



TXU Energy
Comanche Peak Steam
Electric Station
P.O. Box 1002 (E01)
Glen Rose, TX 76043
Tel: 254 897 5209
Fax: 254 897 6652
mike.blevins@txu.com

Mike Blevins
Senior Vice President & Principal Nuclear Officer

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February 27, 2004

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
ANNUAL OPERATING REPORT FOR 2003

Gentlemen:

Attached is the CPSES Annual Operating Report for 2003 prepared and submitted pursuant to guidance provided in C.1.b of U.S. NRC Regulatory Guide 1.16, Revision 4. The attachment also submits the annual Occupational Radiation Exposure Report as required by Technical Specification 5.6.1 contained in Appendix A to the Comanche Peak Steam Electric Station Unit 1 Operating License NPF-87 and Unit 2 Operating License NPF-89.

If you have any questions, please contact Mr. Douglas W. Snow at (254) 897-8448.

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PAGE 2 OF 2

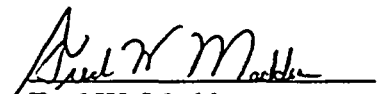
This communication contains no new licensing basis commitments regarding CPSES Units 1 and 2.

Sincerely,

TXU Generation Company LP

By: TXU Generation Management Company LLC
Its General Partner

Mike Blevins

By: 
Fred W. Madden
Nuclear Licensing Manager

DWS/dws

Attachment

c - B. S. Mallet, Region IV
W. D. Johnson, Region IV
M. C. Thadani, NRR
Resident Inspectors, CPSES

Mail Original copy of Personnel Exposure & Monitoring Report to:
Ms. Sheryl Burrows, REIRS Project Manager
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, DC 20555

1.0 SUMMARY OF OPERATING EXPERIENCE

The Comanche Peak Steam Electric Station (CPSES) is a dual unit pressurized water reactor power plant, supplied by Westinghouse Electric Corporation. It is located in Somervell County in North Central Texas approximately 65 miles southwest of the Dallas-Fort Worth Metropolitan area. Each generating unit core was originally designed for a warranted power output of 3411 Megawatt thermal (MWt). This output, combined with the reactor coolant pump heat output of 14 MWt, gives a warranted NSSS output of 3425 MWt, which is the license application rating. Both units rated thermal power was subsequently increased to 3458 MWt, which represents a 1.4 percent increase in core output (from 3411 to 3458 MWt). The reactor coolant pump heat output considered in the safety analysis was increased to approximately 16 MWt for both units. All safety systems, including the engineered safety features, are designed for operations at a maximum NSSS output of 3579 MWts and an associated maximum core output of 3565 MWt

1.1 CPSES UNIT 1

CPSES Unit 1 achieved initial criticality on April 3, 1990. Initial power generation occurred on April 24, 1990, and the plant was declared commercial on August 13, 1990. Since being declared commercial, CPSES Unit 1 has generated 108,985,123 net Megawatt-hours (MWH) of electricity as of December 31, 2003, with a net unit capacity factor of 80.8% (using MDC). The unit and reactor availability factors were 87.2% and 90.4%, respectively, for the year 2003.

There was no refueling outage for Unit 1 during 2003.

Figure 1.1-1 provides the generation profile of the average daily net electrical output of Unit 1 for 2003. Table 1.1-1 is a compilation of the monthly summaries of the operating data and Table 1.1-2 contains the yearly and total summaries of the operating data.

During this reporting period there were no failures or challenges to the Safety Valves.

1.2 CPSES UNIT 2

CPSES Unit 2 achieved initial criticality on March 24, 1993. Initial power generation occurred on April 9, 1993, and the plant was declared commercial on August 3, 1993. Since being declared commercial, CPSES Unit 2 has generated 87,055,302 net Megawatt-hours (MWH) of electricity as of December 31, 2003, with a net unit capacity factor of 82.9% (using MDC). The unit and reactor availability factors were 88.0% and 91.2%, respectively, for the year 2003.

