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Group Vice President, Nuclear

U. S. Nuclear Regulatory Commission
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Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
ENVIRONMENTAL PROTECTION PLAN
ANNUAL ENVIRONMENTAL OPERATING REPORT FOR 1994

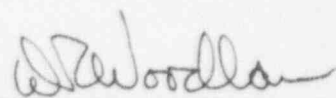
Dear Sirs:

Pursuant to Section 5.4.1 of the Environmental Protection Plan (Appendix B to CPSES Unit 1 and Unit 2 Facility Operating License Nos. NPF-87 and NPF-89, respectively), TU Electric hereby submits the CPSES 1994 Annual Environmental Operating Report in the attachment to this letter.

If you have any questions, please contact Richard S. Berk at (214) 812-8952.

Sincerely,

C. L. Terry

By: 
D. R. Woodlan
Docket Licensing Manager

RSB/
Attachment

cc: Mr. L. J. Callan, Region IV
Mr. D. F. Kirsch, Region IV
Mr. T. J. Polich, NRR
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COMANCHE PEAK STEAM ELECTRIC STATION

UNITS 1 & 2

1994

ANNUAL ENVIRONMENTAL OPERATING REPORT

(NONRADIOLOGICAL)

FACILITY OPERATING LICENSE NOS. NPF-87 & 89

1. INTRODUCTION

This report describes implementation of the Environmental Protection Plan (EPP) for the calendar year 1994 as required by Appendix B to Facility Operating License Nos. NPF-87 & 89 for Units 1 & 2.

During 1994, the CPSES Nonradiological Environmental Monitoring Program was effective in implementing and monitoring all CPSES's environmental regulatory commitments. Program effectiveness was substantiated by environmental audits conducted in 1994 by the Texas Natural Resource Conservation Commission (TNRCC), in-house compliance visits by Environmental Services (TU Services) and compliance evaluations conducted by CPSES Nuclear Overview Department. The audits conducted by the TNRCC revealed no program deficiencies and observations noted were promptly addressed.

In addition to routine environmental monitoring to meet existing CPSES environmental permit requirements, some noteworthy environmental projects were accomplished. For example:

- (1). Implemented the Source Reduction/Waste Minimization (SR/WM) Plan in 1994 for reducing hazardous waste generation. Sources of hazardous waste are being evaluated on an on-going basis to define additional means for reducing waste generation.
- (2). CPSES completed remediation of approximately 3700 cu. yds. of petroleum contaminated soil at the on-site fuel island. The incident that created the contaminated soil was reported in the 1993 Annual Report. All contaminated soil was treated to less than 200 ppm total petroleum hydrocarbons (TPH) by on-site thermal processing and the project was completed in August, 1994. The remediation criteria that was employed was in accordance with TNRCC Risk Reduction Rules Subchapter S Clean-up Criteria No. 2 for each constituent of Benzene, Toluene, Ethylbenzene, and Xylene (BTEX).
- (3). CPSES has completed the impingement and entrainment monitoring of the circulating water intake structure on aquatic biota. Work is continuing on Squaw Creek Reservoir population surveys and development of the final report. The program was implemented under the provisions of Section 316(b) of the Clean Water Act. The CPSES Final Environmental Statement required that this program be initiated after Unit 2 Operating license.

- (4) During 1994 CPSES spread topsoil and revegetated approximately 60 acres of the site peninsula that were disturbed during construction activities. The commitment to revegetate these areas was identified in the CPSES Environmental Report -- Operating License Stage (ER-OL Amend. 1, response to staff question 75) and Final Environmental Statement (Section 4.3.1). A few small areas remain to be topsoiled and revegetated. These areas will be addressed as old construction facilities are removed.

