

**YU ELECTRIC**

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William J. Cahill, Jr.  
Group Vice President

August 27, 1993

U. S. Nuclear Regulatory Commission  
Attn: Document Control Room  
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
DOCKET NOS. 50-445 AND 50-446  
SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

Gentlemen:

In accordance with Section 6.9.1.4 of the CPSES Unit 1 and 2 Technical Specifications (Appendix A to License Nos. NPF-87 and NPF-89) and the CPSES Offsite Dose Calculation Manual (ODCM), enclosed is the Semiannual Radioactive Effluent Release Report which covers the six month reporting period from January 1, 1993 through June 30, 1993.

The tabular summaries of radioactive liquid and gaseous releases are provided in the format defined in Appendix B of Regulatory Guide 1.21, Rev. 1, dated June, 1974.

During this six month reporting period there were changes to the CPSES ODCM; therefore, as required by Section 6.14c of the ODCM, a complete copy of the entire ODCM (Revision 8), current as of June 30, 1993, is included as Attachment 8.1 to the subject report.

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400 N. Olive Street L.B. 81 Dallas, Texas 75201

Comanche Peak Steam Electric Station

Units 1 and 2

Semiannual Radioactive Effluent Release Report

January 1, 1993 - June 30, 1993

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## 1.0 INTRODUCTION

This Semiannual Radioactive Effluent Release Report, for Comanche Peak Steam Electric Station Unit 1 and Unit 2, is submitted as required by Technical Specification 6.9.1.4 and Offsite Dose Calculation Manual (ODCM) Administrative Control 6.9.1.4 for the period January 1, 1993, through June 30, 1993.

Information pertaining to the following areas is included in this report:

- A summary of the quantities of radioactive liquid and gaseous effluents released from Unit 1 and Unit 2 during the reporting period in the format outlined in Appendix B of Regulatory Guide 1.21, Revision 1, June 1974.
- A summary of solid waste shipped from Unit 1 and Unit 2 in the format shown in Appendix B of Regulatory Guide 1.21, Revision 1, June 1974, supplemented with additional categories: class of waste (per 10CFR61), type of container (Strong Tight, HIC) and shipped and buried volumes and curies.
- An explanation of why inoperable liquid or gaseous effluent monitoring instrumentation was not corrected within 30 days.
- Changes to the ODCM in the form of a complete, legible copy of the entire ODCM.
- A listing of new locations for dose calculations and/or environmental monitoring identified by the Land Use Census.
- A description of the events leading to liquid holdup tanks or gas storage tanks exceeding Technical Specification limits.
- A list and description of abnormal releases of radioactive material from the site to unrestricted areas.
- A description of resin releases to the LVW Pond.
- A description of major changes to radioactive waste treatment systems (liquid, gaseous and solid).

## 2.0 SUPPLEMENTAL INFORMATION

### 2.1 Regulatory Limits

The ODCM Radiological Effluent Control limits applicable to the release of radioactive material in liquid and gaseous effluents are described in the following sections:

#### 2.1.1 Fission and Activation Gases (Noble Gases)

The dose rate due to radioactive materials released in gaseous effluents from the site to areas at and beyond the site boundary shall be limited to less than or equal to 500 mrem/yr to the whole body and less than or equal to 3000 mrem/yr to the skin.

The air dose due to noble gases released in gaseous effluents, from each unit, to areas at and beyond the site boundary shall be limited to the following:

- a. During any calendar quarter: Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation, and
- b. During any calendar year: Less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

#### 2.1.2 Iodine-131, Iodine-133, Tritium and Radioactive Material in Particulate Form

The dose rate due to iodine-131, iodine-133, tritium and all radionuclides in particulate form with half lives greater than 8 days, released in gaseous effluents from the site to areas at and beyond the site boundary, shall be limited to less than or equal to 1500 mrem/yr to any organ.

The dose to a MEMBER OF THE PUBLIC from iodine-131, iodine-133, tritium and all radionuclides in particulate form with half lives greater than 8 days, in gaseous effluents released, from each unit, to areas at and beyond the site boundary, shall be limited to the following:



- a. During any calendar quarter: Less than or equal to 7.5 mrem to any organ, and
- b. During any calendar year: Less than or equal to 15 mrem to any organ.

#### 2.1.3 Liquid Effluents

The concentration of radioactive material released in liquid effluents to unrestricted areas shall be limited to the concentrations specified in 10 CFR Part 20, Appendix B, Table 2, Column 2 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to  $2.0E-04$   $\mu\text{Ci/ml}$  total activity.

The dose or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released, from each unit, to unrestricted areas shall be limited:

- a. During any calendar quarter to less than or equal to 1.5 mrem to the whole body and to less than or equal to 5 mrem to any organ, and
- b. During any calendar year to less than or equal to 3 mrem to the whole body and to less than or equal to 10 mrem to any organ.

#### 2.1.4 LVW Pond Resin Inventory

The quantity of radioactive material contained in resins transferred to the LVW pond shall be limited by the following expression:

$$(264/V) \cdot \sum_j A_j/C_j < 1.0$$

excluding tritium, dissolved or entrained noble gases and radionuclides with less than an 8 day half life, where:

- $A_j$  = pond inventory limit for a single radionuclide  $j$  (Curies),
- $C_j$  = 10CFR20, Appendix B, Table 2 Column 2, concentration for a single radionuclide  $j$  ( $\mu\text{Ci/ml}$ ),

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### 8.0 ATTACHMENTS

- 8.1 Offsite Dose Calculation Manual For TU Electric Comanche Peak Steam Electric Station Units 1 and 2, Revision 8

## ACRONYMS AND ABBREVIATIONS

CFR	Code of Federal Regulations
CPSES	Comanche Peak Steam Electric Station
ECL	Effluent Concentration Limit
LHMT	Laundry Holdup and Monitor Tanks
LVW	Low Volume Waste
ODCM	Offsite Dose Calculation Manual
PET	Primary Effluent Tanks
REC	Radiological Effluent Control
SORC	Station Operations Review Committee
WHUT	Wastewater Holdup Tanks
WMT	Waste Monitor Tanks



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Finally, a copy of the current CPSES Process Control Program (PCP), Revision 2 issued March, 1993, is also enclosed for your information.

Sincerely,

William J. Cahill, Jr.

By: 

D. R. Woodlan  
Docket Licensing Manager

CLW/grp  
Enclosures

c - Mr. J. L. Milhoan, Region IV (clo)  
Resident Inspectors, CPSES (2) (clo)  
Mr. T. A. Bergman, NRR w/att 8.1 and PCP