

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-445/84-23  
50-446/84-08

Construction Permits: CPPR-126  
CPPR-127

Dockets: 50-445  
50-446 ✓

Category: A2

Licensee: Texas Utilities Electric Company  
400 North Olive Street  
Dallas, Texas 75201

Facility Name: Comanche Peak Steam Electric Station (CPSES), Units 1 and 2

Inspection At: Comanche Peak Site, Glen Rose, Texas

Inspection Conducted: July 2, 3, 5, 6, and 11, 1984

Inspector:

*Blaine Murray*  
for R. E. Baer, Radiation Specialist, Facilities  
Radiological Protection Section

*8/13/84*  
Date

Approved:

*Blaine Murray*  
B. Murray, Chief, Facilities Radiological  
Protection Section

*8/13/84*  
Date

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D. M. Hunnicutt, Team Leader, Task Force

\_\_\_\_\_  
Date

Inspection Summary

Inspection Conducted July 2, 3, 5, 6 and 11, 1984 (Report 50-445/84-23;  
50-446/84-08)

Areas Inspected: Routine, announced inspection of the licensee's radioactive waste program and transportation activities including: organization; training; radioactive waste management; air cleaning systems; instrumentation; audits and reviews; and procedures. The inspection involved 44 inspector-hours onsite by one NRC inspector.

Results: Within the seven areas inspected, no violations or deviations were identified.

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DETAILS1. Persons ContactedTexas Utilities Generating Company

- \*R. A. Jones, Manager, Plant Operations
- \*L. C. Barnes, Operations Supervisor
- M. R. Blevins, Maintenance Superintendent
- \*S. E. Bradley, Engineering, Radiation Protection
- +\*D. W. Braswell, Engineering Superintendent
- + R. D. Calder, Nuclear Engineering Manager
- \*R. D. Delano, Chemistry and Environmental Engineer
- \*D. E. Deviney, Operations Quality Assurance Supervisor
- +\*R. E. Fishencord, Radiation Protection Supervisor
- J. Hicks, Results Engineer
- G. E. Jergins, Mechanical Maintenance Engineer
- C. W. Killough, Senior Quality Assurance Technician
- +\*B. T. Lancaster, Radiation Protection Engineer
- \*S. R. Lueders, Radwaste Coordinator (Operations Aide)
- \*F. Madden, Supervising Engineer
- G. M. McGrath, Results Engineering Supervisor
- + J. D. Rodriguez, Instrument and Control Staff Engineer
- R. B. Seidel, Operations Superintendent
- E. J. Schmitt, Staff Chemist
- \*J. Smith, Operational Quality Assurance Supervisor
- R. G. Spangler, Quality Assurance Services Supervisor
- + B. B. Taylor, Instrument and Control Engineer
- + K. Warkentin, Nuclear Engineer
- + L. Wojcik, Nuclear Engineer

Others

- D. L. Kelley, Senior Resident Inspector, USNRC
- \*W. F. Smith, Resident Inspector, USNRC

\*Denotes those present at the exit interview on July 6, 1984

+Denotes those present at the exit interview on July 11, 1984

2. Licensee Action on Previous Inspection Findings

(Closed) Open Item (445/8314-10; 446/8308-10): Corporate Audit Program - This item involved the lack of procedures; audit checklists; selected qualified auditors; and the conduct of an audit on radwaste management and transportation activities. The licensee had procedures for the conduct of audits; developed an audit checklist; selected audit team members who had prior experience in radwaste and transportation activities; and conducted an audit, TUG-33, of the radwaste management and transportation activities (see paragraph 8). This item (445/8314-10; 446/8308-10) is considered closed.

(Closed) Open Item (445/8314-12; 446/8308-12): Procedures - This item involved the lack of procedures necessary to implement the radwaste management and transportation activities program. The licensee had developed procedures for receiving and shipping radioactive materials, classification of radioactive waste, calibration of process and effluent monitors, and system-operating procedures necessary for the radwaste management and transportation activities program (see paragraph 9). This item (445/8314-12; 446/8308-12) is considered closed.

3. Radioactive Waste Management Organization

The NRC inspector reviewed the licensee's onsite organizations involved in radioactive waste management to determine compliance with FSAR commitments.

The licensee had made no changes to the radwaste management organization since the previous inspection.

The licensee had developed and approved a position description for a Radwaste Coordinator (Operations Aide) in March 1984 which included job responsibilities.

No violations or deviations was identified.

4. Radioactive Waste Management Training Program

The NRC inspector reviewed the licensee's radioactive waste training program to determine compliance with FSAR commitments and 10 CFR Part 19.12 requirements.