II. SCOPE

Section 5.4.1 of the EPP requires that CPSES submit to the NRC an Annual Environmental Operating Report that shall address the following environmental protection activities:

- A. Summaries and analyses of the results of the environmental protection activities required by Section 4.2 of the EPP, including a comparison with related preoperational studies, operational controls (as appropriate), and previous nonradiological environmental monitoring reports, and an assessment of the observed impacts of plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, a detailed analysis of the data and a proposed course of mitigating action is required. Section 4.2 of the EPP pertains to results from:
 1. Groundwater levels and station water use monitoring.
 2. Water treatment facility outages impact assessment and reporting.
- B. The report shall also include:
 1. A list of EPP noncompliances and the associated corrective actions.
 2. A list of all changes in station design and operation, tests, and experiments made in accordance with Subsection 3.1 of the EPP which involved a potentially significant unreviewed environmental question.
 3. A list of nonroutine reports submitted in accordance with Subsection 5.4.2 of the EPP.
 4. A summary list of National Pollutant Discharge Elimination System (NPDES) permit-related reports relative to matters identified in Subsection 2.1 of the EPP which were submitted to the EPA Region VI during the report period. Subsection 2.1 of the EPP pertains to aquatic matters that are addressed by the effluent limitations, monitoring requirements and the

Section 316(b) demonstration requirement (effects of intake structure on aquatic biota during operation) contained in the EPA NPDES station wastewater discharge permit.

III. RESULTS OF ACTIVITIES

- A. As required by Subsection 4.2 of the EPP, the following are summaries and analyses of the results of the environmental protection activities during 1994. Based on the results of these activities, there were no observed adverse environmental impacts resulting from plant operation during 1994.

1. Groundwater Pumpage

As indicated in Table 1, groundwater pumpage during 1994 averaged 44.2 gals./min. (gpm) or 23,215,100 total gallons withdrawn for the year. This withdrawal rate represents a 55% increase over the 1993 average rate of 28.5 gpm.

Average monthly withdrawal rates fluctuated from a low of 28.2 gpm in January to a high of 52.4 gpm in September. Monthly pumpage rates were consistently higher than 1993 monthly rates. CPSES continues to investigate the causes for these higher rates and some leaks have been discovered and repaired which should help rates to trend downward. Sections of the distribution system where carbon steel piping was originally installed is continuing to be phased-out by replacement with more corrosion resistant material. Only a small portion of the distribution system currently contains carbon steel piping.

All groundwater withdrawn during 1994 was used for potable and sanitary purposes only and no groundwater was used to supplement the station's Surface Water Treatment System.

The average annual pumpage rate of 44.2 gpm for 1994 represents 35% of the predicted operational pumpage (127 gpm) identified in Section 3.3 of the Station's Environmental Report - Operational License Stage. This rate also represents approximately 28% of the actual average withdrawal rate (158 gpm) reported in the Station's Final Environmental Statement - Operating License Stage 9 Section 5.3.1.2) for the period 1975 to May 1979.

The combined annual rate for all recorded preoperational groundwater pumpage averaged 68.8 gpm, while the average operational pumpage for the

period 1990 through 1994 was 33.2 gpm. Therefore, the average operational rates are 52% less than the groundwater pumpage during the preoperational period. Figure 1 illustrates the annual fluctuation of groundwater withdrawal over the entire preoperational and operational period.

2.0 Groundwater Levels

As indicated in Table 2, the groundwater level in the on-site observation well OB-3 (intersection of Highway 56 and the Plant Access Road) fluctuated during 1994 from a high level in March of 537.5 ft. Mean Sea Level (MSL) to a low level in September of 531.1 ft. MSL. Overall the water level in OB-3 during the reporting period (January through December) decreased 0.6 ft. (0.2m)

The groundwater level in observation well OB-4 (Squaw Creek Park) fluctuated during 1994 from a high level in April and May of 579.7 ft. MSL to a low level in November of 574.9 ft. MSL. Overall, the water level in OB-4 during the reporting period decreased 1.3 ft. (0.4m).

The 1994 annual average groundwater levels in well OB-3 and OB-4 were 534.9 ft. MSL and 577.9 ft. MSL, respectively. These average levels demonstrated a decline of 2.2 ft. (0.67 m) for OB-3 and 2.4 ft. (0.73 m) for OB-4 from the respective average 1993 levels (Figure 2).

