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

May 13, 2002

EA-01-304

C. L. Terry, Senior Vice President
& Principal Nuclear Officer
TXU Generation Management Company LCC,
Managing General Partner for TXU Generation
Company LP
ATTN: Regulatory Affairs Department
P.O. Box 1002
Glen Rose, Texas 76043

SUBJECT: CORRECTION TO COMANCHE PEAK STEAM ELECTRIC STATION -NRC SUPPLEMENTAL INSPECTION REPORT 50-445/02-03; 50-446/02-03

Dear Mr. Terry:

On May 3, 2002, Comanche Peak Steam Electric Station Supplemental Report 50-445/02-03; 50-446/02-03 was issued using an incorrect inspection report number. The correct inspection report number should have been 50-445/02-07; 50-446/02-07. A corrected inspection report in its entirety is enclosed with changes highlighted in bold. We regret any inconvenience this may have caused.

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://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: 50-445; 50-446

Licenses: NPF-87; NPF-89
Enclosure:
Corrected NRC Inspection Report
50-445/02-07; 50-446/02-07

cc:
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Regulatory Affairs Manager
TXU Generation Company LP
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Glen Rose, Texas 76043

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Branch Chief, DRP/A **(DNG)**
Senior Project Engineer, DRP/A **(CJP)**
Staff Chief, DRP/TSS **(PHH)**
RITS Coordinator **(NBH)**
Scott Morris **(SAM1)**
CP Site Secretary **(LCA)**

DOCUMENT NAME: S:\DRS\REPORTS\CP2002-07RP-MPS.WPD

RIV:DRS/PSB	C:PSB			
MPShannon/jlh	GMGood			
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ENCLOSURE

COMANCHE PEAK STEAM ELECTRIC STATION
NRC SUPPLEMENTAL INSPECTION
REPORT **50-445/02-07; 50-446/02-07**

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

May 3, 2002

EA-01-304

Mr. C. L. Terry
Senior Vice President & Principal Nuclear Officer of
TXU Generation Management Company LCC,
Managing General Partner for
TXU Generation Company LP
ATTN: Regulatory Affairs Department
P.O. Box 1002
Glen Rose, Texas 76043

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION - NRC SUPPLEMENTAL INSPECTION REPORT **50-445/02-07; 50-446/02-07**

Dear Mr. Terry:

On April 25, 2002, the NRC completed a supplemental inspection at your Comanche Peak Steam Electric Station. The enclosed report documents the inspection findings which were discussed with you and other members of your staff at the completion of the inspection.

NRC Inspection Report 50-445/01-07; 50-446/01-07 documented a preliminary White finding and apparent violation that involved 11 examples in which radiological surveys to detect radioactivity required by Technical Specification procedures were not adequate. On February 21, 2002, the NRC issued its Final Significance Determination and Notice of Violation for NRC Inspection Report 50-445/01-07; 50-446/01-07. The significance of the violation was determined to have low to moderate (White) importance to safety when processed through public radiation safety significance determination process.

This supplemental inspection was conducted to provide assurance that the root causes and contributing causes of the White finding were understood, the extent of condition was identified, and the corrective actions for risk significant performance issues were sufficient to address the causes and prevent recurrence. To accomplish these objectives, the inspector reviewed your root cause analysis, evaluation of extent of condition, and proposed corrective actions.

Based on the results of this inspection, the NRC determined that the identification of the root causes, contributing causes, and corrective actions associated with the White finding were comprehensive and broad-based. Implementation of the corrective actions should correct the subject radioactive material control issue.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its

enclosure, and your response will be made 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/

Arthur T. Howell lll, Director
Division of Reactor Safety

Dockets: 50-445
50-446
Licenses: NPF-87
NPF-89

Enclosure:
NRC Inspection Report
50-445/02-07; 50-446/02-07

cc w/enclosure:
Roger D. Walker
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Staff Chief, DRP/TSS **(PHH)**
RITS Coordinator **(NBH)**
Scott Morris **(SAM1)**
CP Site Secretary **(LCA)**

