

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

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License Nos.: NPF-87
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Report No.: 50-445/97-11
50-446/97-11

Licensee: TU Electric

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

Location: FM-56
Glen Rose, Texas

Dates: April 7-10, 1997

Inspectors: L. T. Ricketson, P.E., Senior Radiation Specialist, Plant Support
Branch

G. L. Guerra, Radiation Specialist, Plant Support Branch

Approved By: Blaine Murray Chief, Plant Support Branch
Division of Reactor Safety

ATTACHMENT: Supplemental Information

EXECUTIVE SUMMARY

Comanche Peak Steam Electric Station, Units 1 and 2
NRC Inspection Report 50-445/97-11; 50-446/97-11

This announced, routine inspection reviewed the implementation of the solid, radioactive waste management and the radioactive materials transportation programs. Training, quality assurance oversight, and procedural guidance were also reviewed.

Plant Support

- The solid waste management program was implemented well (Section R1.1).
- The licensee implemented the transportation regulation revisions properly. A good program for the transportation of radioactive materials and radioactive waste was maintained (Section R1.2).
- The licensee's procedures were very detailed and provided clear guidance. The transportation procedures implemented the revisions of 49 CFR (Section R3).
- The individuals responsible for conducting the radioactive waste transportation program activities were knowledgeable of regulatory requirements and software utilization constraints (Section R4).
- All workers participating in the preparation and packaging of radioactive materials and radioactive waste were appropriately trained (Section R5).
- The organization and staffing of the licensee's radiation protection department was appropriate to implement the radioactive waste and transportation programs (Section R6).
- An excellent assessment was performed by a contractor of the solid waste management and transportation activities; however, the licensee had not verified through oversight activities that the revisions to transportation regulations were implemented correctly (Section R7).

Report Details

IV. Plant Support

R1 Radiological Protection and Chemistry (RP&C) Controls

R1.1 Solid Waste Management

a. Inspection Scope (86750)

The inspectors interviewed the radioactive materials controls supervisor, toured plant facilities, and reviewed records associated with the storage and characterization of radioactive waste streams.

b. Observations and Findings

The licensee's warehouse C and the vault storage yard were used for temporary storage of low level radioactive waste. The areas were properly posted and controlled. No problems were identified with these storage locations.

The inspectors noted very good housekeeping within the radiological controlled area. Waste storage areas were controlled and posted, properly.

During tours of the plant and warehouse C, the inspectors found some minor discrepancies. These discrepancies included the locations of some radioactive waste containers not matching the present inventory and the failure to include some of the containers in the inventory list. The licensee corrected these discrepancies identified by the inspectors and initiated a review of the inventory procedure for possible enhancement. No regulatory issues or safety consequences were associated with the discrepancies in the accountability records.

Waste stream sampling and analyses was performed as required. The licensee used an independent laboratory for analysis of its identified waste streams. Scaling factors were computed and the licensee's computer program data base was updated routinely. The inspectors concluded that this portion of the licensee's program was similar to those in the branch technical positions on waste classification and waste form, and was conducted as required.

Waste classification was performed with the aid of computer software. The inspectors reviewed examples of waste classification documentation and identified no problems.

c. Conclusions

The solid waste management program was implemented well.

R1.2 Transportation of Radioactive Materials

a. Inspection Scope (TI2515/133, 86750)

The inspectors observed shipping operations and reviewed selected examples of shipping documentation.

b. Observations and Findings

Opportunities for performance-based inspection were limited because of the scarcity of radioactive shipments during the week of inspection. A limited-quantity shipment containing radioactive samples was prepared by licensee representatives. The inspectors did not identify problems with the shipment preparation or documentation.

Inspection of selected examples of shipping documentation confirmed that the revisions to the transportation regulations were implemented properly. Included in the examples were items shipped as surface contaminated objects and as low specific activity. The inspectors also confirmed that the licensee successfully implemented the use of SI units, required after April 1, 1997, on packaging and shipping documentation.

c. Conclusions

The licensee implemented the transportation regulation revisions properly. A good program for the transportation of radioactive materials and radioactive waste was maintained.

R3 **Radiological Protection and Chemistry Procedures and Documentation**

The licensee's procedures were very detailed and provided clear guidance. The transportation procedures had been revised to implement the revisions of 49 CFR. However, there were minor examples in which additional revisions were needed, because the procedures included the errors originally published in the Federal Register. None of the errors were significant enough to adversely affect the licensee's radioactive materials transportation program. The licensee promptly initiated the required revisions to the procedures.

R4 **Staff Knowledge and Performance**

Through interviews and discussions, the inspectors determined that the individuals responsible for conducting the radioactive waste transportation program activities were knowledgeable of regulatory requirements and software utilization constraints.

R5 Staff Training and Qualification

a. Inspection Scope (TI2515/133, 86750)

The inspectors reviewed the periodic training of individuals that had taken part in the preparation and packaging of radioactive materials for transportation. Also, the inspectors reviewed the actions the licensee had taken in response to Generic Letter 95-09.

b. Observations and Findings

The inspectors confirmed that individuals participating in the preparation of radioactive material shipments had periodic retraining within the previous two years. The training provided most recently to the licensee's staff was provided by a contractor. The training material was comprehensive and addressed the revisions in transportation regulations, effective April 1, 1996.

Generic Letter 95-09, "Monitoring and Training of Shippers and Carriers of Radioactive Materials," states that in order to avoid imposing the cumbersome and costly requirements of having to provide radiation monitoring and radiation safety instruction to all employees of carrier companies that enter the licensee's restricted area, the licensee may request a letter from the carrier certifying that their personnel are trained and monitored in accordance with the requirements of applicable section of 10 CFR Parts 19 and 20.