3. Surface Water Treatment System Operation

The station's Water Treatment System processed 216, 706, 200 total gallons (412 gpm) of surface water during 1994 for plant process use. There were no outages during 1994 that required reporting in accordance with Section 4.2.2 of the EPP.

The following is a summary list of monthly surface water usage.

MONTH	SURFACE WATER PROCESSED, GALS.
JANUARY	21,268,500
FEBRUARY	16,160,400
MARCH	18,528,100
APRIL	18,222,800
MAY	18,594,000
JUNE	18,347,200
JULY	18,532,700
AUGUST	18,189,700
SEPTEMBER	17,907,600
OCTOBER	17,765,300
NOVEMBER	18,113,800
DECEMBER	15,076,100
TOTAL	216,706,200

B. EPP Noncompliance and Corrective Actions-subsection 5.4.1(1)

There were no noncompliances with the requirements of the EPP during the reporting period.

C. Changes In Station Design or Operation, Tests, and Experiments Made in Accordance With Subsection 3.1 Which Involved a Potentially Significant Unreviewed Environmental Question

There were no changes in station design or operation, nor tests or experiments conducted during the reporting period that are reportable under this subsection.

D. Nonroutine Reports Submitted In Accordance With Subsection 5.4.2

There were no nonroutine reports submitted under this Subsection.

E. NPDES Permit-Related Reports Relative to Matters Identified In Subsection 2.1

Routine monthly Discharge Monitoring Reports (DMR) for all wastewater outfalls were submitted to the EPA and TNRCC for each month during 1994. The following is a summary list of correspondence (DMRs) submitted to the EPA.

MONTH MONITERED	LOG NUMBER/DATE
JANUARY	TXX-94063 / 2-24-94
FEBRUARY	TXX-94098 / 3-25-94
MARCH	TXX-94120 / 4-25-94
APRIL	TXX-94146 / 5-25-94
MAY	TXX-94174 / 6-24-94
JUNE	TXX-94202 / 7-25-94
JULY	TXX-94234 / 8-25-94
AUGUST	TXX-94258 / 9-23-94
SEPTEMBER	TXX-94282 / 10-25-94
OCTOBER	TXX-94314 / 11-23-94
NOVEMBER	TXX-94336 / 12-22-94
DECEMBER	TXX-95209 / 1-25-95

There were six (6) wastewater discharge permit non-compliances in 1994. These non-compliances are described below.

1. In July, 1994, three non-compliances were reported for Outfall 002 (Reservoir Discharge to Squaw Creek). Two of these non-compliances resulted from exceeding the permitted discharge temperature limit of 93 °F. The temperature limit was exceeded as a result of discharging from near the surface of the Squaw Creek Reservoir (above thermocline). The condition was corrected by changing to a deeper discharge gate at the reservoir outlet tower. The third non-compliance for Outfall 002 resulted from exceeding the sample hold time for total dissolved solids analysis.

Prior to the July non-compliances, CPSES had recorded twenty two (22) consecutive months without a non-compliance.

Note: Outfall 002 has been eliminated under the new November 01, 1994 NPDES permit. The most recent TNRCC Draft permit also eliminates Outfall 002.

2. Three non-compliances were reported for Outfall 201 (Once-Through Cooling Water) during 1994; one in September and two October, 1994. The September non-compliance resulted from a failure to analyze a sample for Free Available Chlorine (FAC). The sample was analyzed for Total Residual Chlorine (TRC) and the analysis revealed a compliant TRC concentration of 0.1 mg/l. Therefore, the FAC would have also been compliant, had the sample been analyzed for FAC.

The two October non-compliances resulted from a failure to collect the required weekly sample for this outfall. Consequently, there were no analyses performed to verify compliance with the TRC and FAC limitations. Due to unexpected equipment outage, the chlorination system was only operable during the first day of the monitoring period (Sunday) and was not available for sampling during the remainder of the week when samples are routinely collected.

Two spills occurred during 1994 that required notification to the TNRCC within 24 hours. These incidents were verbally reported to the NRC and the National Response Center.