The NRC inspector reviewed the auxiliary operator (AO) training program. The licensee provides classroom training for liquid and gaseous waste processing and solid waste management systems. This is augmented with a system walkdown. Forty-eight of the fifty-nine AOs had completed this training. The licensee had also initiated in May 1984 a liquid/gaseous waste processing and solid waste systems operation training session. This training is directed towards plant specific system operation. Twenty-six AOs had completed the system operation training. The NRC inspector noted the licensee was requiring a passing grade of 70 percent to successfully pass the course. The NRC inspector noted that the licensee had trained a sufficient number of AOs and had three assigned to each of the six operating shifts. This appears to be sufficient to adequately operate the radioactive waste management systems.

The maintenance mechanic training on filter replacement has been tentatively scheduled for the week of July 23, 1984. The licensee had provided training to five Quality Assurance (QA) personnel and Quality

Control personnel and five radiation protection personnel on "Regulatory Awareness Course for Shipping Radioactive Material," which also involved the receipt, handling, and shipping of a type A radioactive material cask.

No violations or deviations were identified.

5. Radioactive Waste Management

The NRC inspector reviewed selected portions of the licensee's radioactive waste management program with respect to FSAR Chapter 11, "Radioactive Waste Management"; Chapter 12, "Radiation Protection"; Chapter 13, "Conduct of Operations"; and Chapter 14, "Initial Tests and Operations."

a. Liquid Radioactive Waste System

The NRC inspector reviewed the licensee's liquid waste management system to determine compliance with FSAR commitments and the requirements of Inspection and Enforcement Bulletin 80-10.

The licensee had completed an ALARA review of the liquid radioactive waste system against the Standard ANSI/ANS 55.6-1979 on May 1, 1984. Those areas that were potential problems were identified; corrective actions were to be taken at a later date.

The NRC inspector reviewed documentation related to preoperational test 1CP-PT-41-01, "Liquid Waste Processing Drain Channel B," conducted between October 12 and December 14, 1983. The procedure involved the resolution of deficiencies and had been approved by the joint test group (JTG) on March 9, 1984. The licensee had completed preoperational test 1CP-PT-41-02, "Waste Evaporator/Liquid Waste Processing System, Channel A." The data package was being assembled and deficiencies were being resolved at the time of this inspection. Preoperational test 1CP-PT-41-03, "Liquid Waste Processing Drain Channel C," Chemical Drain Tank Spent Resin Tank," was in progress.

Open Item 445/8314-03; 446/8308-03 remains open pending completion and approval of preoperational test results.

b. Gaseous Radioactive Waste System

The NRC inspector reviewed the licensee's gaseous waste system to determine compliance with FSAR commitments.

The licensee had completed preoperational test 1CP-PT-61-01, "Gaseous Waste Processing System," in June 1984. The licensee was in the process of assembling the data package in preparation for submittal to the JTG for approval.



Open Item 445/8314-04; 446/8308-04 remains open pending approval of the results of the preoperational test.

c. Solid Radioactive Waste Systems

The NRC inspector reviewed the solid radioactive waste system to determine compliance with FSAR commitments.

The licensee had completed preoperational tests 1CP-PT-60-03, "Containment Solid Waste Compactor," and 1CP-PT-60-04, "Fuel Building Solid Waste Compactor." Preoperational test 1CP-PT-60-01 was in progress, on hold, waiting for replacement of the mixer feeder discharge valve on the waste solidification system.

The NRC inspector discussed with licensee representatives the methods to be used for waste characterization. The licensee stated that during the first 6 months of plant operation they would utilize the Atomic Industrial Forum data. Samples from the various waste streams would be collected and analyses performed by an offsite vendor twice during the first year of operation and then annually thereafter.

The NRC inspector noted that the licensee demonstrated spent resin transfers as part of preoperational test 1CP-PT-41-03 and that filter handling and replacement techniques were contained in 1CP-PT-60-01.

Open Item 445/8314-06; 445/8308-06 remains open pending completion and approval of preoperational test results.

No violations or deviations were identified.

6. Air Cleaning Systems

The NRC inspector reviewed the licensee's air filtration system to determine compliance with FSAR commitments.

The licensee had not performed the preoperational testing on air cleaning systems at the time of this inspection. The NRC inspector discussed with licensee representatives the status of preoperational testing, quality controls to be used to assure that test instrumentation will be properly calibrated, and performance testing of adsorber filter medium (charcoal). The licensee stated that the preoperational testing would be completed in August 1984; the instrumentation calibrations would be checked as part of the prerequisites for the testing; and that there were no provisions to retest the charcoal.

The NRC inspector expressed concern that the licensee had not required an additional performance test of the charcoal. The last test was conducted

over a year ago and at that time some of the charcoal tested for iodine removal efficiencies was marginal. The licensee agreed at the exit interview on July 6, 1984, to retest the charcoal prior to fuel loading.