DOCUMENT NAME: **R:\DRS\REPORTS\CP2002-07RP-MPS.WPD**

RIV:DRS/PSB	PEER REVIEW	C:PSB	C:DRP/A	D:DRS
MPShannon		GMGood	WDJohnson	AHowell
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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket No(s).:	50-445; 50-446
License No(s).:	NPF-87; NPF-89
Report No:	**2002-07**
Licensee:	TXU
Facility:	Comanche Peak
Location:	Glen Rose, Texas
Dates:	April 23-25, 2002
Inspector:	Michael P. Shannon, Senior Health Physicist
	Gail M. Good, Chief, Plant Support Branch Division of Reactor Safety

SUMMARY OF FINDINGS

Comanche Peak
NRC Inspection Report No. **50- 445-02-07; 50-446-02-07**

IR 05000445-02-07; IR 05000446-02-07; on 04/23-25/2002; TXU Energy; Comanche Peak Steam Electric Station; Units 1 and 2. Regional Report.

The inspection was conducted by a regional office inspector. The inspection identified no findings of significance. 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. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

Cornerstone: Public Radiation Safety

- This supplemental inspection was performed by the NRC to assess the licensee's evaluation of the control of radioactive material. A finding previously characterized as having low to moderate safety significance (White) was documented in the Final Significance Determination for NRC Inspection Report 50-445/01-07; 50-446/01-07. During this supplemental inspection performed in accordance with Inspection Procedure 95001, the inspector determined that the licensee performed a thorough, broad-based evaluation of the causes of the radioactive material control issue and correctly identified the extent of the conditions that led to the control problems. The licensee's evaluation identified 17 root causes. Corrective actions included: (1) conducting a pre-outage stand-down with all station work groups to discuss the past associated problems and the importance for control of radioactive material; (2) procedural revisions that clarified radioactive material control expectations and identification programs; (3) improved Radiation Worker Training lesson plans that stressed the need for and the controls in-place for handling radioactive material; and, (4) increased staffing for monitoring and controlling the release of radioactive material during outages. An effectiveness evaluation of radiation protection activities, to include the control of radioactive material, will be documented in Nuclear Oversight Department Evaluation 2002-015, at the completion of refueling outage 2RFO6.

  Because of the licensee's acceptable performance in addressing the control of radioactive material, the White finding associated with this issue will only be considered in assessing plant performance for a total of four quarters, in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program."

Report Details

01 Inspection Scope

This supplemental inspection was performed to assess the licensee's evaluation of the root causes, contributing causes, and corrective actions associated with the "White" radioactive material control finding. This performance issue was previously characterized as "White" in NRC Inspection Report 50-445/01-07; 50-446/01-07 and is related to the public radiation safety cornerstone in the radiation safety strategic performance area.

The inspector interviewed radiation workers and reviewed the following documents:

- Smart Form 2001-2621 and the associated root cause evaluation which documented the control of radioactive material issue identified in NRC inspection report 50-445/01-07; 50-446/01-07,

- Nuclear Overview Department Draft Evaluation 2002-015; Station Procedure STA-652, "Radioactive Material Control," Revision 11; Nuclear Procurement Services Procedure NPS-4.13, "Control of Tools in the Radiologically Controlled Area," Revision 3; Radiation Protection Instructions RPI-213, "Survey and Release of Material and Personnel," Revision 8; RPI-602, "Radiological Surveillance and Posting," Revision 20; and RPI-802, "Performance of Source Checks," Revision 6; Radiation Protection Guideline 2-1, "RMC Activities," Revision 0; Security Instruction 3.3, "Vehicle/Material Delivery Access Control," Revision 10, and

- Radiation Worker Training lesson plans dated March 11, 2002.

02 Evaluation of Inspection Requirements

02.01 Problem Identification

a. Determine that the evaluation identifies who (i.e. licensee, self revealing, or NRC), and under what conditions the issue was identified.

There were 11 events associated with the White finding. The details of the 11 events are documented in NRC Inspection Report 50-445/01-07; 50-446/01-07. The licensee documented all the events; however, two of these events were self revealing (Protected area egress radiation portal monitors alarmed.) The other nine events were identified by the licensee.

b. Determine that the evaluation documents how long the issue existed, and prior opportunities for identification.

