APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION REGION IV

NRC Inspection Report: 50-445/84-42 50-446/84-16

Construction Permits: CPPR-126 CPPR-127

Category A2

Dockets: 50-445 50-446

Licensee: Texas Utilities Electric Company Skyway Tower 400 North Olive Street Lock Box 81 Dallas, Texas 75201

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

Inspection At: Comanche Peak Site, Glen Rose, Texas

Inspection Conducted: October 22-26, 1984

Inspectors:

Delere Munay E. Baer, Radiation Specialist, Facilities HMC Radiological Protection Section (FRPS)

Approved:

Murray, Chief, FRPS

D. M. Hunnicutt, Team Leader, Task Force

<u>12/13/84</u> Date <u>12/13/84</u> Date <u>12/20/84</u>

Inspection Summary

Inspection Conducted October 22-26, 1984 (Report 50-445/84-42; 50/446-84-16)

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, procedures, and on-site storage of low-level waste. The inspection involved 38 inspector-hours onsite by one NRC inspector.

Results: Within the eight areas inspected, no violations or deviations were identified. One new open item is discussed in paragraph 3.

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DETAILS

1. Persons Contacted

Texas Utilities Generating Company

- *R. A. Jones, Manager, Plant Operations
- S. E. Bradley, Engineer Radiation Protection
- *D. W. Braswell, Engineering Superintendent
- D. R. Burk, Startup Test Engineer
- F. Cobb, Startup Test Engineer
- *D. E. Deviney, Operations Quality Assurance Supervisor
- G. E. Jergins, Mechanical Maintenance Engineer
- *B. T. Lancaster, Radiation Protection Engineer
- *S. R. Lueders, Radwaste Coordinator
- M. T. McVean, System Engineer
- E. J. Schmitt, Staff Chemist
- B. B. Taylor, Instrument and Control Engineering

Other

- *P. A. Corwin, General Consultant, MT&F Corporation
- S. M. Franks, Technical Support Special Projects Lead, Impell Corporation
- P. E. Olson, Startup Test Engineer, Bahnson Company
- A. D. Quam, Startup Test Engineer, Impell Corporation

The NRC inspector also interviewed several other licensee and contractor employees including radiation protection, administrative, engineering, and operations personnel.

*Denotes those present at the exit interview on October 26, 1984.

2. Licensee Action on Previous Inspection Findings

(Closed) Open Item (445/8314-02; 446/8308-02): <u>Radwaste Training Program</u> -This item involved the lack of auxiliary operators trained in radwaste systems operations and maintenance personnel trained in radwaste system filter replacement activities. The licensee had developed procedures for training, and had completed the training of a sufficient number of auxiliary operators in radwaste systems operations and maintenance personnel in radwaste system filter replacement activities to support plant operation. This item is considered closed.

(Closed) Open Item (445/8314-03; 446/8308-03): Liquid Waste -This item involved the lack of completion of preoperational testing, development of a sampling program for interface systems, verification of tank volumes, assurance of representative sampling of effluents, verification of discharge flow rates and recorder readings, and performance of an ALARA review of the installed system. The licensee had completed preoperational testing, developed an approved sampling program, verified tank volumes, flow rates, and recorder readings, and performed an ALARA review of the installed liquid waste system. This item is considered closed.

(Closed) Open Item (445/8314-04; 446/8308-04): <u>Gaseous Waste</u> -This item involved the lack of completion of preoperational testing, verification of tank volumes, verification of discharge flow rates and recorder readings, and performance of an ALARA review of the as-built system. The licensee had completed preoperational testing, verified tank volumes, discharge flow rates, and recorder readings, and performed an ALARA review of the as-built gaseous waste system. This item is considered closed.

(Closed) Open Item (445/8314-11; 446/8308-11): <u>Station Quality Assurance</u> <u>Program</u> - This item involved the lack of a surveillance program for radioactive waste and air cleaning systems. The licensee had developed master checklists and performed surveillances on the radioactive waste management program and air cleaning system operation. This item is considered closed.

3. Open Items Identified During This Inspection

Open Items are matters that require further review and evaluation by the NRC inspector or the licensee. Open items are used to document, track, and ensure adequate followup on matters of concern to the inspector.