In response to the generic letter, the licensee had initiated a practice of escorting shippers or carriers through the radiological controlled areas as the means to meet the intent of a program for monitoring and training of shippers and carriers of radioactive active material. The inspectors agreed that this sufficed as an appropriate means of protecting these people from potential radiological hazards, but stated that it would be discussed with NRC personnel from the responsible program office. NRC headquarters personnel confirmed that this was an acceptable approach.

c. Conclusions

All workers participating in the preparation and packaging of radioactive materials and radioactive waste were appropriately trained.

R6 Radiological Protection and Chemistry Organization and Administration

The inspectors determined that the organization and staffing of the licensee's radiation protection department was adequate to implement the radioactive waste and transportation programs.

R7 Quality Assurance in Radiological Protection and Chemistry Activities

a. Inspection Scope (86750)

The inspectors reviewed quality assurance audits performed by, or for the licensee.

b. Observations and Findings

The inspectors noted that, although the 1996 audit by the Nuclear Overview Department reviewed radioactive waste issues, it did not comprehensively review transportation activities. Instead, the licensee took credit for an assessment performed by a contractor. The contractor assessment was very thorough and it was performed by technical experts. The assessment provided suggestions for improvement and assurance that the necessary programs and procedural guidance were in place. The licensee had addressed and corrected the independent assessment findings with potential regulatory bases. The remaining open items were determined by the inspectors to be enhancements to the transportation program.

The contractor assessment was performed before any shipments were made in accordance with the revised transportation requirements. The inspectors determined that no oversight activities had been conducted since the revised transportation regulations were implemented to confirm regulatory compliance. In response to the inspectors comments concerning overview of transportation activities, Nuclear Overview Division personnel stated that previous reviews of the transportation program identified few problems; therefore, this area needed less oversight. There are no regulatory requirements mandating an independent assessment prior to commencing the revised transportation activities.

c. Conclusions

An excellent assessment was performed by a contractor of the solid waste management and transportation activities; however, the licensee had not verified through oversight activities that the revisions to transportation regulations were implemented correctly.

R8 Miscellaneous Radiological Protection and Chemistry Issues

The inspectors reviewed the guidance in Radiation Protection Instruction 213, "Survey and Release of Material and Personnel," Revision 6, and discussed the unconditional release of items from the radiological controlled area with radiation protection technicians. The inspectors determined that practices met the guidance in Information Notice 85-92, "Surveys of Wastes Before Disposal From Nuclear Reactor Facilities."

The inspectors asked about the disposal of sewer sludge, an issue discussed in Information Notice 88-22, "Disposal Of Sludge From Onsite Sewage Treatment Facilities At Nuclear Power Stations." The inspectors determined that the licensee identified small amounts of cobalt contamination in sewage sludge from the onsite sewage treatment plant. Licensee representatives stated that the sludge was being stored on site until a suitable solution to the problem of disposal is found.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the results of the inspection to members of licensee management at the conclusion of the inspection on April 10, 1997. The licensee acknowledged the findings presented. No proprietary information was identified.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Ayres, Plant Support Overview Manager
A. Barnette, Radiation Protection Supervisor
S. Bradley, Radiation Protection Supervisor
R. Carr, Radiation Protection Supervisor
J. Curtis, Radiation Protection Manager
T. Edwards, Radwaste Engineering Technician
R. Fishencord, Radiation Protection Supervisor
L. Hughes-Edwards, Radwaste Operations Supervisor
D. Kay, Radiation Protection Supervisor
R. Knapp, Senior Health Physicist
J. Luna, Radiation Protection Technician
G. Millican, Radiation Protection Lead Technician
C. Welch, Senior Nuclear Specialist, Nuclear Overview/
C. Wilkerson, Senior Engineer, Regulatory Affairs

NRC

H. Freeman, Resident Inspector

INSPECTION PROCEDURES USED

TI 2515/133	Implementation of Revised 49 CFR Parts 100-179 and 10 CFR Part 71
IP 86750	Solid Radioactive Waste Management and Transportation of Radioactive Materials

DOCUMENTS REVIEWED

Quality Assurance

NOE-EVAL-96-000141	Radwaste and Effluent/Environmental Monitoring Program, September 12, 1996
NOE-EVAL-96-000026	Radioactive Waste Packaging and Shipping, April 2, 1996
WMG Report 9608	Radioactive Material Management Practice Assessment at the Comanche Peak Nuclear Plant, July 1996

Procedures

STA-652	Radioactive Material Control, Revision 7
STA-709	Radioactive Waste Management Program, Revision 6
RPI-213	Survey and Release of Material and Personnel, Revision 6
RPI-215	Waste Stream Sampling, Revision 1
RPI-230	Radioactive Material Shipments, Revision 1
RPI-232	Characterizing Radioactive Material for Shipment, Revision 2
RPI-255	Characterizing Radioactive Waste for Disposal, Revision 2
RPI-256	Radioactive Waste Classification for Disposal at the Barnwell Waste Management Facility, Revision 2
RPI-260	Radwaste Container Tracking and Accountability, Revision 2

Other

Annual Radioactive Effluent Release Report, January 1 - December 31, 1996
Radiation Protection Department Organization Charts
Radwaste Container Inventory
Training Program and Records
Radioactive Materials Shipping Logs for 1995 and 1996
ONE Forms 96-842, 96-1472, 96-922, 96-991, 96-1546, 96-674