No violations or deviations were identified.

7. Radiation Monitoring Instrumentation

The NRC inspector reviewed the licensee's inplant radiation monitoring systems for compliance with FSAR commitments and NUREG-0737 requirements.

The NRC inspector discussed with licensee representatives effluent radiation monitor calibrations and verified that these monitors were installed as stated in the FSAR. Those monitors which were considered to be effluent monitors are: for liquids, IRE5100, turbine building drains, and XRE5253, liquid waste discharge; and for gases, XRE5567A and B, south and north ventilation stack, and XRE5570A and B, south and north ventilation stack wide range gas monitor, low range detectors only.

The NRC inspector verified that the calibration of effluent monitors and transfer calibration sources were traceable to the primary calibration performed by the vendor at the vendor's facilities using gases for gaseous monitors and liquids for liquid monitors. The vendor had supplied one point calibration sources. The licensee uses four radioactive sources of known intensity to verify linearity of the detector response over the full range of detectability. Additional verification of calibration will be performed during plant operations; grab samples will be taken from the effluent stream, analyzed in the laboratory, and results compared to the effluent monitor readings.

The NRC inspector discussed, during the exit interview on July 11, 1984, the desirability of future calibrations being performed with liquids and gaseous radioactive standards. The licensee stated during the exit interview that they would evaluate the effluent monitor installation and develop the capability to calibrate with liquids and gases during the first normal recalibration cycle of these instruments.

The licensee had scheduled particulate plateout measurement tests for radiation monitors on the ventilation stacks and containment. The licensee was in the process of completing preoperational test ICP-PT-70-01, "Radiation Monitoring System Functional Test," which includes all the digital radiation monitoring systems required for the operation of CPSES, Unit 1.

Open Item 445/8314-08; 446/8308-06 remains open pending completion and approval of the preoperational test and particulate plateout measurement tests.

No violations or deviations were identified.

## 8. Audits and Reviews

The NRC inspector reviewed the licensee's internal audit/review program regarding radioactive waste management and transportation activities to determine compliance with FSAR commitments

### a. Corporate Quality Assurance Program

The NRC inspector reviewed audit report TUG-33 conducted August 8-11, 1983, on the CPSES radioactive waste management and transportation activities. This audit identified one deficiency and five concerns. The NRC inspector also reviewed the September 26, 1983, response to the audit the corporate QA evaluation of the response dated October 3, 1983, and followup taken during the conduct of audit TUG-55 in May 1984.

The NRC inspector reviewed procedure DQ1-CS-4.6, "Conduct of Internal, Prime, and Subcontractor Audits," Revision 7, April 13, 1984, which pertains to scheduling audits, preparation of checklists, conduct of the audit, deficiencies, and verification of corrective action; and DQP-CS-7, "Corrective Action," Revision 5, June 4, 1984, which addresses inadequate corrective actions and repetitive deficiencies.

### b. Onsite Quality Assurance Program

The NRC inspector reviewed surveillance report QSR-84-010, which had been performed during the period of March 19-April 13, 1984, on radiation equipment control. This surveillance pertained to only the portable radiation detection equipment operation, repair, and calibration. The licensee had not performed a surveillance on the process, effluent and area radiation monitoring systems, or air cleaning systems.

The NRC inspector reviewed procedures STA 402, "Station Quality Surveillance Program," Revision 5, July 26, 1983, which addresses the areas and frequency of surveillances; and STA 404, "Control of Deficiencies," Revision 1, March 2, 1982, which pertains to verification of corrective action and closeout by QA. These procedures appear to be satisfactory to provide a corrective action program with timely resolution of identified deficiencies.

Open Item 50-445/8314-11; 50-446/8308-11 will remain open pending completion of a surveillance on the process, effluent and area radiation monitoring systems, and air cleaning systems.

No violations or deviations were identified.

9. Procedures

The NRC inspector reviewed radwaste management procedures which had been approved since the last inspection to determine compliance with FSAR commitments and 10 CFR Parts 20 and 71 and 49 CFR Part 170-199 requirements. The licensee had developed and implemented the necessary procedures to ensure that the radioactive waste management, transportation activities, and radiological monitoring instrument operation and calibration program could be successfully carried out.

No violations or deviations were identified.

10. Exit Interview

The NRC inspector met with licensee representatives identified in paragraph 1 at the conclusion of the inspection. The NRC inspector discussed the scope and findings of the inspection. The licensee agreed, during the July 6, 1984, exit interview, to have the charcoal used in the air cleaning systems tested to verify iodine removal efficiencies and agreed during the July 11, 1984, exit interview to calibrate effluent radiation monitors with radioactive gases and liquids prior to or during the first refueling outage.