



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005**

May 9, 2005

Mike Blevins, Senior Vice President  
and Chief Nuclear Officer  
TXU Power  
ATTN: Regulatory Affairs  
Comanche Peak Steam Electric Station  
P.O. Box 1002  
Glen Rose, TX 76043

**SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION - NRC EXAMINATION  
REPORT - 05000445/2005301, 05000446/2005301**

Dear Mr. Blevins:

On March 29, 2005, the NRC completed an initial examination at your Comanche Peak Steam Electric Station. The enclosed report documents the examination findings, which were discussed on March 30, 2005, with Mr. Rafael Flores and other members of your staff.

The examination included an evaluation of three applicants for reactor and senior operator licenses. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9. We determined that two applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

During the examination, the NRC identified one finding that was evaluated under the Significance Determination Process as having very low safety significance (Green). The NRC has also determined that a violation is associated with the finding. Consistent with Section VI.A of the Enforcement Policy, the violation is being treated as a noncited violation because it has been entered into your corrective action program. The violation is described in the subject examination report. If you contest the violation or its significance, you should provide a response within 30 days of the date of this examination 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 Comanche Peak Steam Electric Station facility.

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-2-

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Sincerely,

/RA/

Anthony T. Gody  
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Division of Reactor Safety

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

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-3-

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Dockets: 50-445; 50-446  
Licenses: NPF-87; NPF-89  
Report No.: 05000445/2005301; 05000446/2005301  
Licensee: TXU Power  
Facility: Comanche Peak Steam Electric Station  
Location: Glen Rose, Texas  
Dates: March 28-30, 2005  
Examiner: Michael E. Murphy, Senior Operations Engineer, Operations Branch  
Kelly Clayton, Operations Engineer, Operations Branch  
Approved By: Anthony T. Gody, Chief  
Operations Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

ER 05000445/2005301, 05000446/2005301; 3/28-30/2005; Comanche Peak Steam Electric Station, Initial Operator Licensing Examination Report, Abnormal Procedure Quality and Equipment Availability for Emergency Fill of the Condensate Storage Tank from the Fire Protection Water Stations.

NRC examiners evaluated the competency of three applicants; one for reactor operator license, and two for instant senior operator licenses at Comanche Peak Steam Electric Station, Units 1 and 2. The written examination was developed by the NRC staff and the operating test was developed by the licensee staff using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9. The licensee administered the written examination to the applicants on March 24, 2005. The NRC examiners administered the operating test on March 28-29, 2005. The license examiners determined that two of the three applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued. One Green noncited violation was identified. The significance of this finding is indicated by its color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." 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.

### NRC-Identified and Self-Revealing Findings

#### Cornerstone: Mitigating Systems

- Green. The examiners identified a noncited violation of Technical Specification 5.4.1 associated with an inadequate abnormal operating procedure. Specifically, the examiners determined that Procedure ABN-305, "Auxiliary Feedwater System Malfunction," Revision 5, was not adequate, in that, Attachment 4 of the procedure did not have an accurate list of all the adapters required to complete the connections to the valves listed in the attachment. Additionally, adapters required in Attachment 4 to complete connections to perform an emergency fill of the condensate storage tank with fire protection water were not readily available. This deficiency was discovered while walking down a job performance measure task during examination validation week. The licensed senior operator that was used for the task validation could not locate the required fitting in the nearby cabinets for the valve required to be used to fill the condensate storage tank in the procedure's attachment. Also, the attachment did not mention the specific types of adapters required for each of the different connection sources. The licensee is correcting the procedure to include information on the types of adapters required and the order of preference of these supply points for filling the condensate storage tank and has staged the proper adapters for each of the valve types in the area required by this procedure and has documented this issue in Condition Report/Smart Form SMF-2005-001022-00.

The finding is a performance deficiency in that the licensee failed to identify that the proper equipment was not readily available and the procedure did not correctly identify the required fittings for each of the possible supply valve choices. The finding is more than minor because it affects the Mitigating Systems Cornerstone of procedural quality and equipment performance, in that, it could result in a failure to locate and use the proper equipment to fulfill the abnormal procedure, Attachment 4, when the condensate storage tank is at a low level. Using the Phase 1 worksheet in Manual Chapter 0609, "Significance Determination Process", this finding is determined to be of very low safety significance because there was no actual loss of a safety function (Section 1R04).

## Report Details

### 1. REACTOR SAFETY

#### Cornerstone: Mitigating Systems

#### 1R04 Equipment Alignment

##### b. Examination Scope

The examiners were walking down a systems examination task - an in-plant Job Performance Measure P3 - to ensure that all tasks were relevant and accurately reflected in the standard prior to administering the exam. The Job Performance Measure P3 task required alternate filling of the condensate storage tank with fire protection water, using a fire hose station and adapters as required in the procedure.

##### b. Findings

Introduction. A Green noncited violation of Technical Specification 5.4.1 was identified for an inadequate procedure associated with alternate filling of the condensate storage tank with fire protection water during abnormal conditions.

Description. On March 1, 2005, while validating the operating test portion of an initial license examination, the examiners were walking down an in-plant Job Performance Measure P3 that utilized Abnormal Procedure ABN-305, "Auxiliary Feedwater Malfunction." This job performance measure required the operator to simulate filling the condensate storage tank from fire protection water using a local fire station hose and a quick-disconnect, pneumatic-style adapter for the valve specified in Job Performance Measure P3. The licensed senior operator utilized as the examination candidate could not find the required adapter for the valve near the location of the fire station nor in several cabinets located inside the radiologically controlled area where these adapters are stored. Also, the procedure did not list the pneumatic-style of adapter required for the valve specified in the task to be validated. The other adapters listed could not be used for the specified valve to fill the condensate storage tank. Because of the potential impact on actual plant safety the task was removed from the examination and the issue was released to the licensee in order for corrective actions to be implemented. The licensee created an entry into their respective corrective action program for the missing adapters and a procedure change for the valve that required the pneumatic-style adapter, Condition Report/Smart Form SMF-2005-001022-00.

