gunst
City Public Service Board
P.O. Box 1771
San Antonio, Texas 78296

D. G. Tees/R. L. Balcom
Houston Lighting & Power Company
P.O. Box 1700
Houston, Texas 77251

Jon C. Wood
Matthews & Branscomb
112 E. Pecan, Suite 1100
San Antonio, Texas 78205

A. H. Gutterman, Esq.
Morgan, Lewis & Bockius
1800 M. Street, N.W.
Washington, D.C. 20036-5869

C. A. Johnson/R. P. Powers
AEP - Central Power and Light Company
P.O. Box 289, Mail Code: N5022
Wadsworth, Texas 77483

INPO
Records Center
700 Galleria Parkway
Atlanta, Georgia 30339-5957

Bureau of Radiation Control
State of Texas
1100 West 49th Street
Austin, Texas 78756

Jim Calloway
Public Utility Commission
William B. Travis Building
P.O. Box 13326
1701 North Congress Avenue
Austin, Texas 78701-3326

John L. Howard, Director
Environmental and Natural Resources Policy
Office of the Governor
P.O. Box 12428
Austin, Texas 78711-3189

Judge, Matagorda County
Matagorda County Courthouse
1700 Seventh Street
Bay City, Texas 77414

Electronic distribution from ADAMS by RIV:
Regional Administrator **(EWM)**
DRP Director **(KEB)**
DRS Director **(ATH)**
Senior Resident Inspector **(NFO)**
Branch Chief, DRP/A **(WDJ)**
Senior Project Engineer, DRP/A **(CJP)**
Staff Chief, DRP/TSS **(PHH)**
DRS/PSB/Senior Health Physicist **(JBN)**
DRS/PSB/P.E. Senior Health Physicist **(LTR)**
DRS/PSB/Health Physicist **(JSD)**
DRS/PSB/Health Physicist **(BDB1)**
RITS Coordinator **(NBH)**
Scott Morris **(SAM1)**
STP Site Secretary **(LAR)**

DOCUMENT NAME: R:_STP\STP2002-10RP-JBN-TEAM.WPD

RIV:DRS/PSB	PSB	PSB	PSB	C:PSB
JBNicholas	LRicketson	JSDodson	BDBaca	GMGood
/RA/	/RA/	/RA/	/RA/	/RA/
7/3/02	7/9/02	7/9/02	7/7/02	7/10/02

C:DRP/Branch A	C:PSB			
WDJohnson	GMGood			
/RA/	/RA/			
7/11/02	7/11/02			

OFFICIAL RECORD COPY

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Dockets:	50-498; 50-499
Licenses:	NPF-76; NPF-80
Report No.:	50-498/02-10; 50-499/02-10
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:	June 17 - 20, 2002
Inspectors:	J. Blair Nicholas, PhD, Senior Health Physicist - Team Leader Larry Ricketson, PE, Senior Health Physicist James S. Dodson, Health Physicist Bernadette D. Baca, Health Physicist
Approved By:	Gail M. Good, Chief, Plant Support Branch Division of Reactor Safety
ATTACHMENT:	Supplemental Information

SUMMARY OF FINDINGS

South Texas Project, Units 1 and 2
NRC Inspection Report 50-498/02-10; 50-499/02-10

IR 05000498/2002-010, IR 05000499/2002-010; STP Nuclear Operating Company; 06/17/2002-06/20/2002; South Texas Project Electric Generating Station, Units 1& 2; Radiation Safety Team Inspection

The inspection was conducted by a team of four region-based inspectors. Based on the results of the inspection, the team did not identify any significant findings. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

2. RADIATION SAFETY

2OS3 Radiation Monitoring Instrumentation (71121.03)

a. Inspection Scope

The inspectors evaluated the adequacy of the programs to calibrate radiation monitoring instruments and to provide self-contained breathing apparatus equipment. The inspectors interviewed cognizant licensee personnel, observed instrumentation in the field, and compared the following items to regulatory requirements:

- Operability, calibration, performance checks and alarm set points, when applicable, of selected radiation detection instrumentation (whole-body counters, PCM-1C personnel contamination monitors, PM-7 personnel portal monitors, RO-20 ion chambers, RO-2 ion chambers, Model 177 alarming rate meters, Model 333-2 beta air monitors, Model 3 survey meters, Model 6112B teletectors, and SAM-11 small article monitors), continuous air monitors, electronic alarming dosimeters, effluent radiation monitors, and area radiation monitors

