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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT
DOCKET NOS. 50-445/446
SUBMITTAL OF THE ANNUAL NON-RADIOLOGICAL
ENVIRONMENTAL OPERATING REPORT FOR 2009.

Dear Sir or Madam:

Luminant Generation Company LLC (Luminant Power) hereby submits for Comanche Peak Nuclear Power Plant (CPNPP), the enclosed copy of the Annual Non-Radiological Environmental Operating Report for the CPNPP Radiological Environmental Monitoring Program. This report is submitted pursuant to Appendix B of the CPNPP Unit 1 and 2 Operating License Nos. NPF-87 and NPF-89. The report covers the period from January 1, 2009 through December 31, 2009 and summarizes the results of measurements and analysis of data obtained from samples collected during this interval.

This communication contains no new licensing basis commitments regarding CPNPP Units 1 and 2.

If there are any questions regarding this report, contact Steve Dixon at (254) 897-5482 or Bruce Turner at (254) 897-8901.

Sincerely,

Luminant Generation Company LLC

Rafael Flores

By: 

Fred W. Madden
Director, Oversight & Regulatory Affairs

A member of the STARS (Strategic Teaming and Resource Sharing) Alliance

Callaway · Comanche Peak · Diablo Canyon · Palo Verde · San Onofre · South Texas Project · Wolf Creek

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Enclosure - Annual Non-Radiological Environmental Operating Report for 2009
Attachments - Figure 1, "Summary of Groundwater Pumpage 1975 through 2009 (gpm)"
Figure 2, "Annual Average Groundwater Level 1980 through 2009"

c - E. E. Collins, Region IV
L. K. Gibson, NRR
Resident Inspectors, Comanche Peak

LUMINANT POWER
COMANCHE PEAK NUCLEAR POWER PLANT
UNITS 1 & 2
2009
ANNUAL ENVIRONMENTAL OPERATING REPORT
(NON-RADIOLOGICAL)
FACILITY OPERATING LICENSE NOS. NPF-87 & 89

I. INTRODUCTION

This report describes implementation of the Environmental Protection Plan (EPP) for the calendar year 2009 as required by Appendix B to Facility Operating License Nos. NPF-87 & 89 for Comanche Peak Nuclear Power Plant (CPNPP) for Units 1 & 2.

During 2009, the CPNPP Nonradiological Environmental Monitoring Program was effective in implementing and monitoring all CPNPP environmental regulatory commitments. Program effectiveness in 2009 was substantiated by Luminant Corporate environmental audits and compliance evaluations of the CPNPP environmental program.

II. SCOPE

Section 5.4.1 of the EPP requires that CPNPP 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 Texas Pollutant Discharge Elimination System (TPDES) permit related reports relative to matters identified in Subsection 2.1 of the EPP which were submitted to the Texas Commission on Environmental Quality (TCEQ) during the report period. Subsection 2.1 of the EPP pertains to aquatic matters that are addressed by the effluent limitations, and the monitoring requirements contained in the TCEQ TPDES 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 environmental protection activities during 2009. Based on the results of these activities, there were no observed adverse environmental impacts resulting from plant operation during 2009.

1. Groundwater Pumpage

As indicated in Table 2, groundwater pumpage during 2009 averaged 14.3 gals /min. (gpm) or 7,488,200 total gallons withdrawn for the year. This withdrawal rate represents a 7.5% increase from the 2008 average rate of 13.3 gpm. Groundwater withdrawal was highest in October at 20.3 gpm and lowest in April with an average monthly withdrawal rate of 10.8 gpm.

Groundwater withdrawn during 2009 was used primarily for potable and sanitary purposes with only a very small amount used as make-up to the plant fire protection system. No groundwater was used to supplement the station's Surface Water Treatment System.

The average annual pumpage rate of 14.3 gpm for 2009 represents 11.3% 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 9.1 % of the actual average withdrawal rate (158 gpm) reported in the Station's Final Environmental Statement - Operating License Stage (Section 5.3.1.2) for the period 1975 to May 1979.