On October 4, 2003, the unit began the power ramp down for its seventh refueling outage. The unit entered the refueling outage on the same day.

During the refueling outage, 84 fresh fuel assemblies were loaded for Cycle 8. The refueling outage lasted 25 days and ended on October 29, 2003. Unit 2 reached 100% power on November 6, 2003.

During the refueling outage, the major work scope completed included:

- Reactor Vessel BMI and Alloy 600 Inspections
- Inspect and replace one RCP cartridge seal
- Minor Inspection of Main Generator and exciter.
- Emergency Diesel Generator replacement of four cylinder liners.
- 50% Eddy Current Testing on two Steam Generators
- Digital Turbine Generator upgrade
- Fuel Corrosion (Oxide) Measurements to Support the Elevated pH Program

Figure 1.2-1 provides the generation profile of the average daily net electrical output of Unit 2 for 2003. Table 1.2-1 is a compilation of the monthly summaries of the operating data and Table 1.2-2 contains the yearly and the total summaries of the operating data

During this reporting period there were no failures or challenges to the Safety Valves.

2.0 OUTAGES AND REDUCTIONS IN POWER

2.1 CPSES UNIT 1

Table 2.1 describes unit operating experience including unit shutdowns and provides explanations of significant dips in average power levels for CPSES Unit 1.

2.2 CPSES UNIT 2

Table 2.2 describes unit-operating experience including unit shutdowns and provides explanations of significant dips in average power levels for CPSES Unit 2.

3.0 EXPOSURE AND MONITORING REPORT

The personnel exposure and monitoring report for CPSES is provided in Table 3.0.

4.0 IRRADIATED FUEL INSPECTION RESULTS

4.1 CPSES UNIT 1

There were no irradiated fuel inspections performed on Unit 1 fuel in 2003.

4.2 CPSES UNIT 2

During refueling outage 2RF07, visual examinations of Unit 2, Cycle 7 fuel assemblies were performed by inspection personnel by viewing the assemblies from the edge of Spent Fuel Pool #2 as assemblies were off-loaded from the core. Visual underwater camera exams were also performed on selected assemblies as part the oxide measurement campaign performed during the outage in support of the demonstration elevated pH program.

From the inspections discussed above, all fuel assemblies appeared to be in good condition with no anomalies observed. During the underwater camera examinations performed during the oxide measurement campaign, the surface of the rods in the lower duty/burnup assemblies generally appeared to contain less crud than observed during underwater camera inspections performed during previous outages. However, some of the higher duty/burnup assemblies contained "streaks" of crud in the upper portion of the fuel assembly.

Fuel Clad Corrosion (Oxide) Measurements:

Review of 2RF06 Results:

During the previous Unit 2 refueling outage (2RF06), eight fuel assemblies were inspected for crud deposition and cladding corrosion (oxide thickness). The purpose of this exam was to benchmark crud and corrosion performance before implementation of an elevated RCS pH program in Unit 2 beginning in Cycle 7. All assemblies measured were of the Framatome ANP design with optimized zircaloy-4 clad. The measured oxide thickness results were generally as expected with some minor crud deposition observed on most fuel assemblies. A few specific locations contained darker, thicker crud.

2RF07 Results:

The purpose of the oxide measurements performed during 2RF07 was to determine if there had been any significant increase in oxide thickness which could have resulted from operation of the demonstration elevated pH program during Cycle 7. Unit 2, Cycle 7 was operated at a reactor coolant pH_i of 7.3 with a maximum lithium concentration of 5 ppm. During this oxide measurement campaign, oxide measurements were again performed on Framatome ANP fuel assemblies that were measured during 2RF06 and on four once-burned Westinghouse supplied fuel assemblies containing ZIRLO™ clad. The Westinghouse supplied assemblies were loaded fresh during 2RF06.