(Open) Open item (445/8442-01; 446/8416-01): <u>Gaseous Waste Representative</u> <u>Sampling</u> - The licensee had not demonstrated that samples obtained for gaseous waste discharge analysis were representative of the waste gas tank to be discharged (see paragraph 6.b).

4. 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 not made any changes of personnel assignments or the radwaste management organization since the previous inspection.

No violations or deviations were identified.

5. Radioactive Waste 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 had previously reviewed the training being provided to auxiliary operators and the number of operators trained in the operation of radioactive waste systems. There appeared to be a sufficient number of trained operations personnel to support this aspect of plant operation. The NRC inspector reviewed the records of personnel receiving on-the-job training on change-out and replacement of filters in accordance with procedure MMI-206, "NSSS Filter Replacement," Revision 0, dated July 6, 1983, and vendor's technical manuals. Each individual was afforded the opportunity to use all the tools and equipment necessary to remove and replace an existing filter element.

No violations or deviations were identified.

6. Radioactive Waste Management

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

The NRC inspector reviewed documentation related to preoperational tests listed below. The documentation included test procedure deficiencies, test deficiency reports, and resolution of test deficiencies. All test deficiencies appeared to have been appropriately resolved. These preoperational tests had been approved by the joint test group.

- ICP-PT-41-02 "Waste Evaporator/Liquid Waste Processing System Channel A, "Revision 1, December 16, 1983.
- ICP-PT-41-03 "Liquid Waste Processing Drain Channel C, Chemical Drain Tank Spent Resin Tank," Revision 1 December 9, 1983.
- ICP-PT-41-04 "Reactor Coolant Drain Tank Subsystem," Revision 0, December 21, 1982.
- ICP-PT-41-04-RT-1 "Reactor Coolant Drain Tank Subsystem Retest," Revision 0, May 4, 1984.
- ICP-PT-56-01 "Boron Recycle System," Revision 0, January 14, 1983.
- ICP-PT-56-01-RT-1 "Boron Recycle System Retest," Revision 0, April 27, 1984.

The NRC inspector also reviewed calculations of liquid waste tank volumes, recirculation times of liquid effluent release tanks, and liquid waste processing system recirculation times and purge volume reports the licensee had prepared. These data resolved the concerns previously addressed in open item 445/8314-03; 446/8308-03.

No violations or deviations were identified.

b. Gaseous Radioactive Waste System

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

The NRC inspector reviewed the preoperational test package ICP-PT-61-02, "Gaseous Waste Processing System," Revision 1, May 4, 1984, which contained the test conducted, test procedure deficiencies, and test deficiency reports. The test results and resolution of test deficiencies appeared to be satisfactory. The NRC inspector also reviewed the calculations of gas decay tank volumes and waste gas processing system flow rate and purge volume data for the gaseous waste system sample lines.

The licensee had not verified that the sample taken of gaseous effluent would be representative of this entire waste gas tank volume. The licensee's representative stated that this verification would be performed within 6 months after the reactor had been operated and radio gases had been generated and collected.

This is considered an open item (445/8442-01; 446/8416-01) pending verification by the licensee that effluent samples are representative of the discharge volume.

No violations or deviations were identified.

c. Solid Radioactive Waste Systems

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

The NRC inspector discussed the status of the solid radioactive waste systems with licensee representatives. The licensee stated that the installed solidification system will not be tested. In its place, the licensee plans to utilize a vendor supplied portable solidification system. An amendment to the FSAR had been drafted and was in the internal review process. The NRC inspector stated that the licensee will need to submit the FSAR amendment, make a vendor selection, and submit the process control program (PCP) for the new solidification system to the Commission for approval prior to fuel load. The licensee states that a portable solidification system would be moved on site and sested for compatibility with the licensee's system prior to exceeding the five percent power level.

Open item 445/8314-06; 446/8308-06 remains open pending completion of preoperational testing and portable solidification system FSAR changes and selection and approval of a PCP.

No violations or deviations were identified.

7. Air Cleaning Systems

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

The licensee had completed preoperational testing on one of four systems, ICP-PT-07-03, "Control Room Filtration System." The other three: (1) ICP-PT-24-03, "Primary Plant Ventilation System," was in the review process; (2) ICP-PT-45-07, "Containment Preaccess Filtration System," had been submitted for approval; and (3) ICP-PT-46-02, "Containment Hydrogen Purge Filtration System," had identified a deficiency with the installed heaters and was still open.