The combined annual rate for all recorded pre-operational groundwater pumpage averaged 68.8 gpm, while the average operational pumpage for the period 1990 through 2009 was 24.23 gpm.. Therefore, the average operational rates are 64.8% less than the groundwater pumpage during the preoperational period. Figure 1 illustrates the annual fluctuation of groundwater withdrawal over the entire pre-operational and operational period.

2. Groundwater Levels

As indicated in Table 1, the groundwater level in the on-site observation well OB-3 (intersection of Highway 56 and the Plant Access Road) fluctuated during 2009 from a low level in August of 513.43ft. Mean Sea Level (MSL) to a high level in December of 517.73ft. MSL. Overall, the water level in OB-3 during the reporting period (January through December) increased 1.4 ft. (0.43m).

The 2009 annual average groundwater levels in wells OB-3 and OB-4 were 515.63ft.MSL and 542.97ft. MSL, respectively. These average levels demonstrated a decrease of 1.4 ft (0.43m) for OB-3 and a decrease of 1.45 ft. (0.44m) for OB-4 from the respective average 2008 levels (Figure 2).

As illustrated by Table 2, ground water levels increased during the reporting period. This increase coincided with increased rainfall of 37.26 inches during 2009 as compared to 24.18 inches in 2008.

3. Surface Water Treatment System Operation

The station's Water Treatment System processed 265,317,000 total gallons (505 gpm) of surface water during 2009 for plant process use. There were no outages during 2009 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	21,351,000
FEBRUARY	20,477,400
MARCH	23,027,900
APRIL	20,996,800
MAY	16,491,300
JUNE	21,021,200
JULY	23,656,500
AUGUST	21,942,200
SEPTEMBER	24,416,100
OCTOBER	25,862,200
NOVEMBER	20,719,000
DECEMBER	25,355,400
TOTAL	265,317,000

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, operation, 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

Other than those nonroutine reports identified in section III.E, there were no other nonroutine reports submitted under this subsection.

E. Texas Pollutant Discharge Elimination System (TPDES) Permit-Related Reports Relative To Matters Identified In Subsections 2.1 and 5.4.1

1. Routine monthly Discharge Monitoring Reports (DMR) for all wastewater outfalls were submitted to the Texas Commission on Environmental Quality (TCEQ) for each month during 2009. The following is a summary list of correspondence pertaining to DMRs and TPDES permit related documents.

Month Monitored	Log Number/Date
January	TXE-09034 02/12/2009
February	TXE-09047 03/16/2009
March	TXE-09063 04/13/2009
April	TXE-09073 05/07/2009
May	TXE-09080 06/08/2009
June	TXE-09088 07/08/2009 TXX-09091 (Biomonitoring Report for 01/01/2009-06/30/2009)
July	TXE-09102 08/12/2009
August	TXE-09116 09/14/2009
September	TXE-09132 10/15/2009
October	TXE-09140 11/16/2009
November	TXE-09147 12/14/2009
December	TXE-10008 01/14/2010 TXE-10011 (Biomonitoring Report for 07/01/2009-12/31/2009)

2. Current biomonitoring in reduced status in accordance with TPDES Permit. The 1/year 7-day Fathead Minnow (*Pimephales promelas*) Survival and Growth Test was passed. The chronic testing using an invertebrate species is required 1/6 months. The first 7-day *Ceriodaphnia dubia* Survival and Reproduction Test was invalid due to insufficient neonate production resulting from elevated Total Dissolved Solids (TDS) in the source water, Squaw Creek Reservoir. In accordance with an agreement with TCEQ, a 4-day *Daphnia magna* Survival and Growth Test was conducted and passed. Due to continued elevated source water TDS in the autumn, the *D. magna* test was again utilized and passed during the second monitoring period. Acute 24-hour screen tests with appropriate invertebrates and the fathead minnow were also passed during each semi-annual monitoring period. The Company currently has a TPDES Permit Application pending which includes the agreed alternate invertebrate species test, the 4-day *D. magna* Survival/Growth test for use when the reservoir TDS is elevated.