Based on the results of the oxide measurements, the continuation of the demonstration elevated pH program for U2C8 operation was approved. The results of the oxide measurements and crud observations and comparisons to previous campaigns and vendor predictions were reviewed with no significant adverse trends observed. There were no other issues identified that precluded an increase in the pH program for U2C8 operation. Therefore, based upon the review of the data, the continuation of the demonstration Unit 2 elevated pH program was approved and implemented at a constant pH_i of 7.4 with a maximum lithium concentration of 6 ppm.

A report containing raw oxide measurement data and a summary of the results and conclusions of the oxide measurement campaign during 2RF07 was transmitted to the Nuclear Regulatory Commission on January 25, 2004 (TXU Energy letter TXX-04016).

5.0 OUTAGE RELATED SINGLE RADIOACTIVITY RELEASE OR RADIATION EXPOSURE TO AN INDIVIDUAL THAT ACCOUNTS FOR MORE THAN 10 PERCENT OF ALLOWABLE ANNUAL VALUES

CPSES Units 1 and 2 did not experience any single release of radioactivity greater than 10% of an allowable dose limit during an outage or forced reduction in power of over 20% of designed power level during 2003.

During 2003 Unit 2 conducted a refueling outage (see section 1.2). During the outage activities, no individual received radiation exposure exceeding 10% of an allowable dose limit in a single exposure event. Exposure is tabulated in Table 6.0.

FIGURE 1.1-1
COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 1
GENERATION PROFILE
AVERAGE DAILY UNIT POWER LEVEL for 2003