- Calibration and alarm set points of selected area and process radiation monitoring instrumentation (Units 1 and 2: Reactor Containment Building Atmosphere Monitors (RT-8011); Reactor Containment High Range Monitors (RT-8050 and 8051); Steam Generator Blowdown Area Monitors (RT-8024); Fuel Handling Building Operating Floor Area Monitors (RT-8091); Model 333-2 Continuous Air Monitors at the Fuel Handling Building Truck Bay and Radwaste Building Truck Bay; and Model AMS-4 Continuous Air Monitor in the Spent Fuel Pool area)

- Calibration source traceability

- Calibration expiration and source response check currency of pre-staged radiation detection instruments

- Status and associated surveillance records of self-contained breathing apparatus equipment pre-staged in the plant

- 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 equipment

- Quality Assurance Audit Report 01-03 and Health Physics: Respiratory Protection Program Self-Assessment CR 00-17992

- Summary of corrective action documents written since June 2001 involving radiation monitoring instrument deficiencies and self-contained breathing apparatus equipment and selected examples (Condition Reports 01-168, 01-773, 01-3511, 01-9431, 01-9499, 01-11485, 01-11668, 01-12543, 01-13336, 01-13741, 01-15076, 01-17058, 01-18200, 01-19379, 02-668, 02-3652, 02-4484, and 02-5772)

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors interviewed cognizant personnel and walked down the major components of the gaseous and liquid waste processing systems to observe ongoing activities, equipment material condition, and system configuration, as compared to the description in the Updated Final Safety Analysis Report. The inspectors reviewed and compared the following items with regulatory requirements to determine whether the licensee had ensured adequate protection of public health and safety from exposure to radioactive material released into the public domain:

- 2000 and 2001 Radiological Effluent Release Reports
- Changes to the Offsite Dose Calculation Manual and to the radioactive waste system design and operation
- Anomalous results and unplanned releases reported in the Radiological Effluent Release Reports
- 2000 and 2001 radiochemistry quality control program results
- Effluent radiological occurrence performance indicator incidents
- Sample collection and analysis of gaseous effluents (unit vent)
- Selected radioactive liquid and gaseous waste releases with 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 and plant stack and vent flow rates surveillance test results for the control room envelope ventilation and the fuel handling building

- Records of instrument calibrations performed since the last inspection (12/2000) of selected discharge effluent radiation monitor and flow measurement devices (Liquid Waste Processing Discharge Monitors N1(2)RA-RT-8038, Liquid Waste Processing Discharge Line Flow Rate Measurement Devices N1(2)WL-FT-4078, Unit Vent Noble Gas Activity Monitors N1(2)RA-RT-8010B, Unit Vent Iodine and Particulate Monitors N1(2)RA-RT-8010A, and Unit Vent Flow Rate Monitors N1(2)RA-RT-8010F)

- Effluent radiation monitor alarm set point values

- Calibration records of counting room instrumentation associated with effluent monitoring and release activities

- Quality control records for the counting room instruments

- Quality Audit Report 02-04, “Offsite Dose Calculation Manual”

- Summary of corrective action documents written since December 2000 related to the radioactive effluent treatment program, effluent monitoring program, and engineered-safety-feature air cleaning systems and selected examples (Condition Reports 01-591, 01-1185, 01-2447, 01-15689, 02-4348, and 02-5048)

b. Findings

No findings of significance were identified.

2PS2 Radioactive Material Processing and Transportation (71122.02)

a. Inspection Scope

The inspectors interviewed radiation workers and radiation protection personnel involved in material processing and transportation activities. The inspectors walked down the liquid and solid radioactive waste processing systems to verify that the current system configuration and operation agreed with the descriptions contained in the Updated Final Safety Analysis Report and the Process Control Program. The inspectors observed the licensee process the contents of the low level spent resin tank into a high integrity container and the processes associated with radioactive waste shipment STP-2-02-0018. Additionally, the inspectors reviewed and compared the following items with regulatory requirements:

- Adequacy of any changes made to the liquid and solid radioactive waste processing systems since the last inspection (01/2001)

- Waste stream sampling procedures and radio-chemical sample analysis results for each identified radioactive waste stream

- Scaling factors and calculations used to account for difficult-to-measure radionuclides