3. There were no TPDES wastewater discharge permits or noncompliances in 2009.
4. There were also no reportable spills during 2009.

TABLE 1

**2009 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	277.5	516.33	301.37	546.51
February	279.3	514.53	305.32	542.56
March	277.2	516.63	300.54	547.34
April	276.7	517.13	299.67	548.21
May	277.3	516.53	299.68	548.20
June	279.3	514.53	303.28	544.60
July	279.9	513.93	312.13	535.75
August	280.4	513.43	314.98	532.90
September	279.4	514.43	311.73	536.15
October	278.2	515.63	307.61	540.27
November	277.1	516.73	302.64	545.24
December	276.1	517.73	299.92	547.96

ANNUAL GROUNDWATER LEVEL CHANGE FOR 2009:

Well OB-3: 277.5 ft. - 276.1 ft. = 1.4 ft. = 0.43 m (increase)

Well OB-4: 301.37 ft. - 299.92 ft. = 1.45 ft. = 0.44 m (increase)

NOTES:

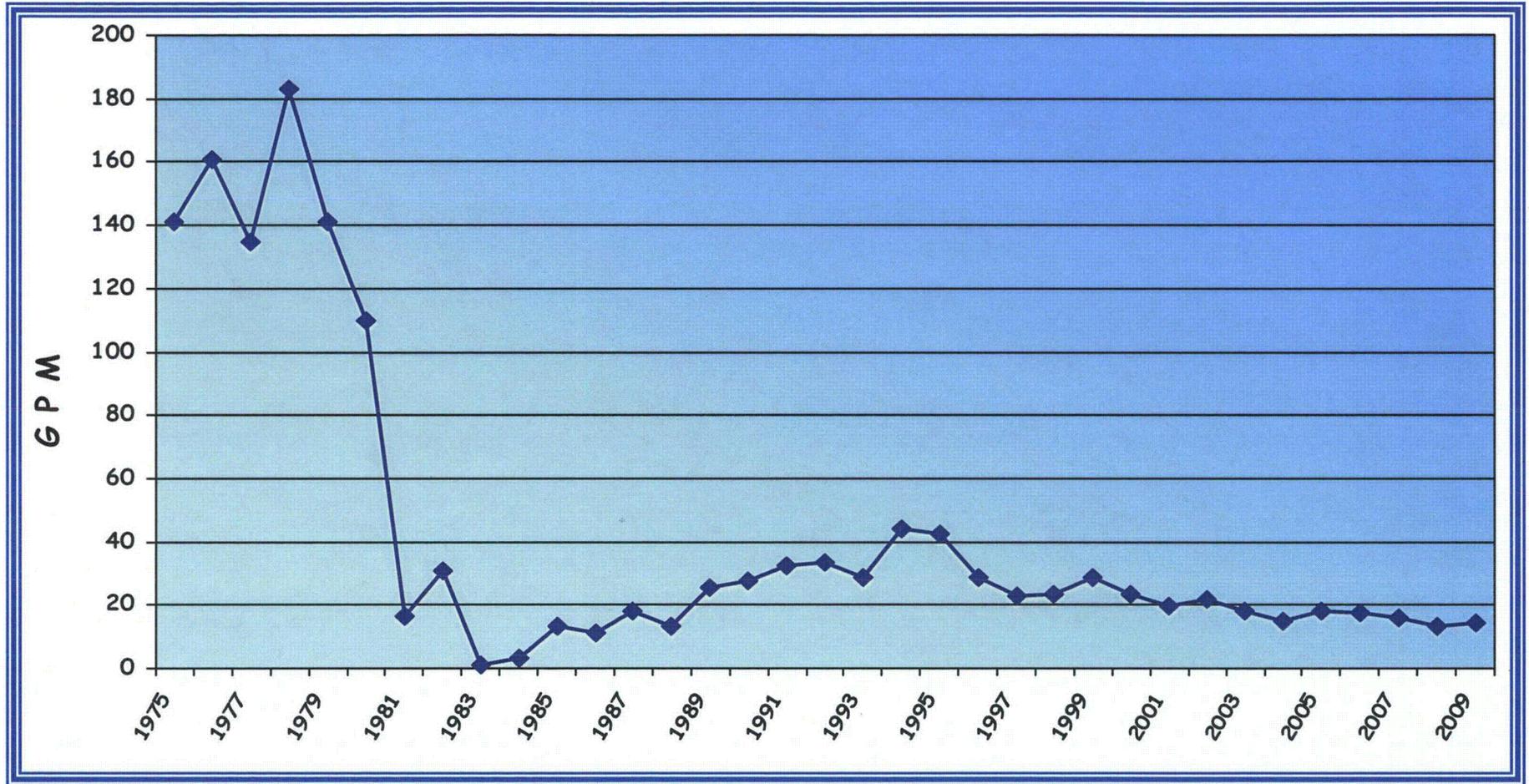
- (1) Depth to water table (ft.)
- (2) Water table elevation (ft.) Mean Sea Level (MSL)