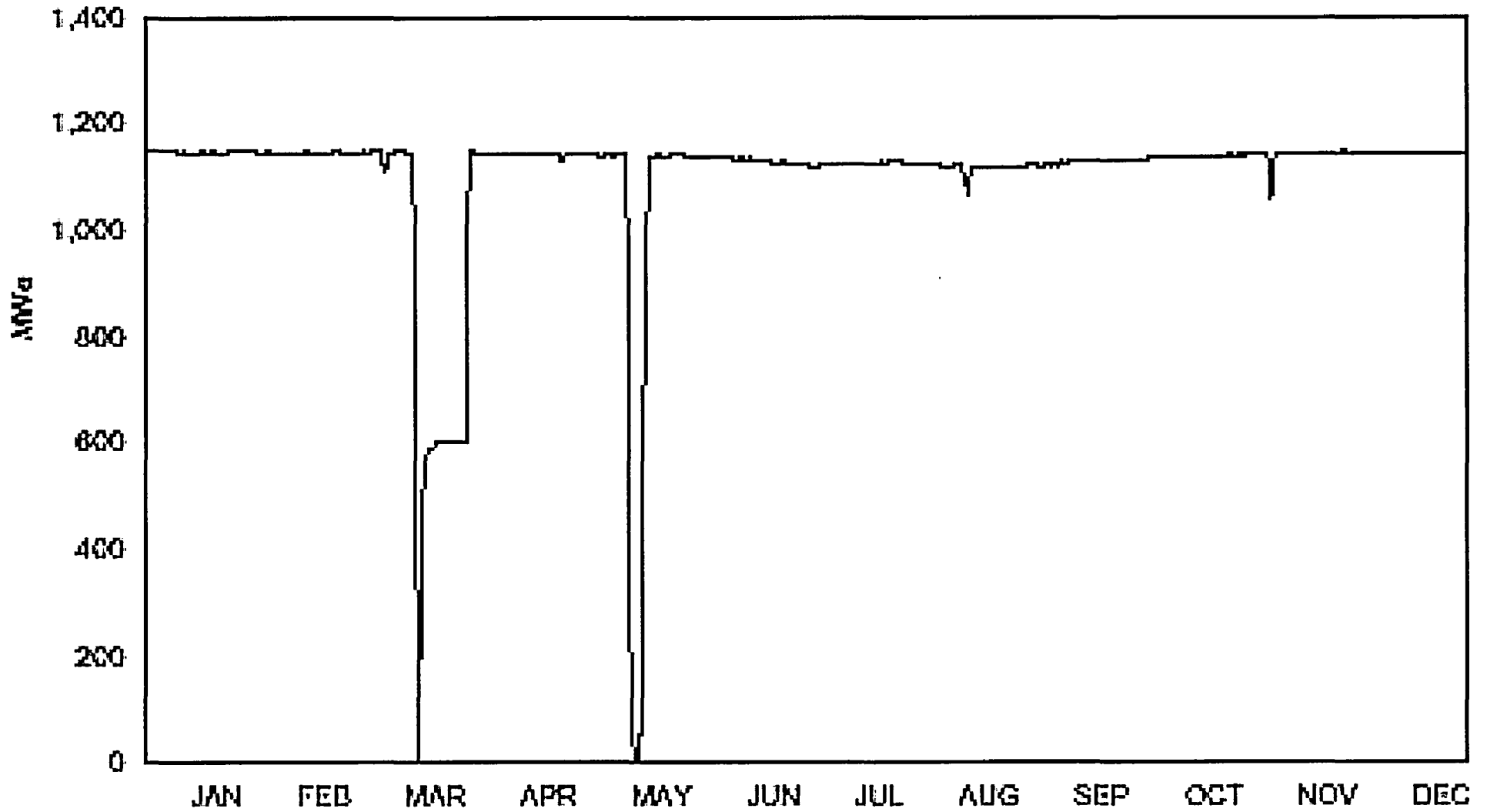


TABLE 1.1-1 (PAGE 1 OF 2)
 COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 1
 MONTHLY ELECTRIC POWER GENERATION DATA (2003)

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>
Hours RX was Critical	744	672	727.6	719.0	672.4	720
RX Reserve Shutdown Hours	0	0	0	0	0	0
Hours Generator On-line	744	672	719.1	719.0	662.2	720
Unit Reserve Shutdown Hours	0	0	0	0	0	0
Gross Thermal Energy Generated (MWH)	2,569,380	2,321,038	1,993,313	2,482,903	2,237,614	2,486,938
Gross Electric Energy Generated (MWH)	884,945	798,346	672,342	853,610	765,695	847,178
Net Electric Energy Generated (MWH)	852,609	769,134	641,276	821,591	734,011	814,668
RX Service Factor (%)	100.0	100.0	97.8	100.0	90.4	100.0
RX Availability Factor (%)	100.0	100.0	97.8	100.0	90.4	100.0
Unit Service Factor (%)	100.0	100.0	96.7	100.0	89.0	100.0
Unit Availability Factor (%)	100.0	100.0	96.7	100.0	89.0	100.0
Unit Capacity Factor(% , using MDC net)	99.7	99.5	75.0	99.4	85.8	98.4
Unit Capacity Factor(% , using DER net)	99.7	99.5	75.0	99.4	85.8	98.4
Unit Forced Outage Rate (%)	0.0	0.0	3.3	0.0	0.0	0.0
Hours in Month	744	672	744	719	744	720