The evaluation documented that the licensee identified issues with the control of radioactive material as early as January 2000. Corrective actions implemented during this time period included discontinued use of launderable glove liners and the phasing-

out of modesty garments with pockets. These actions were taken to help eliminate contaminated glove liners from being removed from the radiologically controlled area.

c. Determine that the evaluation documents the plant specific risk consequences (as applicable) and compliance concerns associated with the issue.

A plant specific probabilistic risk assessment is not applicable to this control of radioactive material finding. However, the evaluation did identify that the continued failure to properly control radioactive material may result in a loss of public confidence with the safe operation of Comanche Peak Steam Electric Station.

02.02 Root Cause and Extent of Condition Evaluations

a. Determine that the problems were evaluated using a systematic method(s) to identify root cause(s) and contributing cause(s).

The inspector concluded that the root cause analysis was performed in a systematic manner which correctly and completely determined the root causes and contributing factors. The evaluation team performed the root cause analysis using an industry accepted methodology which employed the following techniques: records review, personnel interviews, barrier analysis, and change analysis. The inspector determined that the above root cause evaluation was performed in accordance with Station Procedure STA-422, “Processing Smart Forms,” Revision 18. The licensee employed a six-person root cause evaluation team led by a trained member of the licensee's staff.

b. Determine that the root cause evaluation was conducted to a level of detail commensurate with the significance of the problem.

The licensee’s root cause evaluation identified 17 root causes. Recommended actions fell into four general categories:

- Release of radioactive material to areas outside the protected and satellite radiologically controlled areas.
- Plant wide communication to reinforce positive tool control practices.
- Improvement of the radiologically controlled area tool control and identification programs.
- Facility changes to reduce the requirements for releasing large amounts of material from the radiologically controlled area.

The inspector determined that each root cause evaluation focused on the overall events and was conducted to the appropriate level of detail commensurate with the significance of the problem. When combined, the evaluations were thorough, broad-based, and conducted to a sufficient level of detail to enhance the program for the control of radioactive material.

c. Determine that the root cause evaluation included a consideration of prior

occurrences of the problem and knowledge of prior operating experience.

The inspector concluded that the root cause evaluation considered similar events associated with the problem of maintaining control of radioactive material for the past two years. From discussions with the licensee's staff, the inspector determined that industry experience was reviewed to help improve their program.

d. Determine that the root cause evaluation included consideration of potential common cause(s) and extent of condition of the problem.

The licensee's evaluation considered the potential common causes and the extent of the conditions associated with the control of radioactive material. Common causes included procedure deficiencies and lack of ownership for the control of radioactive materials on the part of radiation workers.

02.03 Corrective Actions

a. Determine that appropriate corrective action(s) are specified for each root/contributing cause or that there is an evaluation that no actions are necessary.

The inspector concluded that the corrective actions appropriately addressed the associated root causes. The inspector found that licensee representatives had identified specific corrective actions to address each of the documented 17 root causes. Corrective actions included: (1) holding a pre-outage stand-down with all station work groups to discuss the importance for the control of radioactive material and the past associated problems; (2) procedural revisions that clarified radioactive material control expectations and identification programs; (3) improved Radiation Worker Training lesson plans that stressed the need for and the controls in-place for handling radioactive material; and, (4) increased staffing for monitoring and controlling the release of radioactive material during outages.

The inspector determined that the corrective actions appeared to be appropriate to prevent similar occurrences.

b. Determine that the corrective actions have been prioritized with consideration of the risk significance and regulatory compliance.

The inspector concluded that the corrective actions were properly prioritized. A completion date and priority were assigned for each corrective action.

c. Determine that a schedule has been established for implementing and completing the corrective actions.

From a review of the root cause evaluation, the inspector determined that a schedule had been developed for the completion of each corrective action. As of April 19, 2002, all corrective actions were completed.

d. Determine that quantitative or qualitative measures of success have been

developed for determining the effectiveness of the corrective actions to prevent recurrence.