The NRC inspector reviewed the preoperational test package for ICP-PT-07-03, "Control Room Filtration System Filter Test," Revision 0. The NRC inspector noted that the performance test data for the methyl iodide removal efficiency tests performed on charcoal lot M-3326 at 25 and 80 degrees centigrade and 95 percent relative humidity were either missing or not legible.

Open item (445/8314-07; 446/8308-07) remains open pending completion and approval of preoperational test results and verification of ICP-PT-07-03 test data.

No violations or deviations were identified.

8. 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 the status of preoperational test ICP-PT-70-01, "Radiation Monitor System Functional Test." The licensee stated that the test had been completed and the test package was in the review cycle. Thy NRC inspector reviewed the test deficiency reports identified during the performance of the test. All deficiencies appeared to have been satisfactorily resolved.

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

No violations or deviations were identified.

9. 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.

The NRC inspector reviewed surveillance report QSR-84-027 which had been performed in August 1984 on radiation equipment control. This surveillance included the digital radiation monitoring system. Surveillance report QSR-84-030 was performed in September 1984 on radioactive waste management which included the air cleaning systems. These two surveillances covered those areas which had previously been identified where the lack of a surveillance program existed. The NRC inspector reviewed the deficiencies noted and corrective actions taken by the licensee.

No violations or deviations were identified.

10. Procedures

The NRC inspector reviewed radioactive waste 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 Parts 170-199 requirements. A list of those procedures reviewed are included as attachment A.

No violations or deviations were identified.

11. On-Site Storage of Low-Level Waste

The NRC inspector reviewed the status of the licensee's program for on-site storage of low-level waste. The licensee had completed the engineering design study, building design by a commercial architect, and selection of a site location. The waste (solidified wet waste and dry active waste) will be stored in a Department of Transportation "ready for shipment" condition. The decision to build the storage facility had not been made at the time of this inspection.

No violations or deviations were identified.

12. 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 NRC inspector stated that open items identified in NRC Inspection Report 50-445/83-14; 50-446/83-08 must be resolved before issuance of an operating license.

ATTACHMENT A

- INC-7075X "LRAM Analog Channel Operational Test and Calibration Unit 2
 Fuel Storage Pool East Wall Criticality CH XRE6272," Revision 1,
 October 4, 1984.
- INC-7076X "LRAM Analog Channel Operational Test and Calibration Unit 2 Fuel Storage Pool North Wall Criticality CH XRE6273," Revision 1. October 4, 1984.
- INC-7077X "LRAM Analog Channel Operational Test and Calibration Unit 1 Fuel Storage Pool East Wall Criticality CH XRE6274," Revision 1, October 4, 1984.
- INC-7078X "LRAM Analog Channel Operational Test and Calibration Unit 1 Fuel Storage Pool South Wall Criticality CH XRE6275," Revision 1, October 4, 1984.
- INC-7081X "LPRM Analog Channel Operational Test and Calibration-Liquid Waste Effluent CH XRE5253," Revision 1, July 11, 1984.
- INC-7084A "LPRM Analog Channel Operational Test and Calibration-Turbine Building Floor Drains Channel 1RE5100," Revision 1, July 9, 1984.
- INC-7088X "GPRM Analog Channel Operational Test and Calibration Control Room Vent Intake North CH XRE5895," Revision 0, July 19, 1983.
- INC-7089X "GPRM Analog Channel Operational Test and Calibration Control Room Vent Intake South CH XRE5896," Revision 0, July 19, 1983.
- INC-7050X "WRGM Analog Channel Operational Test and Channel Calibration Plant Vent Stack A Wide Range Gas Channel XRE5570A," Revision 1, May 31, 1984.
- INC-7091X "WRGM Analog Channel Operational Test and Channel Calibration Plant Vent Stack B Wide Range Gas Channel XRE5570B," Revision 1, June 8, 1984.
- RWS-201 "Gaseous Waste Processing System," Revision 1, October 19, 1984.
- RWS-303 "Spent Cartridge Filter Removal and Disposal," Revision 0, October 10, 1984.