TABLE 1.1-1 (PAGE 2 OF 2)
 COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 1
 MONTHLY ELECTRIC POWER GENERATION DATA (2003)

	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Hours RX was Critical	744	744.0	720.0	745.0	720.0	744.0
RX Reserve Shutdown Hours	0	0.0	0.0	0.0	0	0
Hours Generator On-line	744	744.0	720.0	745.0	720.0	744.0
Unit Reserve Shutdown Hours	0	0	0	0	0	0
Gross Thermal Energy Generated (MWH)	2,569,747	2,564,875	2,486,184	2,573,429	2,471,971	2,569,728
Gross Electric Energy Generated (MWH)	870,587	865,623	843,926	881,215	849,116	883,484
Net Electric Energy Generated (MWH)	837,024	832,085	811,451	846,222	815,618	850,264
RX Service Factor (%)	100.0	100.0	100.0	100.0	100.0	100.0
RX Availability Factor (%)	100.0	100.0	100.0	100.0	100.0	100.0
Unit Service Factor (%)	100.0	100.0	100.0	100.0	100.0	100.0
Unit Availability Factor (%)	100.0	100.0	100.0	100.0	100.0	100.0
Unit Capacity Factor(% , using MDC net)	97.8	97.3	98.0	98.8	98.5	99.4
Unit Capacity Factor(% , using DER net)	97.8	97.3	98.0	98.8	98.5	99.4
Unit Forced Outage Rate (%)	0.0	0.0	0.0	0.0	0.0	0.0
Hours in Month	744	744	720	745	720	744