The first reportable spill occurred on April 7, 1994 when a hydraulic line ruptured at the Lake Granbury Pump Station. This incident resulted in a release of approximately 10 gallons of hydraulic fluid to Lake Granbury. Personnel were dispatched to perform clean-up activities.

The second reportable spill occurred on May 18, 1994 as a result of a sulfuric acid feed system tubing failure. This incident released approximately 220 gallons of sulfuric acid to the ground at the Wastewater Management System. All spilled materials was neutralized and removed.

TABLE 1
SUMMARY OF GROUNDWATER PUMPAGE
For 1994

MONTH	PLANT WELL 1			PLANT WELL 2			NOSF WELL 1			NOSF WELL 2			TOTALS		NO OF DAYS BETWEEN READINGS
	TOTAL	Gals. Per Min.	AVG	TOTAL	Gals. Per Min.	AVG	TOTAL	Gals. Per Min.	AVG	TOTAL	Gals. Per Min.	AVG	TOTAL	Gals. Per Min.	
January	1,130,100		25.32	0		0.00	62,100		1.39	64,700		1.45	1,256,900		31
February	850,700		21.10	256,900		6.37	55,600		1.38	63,500		1.57	1,226,700		28
March	0		0.00	1,250,800		28.02	65,200		1.46	83,500		1.87	1,399,500		31
April	0		0.00	0		38.15	67,900		1.57	72,600		1.68	1,788,600		30
May	0		0.00	1,858,400		41.63	67,400		1.51	69,800		1.56	1,995,600		31
June	0		0.00	2,060,900		47.71	50,600		1.17	67,300		1.56	2,178,800		30
July	0		0.00	2,105,800		47.17	82,000		1.84	89,800		2.01	2,277,600		31
August	444,100		9.95	1,660,600		37.20	66,800		1.50	78,400		1.76	2,249,900		31
Sept.	1,116,400		25.84	1,016,700		23.53	66,500		1.54	62,800		1.45	2,262,400		30
October	1,182,100		26.48	1,003,800		22.49	69,400		1.55	49,900		1.12	2,305,200		31
November	1,488,300		35.45	461,300		10.75	43,800		1.01	51,200		1.18	2,047,600		30
December	2,119,000		47.47	0		0.00	63,400		1.42	43,900		0.98	2,226,300		31
TOTAL	8,330,700		15.85	13,326,300		25.35	760,700		1.45	797,400		1.52	23,215,100		365

TABLE 2
1994 SUMMARY OF GROUNDWATER
LEVELS IN OBSERVATION WELLS

MONTH	WELL OB-3 (G-3)		WELL OB-4 (G-4)	
	DEPTH (1)	MSL (2)	DEPTH (1)	MSL (2)
January	(3) 257.8	536.0	272.5	578.3
February	(3) 257.1	536.7	272.3	578.5
March	256.3	537.5	271.7	579.1
April	(3) 256.8	537.0	271.1	579.7
May	(3) 256.4	537.4	271.1	579.7
June	(3) 257.8	536.0	271.2	579.6
July	(3) 259.6	534.2	271.7	579.1
August	(3) 262.1	531.7	274.1	576.7
September	(3) 262.7	531.1	275.9	574.9
October	(3) 261.8	532.0	275.3	575.5
November	(3) 259.9	533.9	274.4	576.4
December	(3) 258.4	535.4	273.8	577.0

ANNUAL GROUNDWATER LEVEL CHANGE FOR 1994:

Well OB-3: 257.8 ft. - 258.4 ft. = (-) 0.6 ft. = (-) 0.2 m (Decline)

Well OB-4: 272.5 ft. - 273.8 ft. = (-) 1.3 ft. = (-) 0.4 m (Decline)

NOTES:

- (1) Depth to water table (ft.).
- (2) Water table elevation (ft.) Mean Sea Level (MSL)
- (3) Levels represent average levels based on weekly readings taken when previous month pumpage exceeds 30 gpm.