Analysis. The finding is a performance deficiency in that the licensee failed to identify that the proper equipment was not readily available and the procedure did not correctly identify the required adapters for each of the possible supply valve choices. The finding is more than minor because it affects the Mitigating Systems Cornerstone for procedure quality and equipment performance in that it could result in a failure to locate and use the proper equipment to fulfill the abnormal procedure, Attachment 4, when the condensate storage tank is at a low level. The finding is of very low safety significance



(Green) because the finding did not result in a loss of safety function and other sources of water to the auxiliary feedwater pumps were available. This finding was evaluated using the At-Power Situations Significance Determination Process.

Enforcement. Technical Specification 5.4.1 requires, in part, that written procedures be established, implemented, and maintained as recommended in Appendix A of Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)," Revision 2, February 1978. Regulatory Guide 1.33, Revision 2, Appendix A, provides the typical activities that should be covered by written procedures. Section 5 requires procedures for combating abnormal, off-normal, or alarm conditions.

Contrary to the above, Procedure ABN-305, Attachment 4, Revision 5, failed to implement proper equipment requirements for certain valves available to fill the condensate storage tank. Also, the licensee failed to have some of the equipment available that would be necessary to fill the tank using this procedure. Because this example of an inadequate procedure is of very low safety significance and has been entered into the licensee's corrective action program (SMF-2005-001022-00), this violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy: Noncited Violation 05000445; 05000446/2005301-01, Inadequate Procedure ABN-305, Revision 5.

4. OTHER ACTIVITIES (OA)

4OA4 Initial Operator License Examination

1. Operator Knowledge and Performance

c. Scope

On March 24, 2005 the Licensee administered the written examination to the applicants. The licensee graded the examination, analyzed the results, and submitted the final package on March 31, 2005.

The NRC examiners administered the operating test portion of the examination on March 28-29, 2005. The three applicants participated in three dynamic simulator scenarios. The two applicants for senior operator licenses participated in a control room and facilities walkthrough test consisting of 10 system tasks, and an administrative test consisting of 5 administrative tasks. The applicant for a reactor operator license participated in a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of four administrative tasks.

d. Findings

The two applicants for senior operator license passed the written examination. The overall written examination grade average was 81 percent.

The licensee conducted a performance analysis for the written examination to determine if there were any knowledge weakness commonalities or training issues associated with the questions missed by the applicants and submitted this analysis to the chief examiner for review on March 31, 2005. The licensee did not identify weaknesses or training issues. The chief examiner reviewed the facility's submittal and concurred with the results.

The final written examinations and answer keys, as well as the licensee's post examination analysis can be viewed in the NRC's document management system (ADAMS) under the accession numbers referenced in the attachment to this report.

All three applicants passed the operating test portion of the examination.

## 2. Initial Licensing Examination Development

### a. Scope

The NRC developed the written examination in accordance with NUREG-1021, Revision 9, using facility training and operations staff on the security agreement to validate the written examination. The facility's training staff developed the operating examination. The training staff also assisted the NRC examiners in validating the operating examination during the week of February 28, 2005.

### b. Findings

One noncited violation involving an inadequate procedure was identified during the examination validation, which is documented in Section 1R04.

There were a number of minor violations found during examination development, such as an inadequate abnormal operating procedure entry condition, that were not documented in the report. These minor violations were placed in the licensee's corrective action program.

The reference materials provided to the NRC were also inadequate, in that, they were several years old and did not include training objective links to the knowledge and abilities prescribed in NUREG-1122, "Knowledge and Abilities Catalog for Nuclear Power Plant Operators: Pressurized Water Reactors," Revision 1. The licensee acknowledged the finding after the examination was administered and determined that there was no impact on examination validity.

## 3. Simulation Facility Performance

### a. Scope

The examiners observed simulator performance with regard to plant fidelity during the examination validation and administration.

b. Findings

No findings of significance were identified.

4. Examination Security

a. Scope

The examiners reviewed examination security both during the onsite preparation week and examination administration week for compliance with NUREG-1021 requirements. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

No findings of significance were identified.

4OA6 Management Meeting

Exit Meeting Summary

On March 30, 2005, the examiners presented the examination results to Mr. Rafael Flores and other members of the licensee's staff who acknowledged the findings. The inspectors confirmed that proprietary information was not provided or reviewed during the examination process.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee personnel**

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C. Dillard, Training Instructor  
G. Ellis, Training Supervisor  
S. Ellis, Director, Nuclear Overview  
R. Flores, VP of Nuclear Operations  
M. Lucas, VP of Nuclear Engineering  
F. Madden, Director, Regulatory Affairs  
S. Sewell, Nuclear Training Manager  
R. Slough, Nuclear Technologist, Regulatory Affairs  
R. Smith, Operations Director  
G. Struble, Training Supervisor  
T. Werk, Training Instructor

#### **NRC personnel**

Don Allen, Senior Resident Inspector  
Fred Sanchez, Resident Inspector

### **ITEMS OPENED AND CLOSED**

#### **Opened and Closed**

05000445;  
05000446/2005-301-01      NCV      Inadequate Procedure ABN-305, Filling the Condensate Storage Tank with Fire Protection Water (1R04)

### **ADAMS DOCUMENTS REFERENCED**

Accession No. ML051230431      Final Written Examination and Answer Key  
Accession No. ML051230435      Final Operating Examination and Answer Key  
Accession No. ML051230437      Post Examination Analysis