- 10 CFR Part 20, Appendix G, Quality Assurance Program
- Documentation for six non-excepted package shipments (STP-2-01-0027, STP-1-01-0040, STP-2-01-0042, STP-2-02-0014, STP-0-02-0015, and STP-2-02-0017) that demonstrated shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and licensee verification of shipment readiness
- Licensee permits, transferee licenses, and the certificate of compliance for the 8-120B shipping cask
- Training of personnel responsible for the conduct of radioactive waste processing and radioactive material shipment preparation activities
- Quality Assurance Audit Report 01-03 (RC), “Radiological Controls / Radwaste”
- Summary of corrective action documents written since January 2001 involving the radioactive material and shipping programs and selected examples (Condition Reports 01-2843, 01-5649, 01-5816, 01-9530, 01-13431, 01-16392, 01-17251, 02-3669, 02-4624, 02-7189, and 02-8208)

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed the radiological environmental monitoring and meteorological monitoring programs to verify that the licensee implemented them consistent with the Technical Specifications, Offsite Dose Calculation Manual, and Technical Requirements Manual. The inspectors interviewed members of the licensee’s staff responsible for implementing the radiological environmental monitoring, meteorological monitoring, and radioactive material control programs. The inspectors observed the following activities and equipment:

- Collection, preparation, and analyses of airborne particulate and charcoal samples
- Meteorological instrumentation and data displays at the primary and back-up meteorological towers and the Unit 1 control room
- The survey of materials for release from the Units 1 and 2 radiologically controlled areas

The following items were reviewed and compared with regulatory requirements to determine whether the licensee had an adequate program to verify the impact of radioactive effluent releases to the environment and to ensure that the licensee's surveys and controls were adequate to prevent the inadvertent release of licensed materials into the public domain:

- Implementing procedures for the radiological environmental monitoring program
- Environmental sample analytical results
- Five environmental air sampling stations (18, 33, 35, 37, and 39), two surface water sampling stations (209 and 237), one drinking water sampling station (210), one composite water sampling station (216), one broadleaf vegetation sampling station (37), and seven thermoluminescent dosimetry (TLD) stations (7, 8, 33, 35, 37, 39, and 41)
- Calibration and maintenance records for the environmental air sampling equipment and radiation measurement instrumentation
- 2000 and 2001 land use census results and changes to the radiological environmental monitoring program
- 2000 and 2001 Annual Environmental Operating Reports
- The station environmental laboratory's performance in the interlaboratory comparison program
- Implementing procedures for the meteorological monitoring program
- Meteorological instrument operability, reliability, and annual meteorological data recovery
- Procedures, methods, and instruments used to survey, control, and release materials from the radiologically controlled area
- Detection sensitivities of radiation survey instruments used for the release of potentially contaminated materials from the radiologically controlled area
- Criteria used for the unrestricted release of potentially contaminated material from the radiologically controlled area
- Quality assurance surveillance monitoring reports MN-02-2-0342, "Monitoring of Personnel Exiting the Unit 2 RCA," and MN-02-0-0110, "Environmental TLD Collection and Processing;" and audit reports 00-07, "Radiological Environmental Monitoring Program," and 01-03, "Radiological Controls/Radwaste"
- Radiation protection self-assessments 01-7622, "Radiological Environmental Monitoring Program," and CR 01-8405, "Control of Radioactive Material"

- Summary of corrective action documents written since September 2000 involving the radiological environmental monitoring and meteorological monitoring programs and selected examples (Condition Reports 00-11790, 00-16623, 00-17400, 01-2440, 01-2815, 01-11435, 01-14742, 01-15072, 01-15172, 01-16794, 01-18919, 01-19557, 02-7505, 02-6664, 02-5175, 02-7116, 02-7223, and 02-7705)

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA6 Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. G. Parkey, Vice President Generation, and other members of licensee management during a teleconference exit meeting conducted on June 25, 2002. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether or not any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

R. Aguilera, Supervisor, Health Physics
W. Bullard, Supervisor, Health Physics
R. Gangluff, Manager, Chemistry
L. Earls, Health Physicist
E. Halpin, Plant Manager
S. Head, Manager, Licensing
R. Lovell, Manager, Training
F. Mangan, Vice President Business Services
M. McBurnett, Director, Quality and Licensing
W. Mookhoek, Licensing
G. Parkey, Vice President Generation
R. Piggott, Licensing
G. Powell, Manager, Health Physics
R. Rencurrel, Manager, Operations
D. Sherwood, Supervisor, Health Physics
D. Towler, Manager, Quality

NRC

G. Guerra, Resident Inspector, STP

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed During this Inspection

None

Previous Items Closed

None