TABLE 1.1-2

COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 1
 ANNUAL ELECTRIC POWER GENERATION DATA (2003)

	YEAR	CUMULATIVE
Hours RX was Critical	8,672.0	103,185
RX Reserve Shutdown Hours	0.0	2,871
Hours Generator On-line	8,653.3	102,316
Unit Reserve Shutdown Hours	0	0
Gross Thermal Energy Generated (MWH)	29,327,119	339,433,298
Gross Electric Energy Generated (MWH)	10,016,067	113,921,660
Net Electric Energy Generated (MWH)	9,625,953	108,985,123
RX Service Factor (%)	99.0	87.9
RX Availability Factor (%)	99.0	90.4
Unit Service Factor (%)	98.8	87.2
Unit Availability Factor (%)	98.8	87.2
Unit Capacity Factor(% , using MDC net)	95.6	80.8
Unit Capacity Factor(% , using DER net)	95.6	80.8
Unit Forced Outage Rate (%)	0.3	3.0

FIGURE 1.2-1
 COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 2
 GENERATION PROFILE
 AVERAGE DAILY UNIT POWER LEVEL for 2003

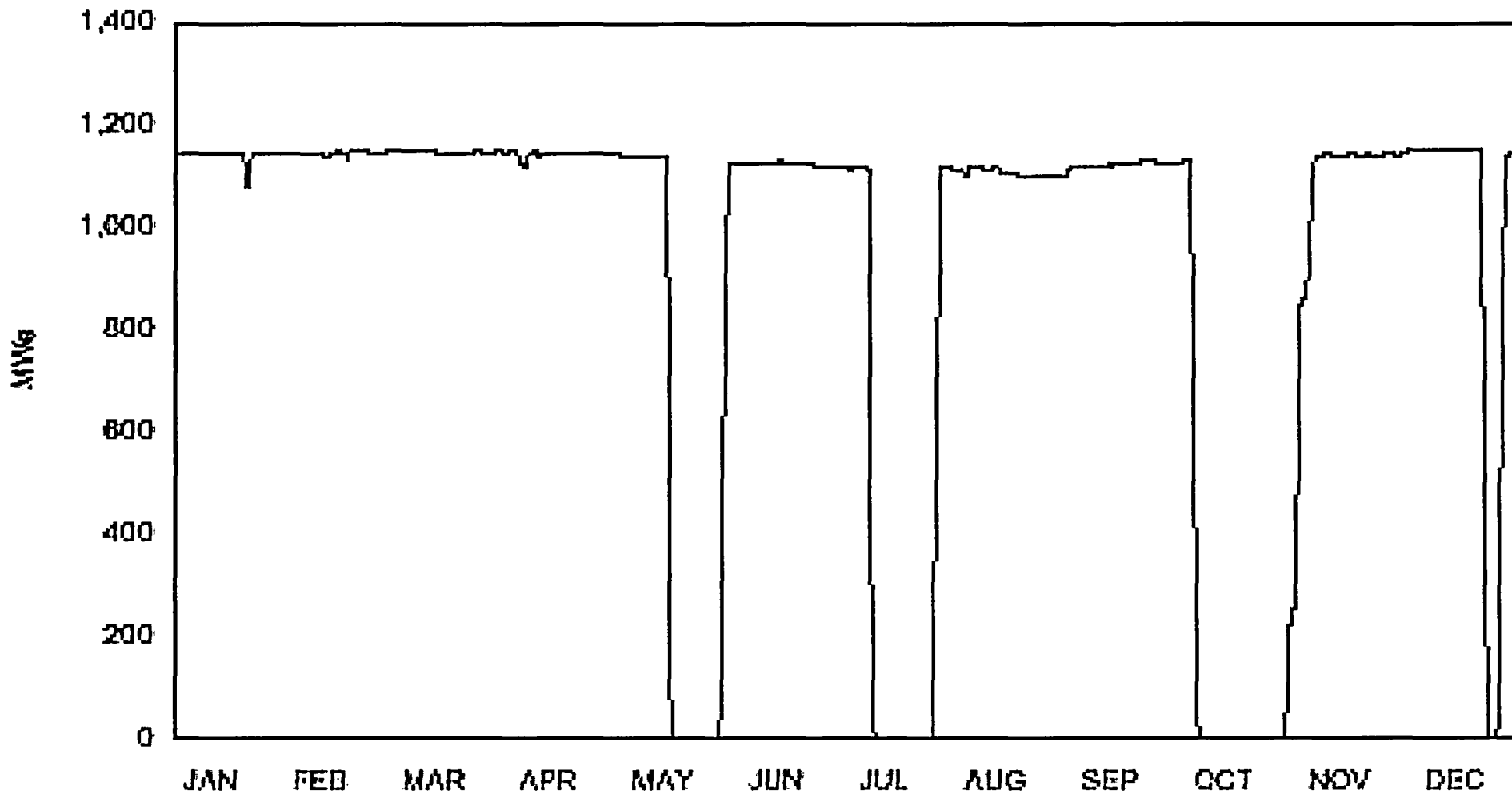


TABLE 1.2-1 (PAGE 1 OF 2)
 COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 2

MONTHLY ELECTRIC POWER GENERATION DATA (2003)

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>
Hours RX was Critical	744	672	744.0	719.0	411.0	720.0
RX Reserve Shutdown Hours	0	0	0	0	0	0
Hours Generator On-line	744	672	744.0	719.0	398.2	720.0
Unit Reserve Shutdown Hours	0	0	0	0	0	0
Gross Thermal Energy Generated (MWH)	2,560,486	2,315,078	2,567,032	2,475,564	1,320,086	2,465,263
Gross Electric Energy Generated (MWH)	883,813	799,510	886,240	854,238	452,051	842,521
Net Electric Energy Generated (MWH)	851,597	770,225	853,833	821,864	422,165	809,240
RX Service Factor (%)	100.0	100.0	100.0	100.0	55.2	100.0
RX Availability Factor (%)	100.0	100.0	100.0	100.0	55.2	100.0
Unit Service Factor (%)	100.0	100.0	100.0	100.0	53.5	100.0
Unit Availability Factor (%)	100.0	100.0	100.0	100.0	53.5	100.0
Unit Capacity Factor(% , using MDC net)	99.5	99.7	99.8	99.4	49.3	97.7
Unit Capacity Factor(% , using DER net)	99.5	99.7	99.8	99.4	49.3	97.7
Unit Forced Outage Rate (%)	0.0	0.0	0.0	0.0	0.0	0.0
Hours in Month	744	672	744	719	744	720

TABLE 1.2-1 (PAGE 2 OF 2)
 COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 2
 MONTHLY ELECTRIC POWER GENERATION DATA (2003)