Table 2
SUMMARY OF GROUNDWATER PUMPAGE
For 2009

Month	PLANT WELL 1		PLANT WELL 2		NOSF WELL 1		NOSF WELL 2		REC/TRAINING		TOTALS		NO. OF DAYS BETWEEN READINGS
	Total Gals.	Avg. Gal. Per Min.	Total Gals.	Avg. Gal. Per Min.									
January	335,500	7.5	138,200	3.1	47,300	1.1	41,300.0	0.9	1,900	0.0	564,200	12.6	31
February	150,900	3.7	443,100	11.0	41,000	1.0	38,800	1.0	2,100	0.1	675,900	16.8	28
March	396,200	8.9	0	0.0	39,900	0.9	45,900	1.0	3,300	0.1	485,300	10.9	31
April	141,100	3.3	258,500	6.0	32,700	0.8	33,100	0.8	2,600	0.1	468,000	10.8	30
May	358,900	8.0	63,400	1.4	23,200	0.5	37,500	0.8	2,300	0.1	485,300	10.9	31
June	429,300	9.9	0	0.0	42,100	1.0	86,300	2.0	1,100	0.0	558,800	12.9	30
July	212,300	4.8	243,700	5.5	82,800	1.9	54,400	1.2	2,400	0.1	595,600	13.3	31
August	426,500	0	246,600	5.5	65,700	1.5	93,600	2.1	2,300	0.1	834,700	18.7	31
September	646,700	15.0	8,200	0.2	57,100	1.3	54,100	1.3	1,700	0.0	767,800	17.8	30
October	826,200	18.5	0	0.0	39,000	0.9	39,500	0.9	1,700	0.0	906,400	20.3	31
November	542,000	0	0	0.0	35,000	0.8	33,200	0.8	1,700	0.0	611,900	14.2	30
December	459,700	10.3	0	0.0	34,500	0.8	38,900	0.9	1,200	0.0	534,300	12.0	31
Total	410,442	7.5	116,808	2.7	45,025	1.0	49,717	1.1	2,025	0.0	7,488,200	14.3	365

FIGURE 1
SUMMARY OF GROUNDWATER PUMPAGE
1975 THROUGH 2009 (GPM)

Annual Groundwater Pumpage



1. 2/8/90 - Unit #1 Operational. Discontinued using treated surface water for potable use.
2. 2/2/93 - Unit #2 Operational

FIGURE 2
ANNUAL AVERAGE GROUNDWATER LEVEL
1980 through 2009