FIGURE 1
SUMMARY OF GROUNDWATER PUMPAGE
1975 THROUGH 1994 (GPM)

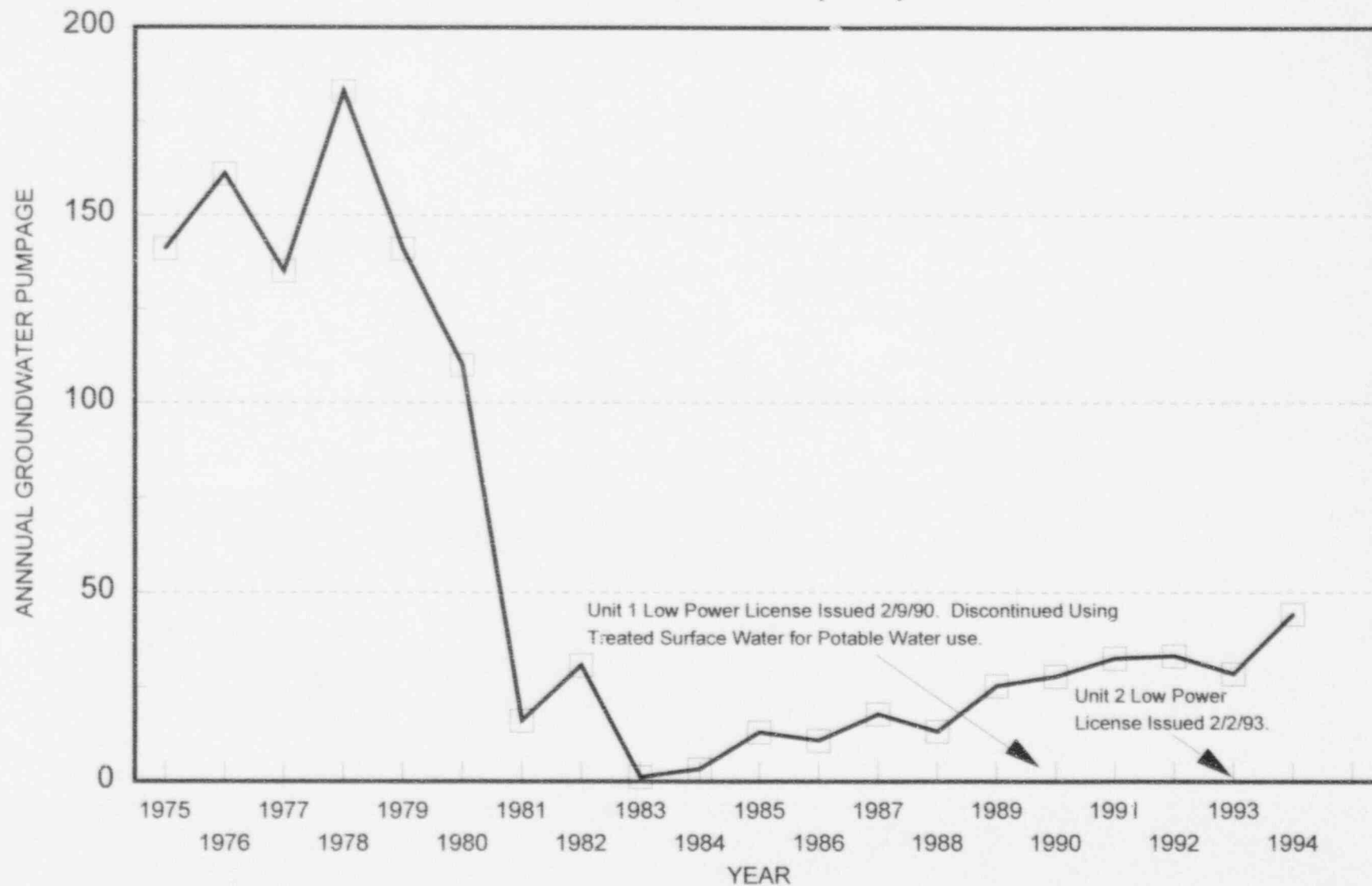


FIGURE 2
ANNUAL AVERAGE GROUNDWATER LEVEL