From a review of Draft Nuclear Oversight Department (NOD) Evaluation 2002-015 and discussions with members of the NOD, the inspector concluded that NOD performed observations of radiation protection activities during refueling outage 2RFO6. An effectiveness evaluation of radiation protection activities, including the control of radioactive material, will be documented, at the completion of refueling outage 2RFO6.

4. OTHER ACTIVITIES

4OA3 Event Followup

(Closed) Violation (VIO) 50-445/0107-01; 50-446/0107-01(EA-01-304)

The Final Significance Determination for NRC Inspection Report 50-445/01-07; 50-446/01-07, documented a violation that involved 11 examples in which radiological surveys to detect radioactivity required by Technical Specification procedures were not adequate. The inspector reviewed the licensee's root cause determination and associated corrective action document (Smart Form 2001-2621) pertaining to the Technical Specification 5.4.1.a violation. The licensee's evaluation identified corrective actions that fell into four general categories: (1) Release of radioactive material to areas outside the protected and satellite radiologically controlled areas, (2) Plant wide communication to reinforce positive tool control practices, (3) Improvement of the radiologically controlled area tool control and identification programs, and (4) Facility changes to reduce the requirements for releasing large amounts of material from the radiologically controlled area.

The inspector concluded that the licensee's corrective actions adequately addressed the root causes.

4OA6 Management Meetings

Exit Meeting Summary

The inspector presented the inspection results to Mr. L. Terry, Senior Vice-President and Principal Nuclear Officer, and other members of licensee staff at the conclusion of the inspection on April 25, 2002. The licensee acknowledged the findings presented. This meeting constituted the regulatory performance meeting specified in the Inspection Manual Chapter 0305 action matrix.

The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

Attachment 1

PARTIAL LIST OF PERSONS CONTACTED

Licensee

S. Bradley, Supervisor, Radiation Protection
J. Curtis, Manager, Radiation Protection
T. Hope, Manager, Regulatory Compliance
D. Kay, Supervisor, Radiation Protection
J. Kelly, Vice-President Engineering
M. Lucas, Manager, Nuclear Oversight Department
R. McGaughy, Engineer, Nuclear Oversight Department
C. Terry, Senior Vice-President and Principal Nuclear Officer
R. Walker, Manager, Regulatory Affairs
D. Wilder, Manager, Radiation and Industrial Safety
C. Wilkerson, Senior Engineer, Regulatory Affairs

NRC

G. Good, Chief, Plant Support Branch

ITEMS OPENED, CLOSED, AND DISCUSSED

Closed During this Inspection

50-445;446/0107-01 VIO Failure to survey (EA-01-304)

SUMMARY OF FINDINGS

Comanche Peak
NRC Inspection Report No. 50- 445; 50-446
INSPECTION PERIOD APRIL 23-25, 2002

IR 05000445-02-07; IR 05000446-02-07; on 04/23-25/2002; TXU Electric; Comanche Peak Steam Electric Station; Units 1 and 2. Regional Report.

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M. Shannon (4640)
Cornerstone: Public Radiation Safety

PIM NRC FIN PS April 25, 2002 95001

Supplemental inspection results

- A supplemental inspection was performed by the NRC to assess the licensee's evaluation of the control of radioactive material. A finding previously characterized as having low to moderate safety significance (White) was documented in the Final Significance Determination for NRC Inspection Report 50-445/01-07; 50-446/01-07. During this supplemental inspection performed in accordance with Inspection Procedure 95001, the inspector determined that the licensee performed a thorough, broad-based evaluation of the causes of the radioactive material control issue and correctly identified the extent of the conditions that led to the control problems. The licensee's evaluation identified 17 root causes. Corrective actions included: (1) conducting a pre-outage stand-down with all station work groups to discuss the past associated problems and the importance for control of radioactive material; (2) procedural revisions that clarified radioactive material control expectations and identification programs; (3) improved Radiation Worker Training lesson plans that stressed the need for and the controls in-place for handling radioactive material; and, (4) increased staffing for monitoring and controlling the release of radioactive material during outages. An effectiveness evaluation of radiation protection activities, to include the control of radioactive material will be documented in Nuclear Oversight Department Evaluation 2002-015, at the completion of refueling outage 2RFO6.

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