	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Hours RX was Critical	357.6	744.0	720.0	169.5	720	662.0
RX Reserve Shutdown Hours	0	0	0	0	0	0
Hours Generator On-line	338.6	744.0	720.0	138.1	720	650.4
Unit Reserve Shutdown Hours	0	0	0	0	0	0
Gross Thermal Energy Generated (MWH)	1,117,992	2,547,907	2,473,497	337,438	2,381,926	2,179,147
Gross Electric Energy Generated (MWH)	376,945	856,295	842,366	110,841	823,542	755,006
Net Electric Energy Generated (MWH)	348,869	822,417	809,059	97,540	792,991	723,560
RX Service Factor (%)	48.1	100.0	100.0	22.7	100.0	89.0
RX Availability Factor (%)	48.1	100.0	100.0	22.7	100.0	89.0
Unit Service Factor (%)	45.5	100.0	100.0	18.5	100.0	87.4
Unit Availability Factor (%)	45.5	100.0	100.0	18.5	100.0	87.4
Unit Capacity Factor(% , using MDC net)	40.8	96.1	97.7	11.4	95.8	84.6
Unit Capacity Factor(% , using DER net)	40.8	96.1	97.7	11.4	95.8	84.6
Unit Forced Outage Rate (%)	54.5	0.0	0.0	0.0	0.0	12.6
Hours in Month	744	744	720	745	720	744

TABLE 1.2-2

COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 2
ANNUAL ELECTRIC POWER GENERATION DATA (2003)

	YEAR	CUMULATIVE
Hours RX was Critical	7,383.1	80,836
RX Reserve Shutdown Hours	0	2,366
Hours Generator On-line	7,308.2	80,286
Unit Reserve Shutdown Hours	0	0
Gross Thermal Energy Generated (MWH)	24,741,416	267,076,710
Gross Electric Energy Generated (MWH)	8,483,368	90,781,110
Net Electric Energy Generated (MWH)	8,123,390	87,055,302
RX Service Factor (%)	84.3	88.6
RX Availability Factor (%)	84.3	91.2
Unit Service Factor (%)	83.4	88.0
Unit Availability Factor (%)	83.4	88.0
Unit Capacity Factor(% , using MDC net)	80.6	82.9
Unit Capacity Factor(% , using DER net)	80.6	82.9
Unit Forced Outage Rate (%)	6.4	3.1

TABLE 2.1 (PAGE 1 OF 1)
 COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 1
 UNIT OPERATING EXPERIENCE INCLUDING SHUTDOWNS AND POWER REDUCTIONS DURING 2003

NO	DATE	TYPE		DURATION* (HOURS)	REASON	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER	CORRECTIVE ACTION/COMMENTS
		F: FORCED	S: SCHEDULED				
1	030316	F		24.87	A	2	On March 16, at 2149 hours, the Condensate Pump 1-01 tripped, this caused the Feedwater Pumps to trip and a manual reactor trip was initiated. On March 17, at 2241 hours, Unit 1 sync to grid and ramped to approximately 57% power. Unit held at 57% power during pump motor repair. Motor was reinstalled and ramp to full power began on March 30 at 2300. Unit reached full power on March 31 at 1252 hours. (Reference LER 1-03-002-00 & SMF-2003-000754)
2	030515	F		81.80	H	3	On May 15 at 0252 hours Unit 1 experienced an automatic reactor trip due to grid instability and the loss of the 345 KV Switchyard (dual unit trip). Lightning is the suspected cause of the switchyard loss. On May 18 at 1238 hours Unit 1 synchronized to the grid. On May 19 at 1620 hours Unit 1 reached full power. (Reference LER 1-03-003-00)

1) REASON

A: EQUIPMENT FAILURE (EXPLAIN)
 B: MAINT OR TEST
 C: REFUELING
 D: REGULATORY RESTRICTION

E: OPERATOR TRAINING AND LICENSE EXAMINATION
 F: ADMINISTRATIVE
 G: OPERATIONAL ERROR (EXPLAIN)
 H: OTHER (EXPLAIN)

2) METHOD

1: MANUAL
 2: MANUAL SCRAM
 3: AUTOMATIC SCRAM
 4: OTHER (EXPLAIN)

- INDICATES SHUTDOWN HOURS/OTHERWISE "NA" FOR NOT APPLICABLE

TABLE 2.2 (PAGE 1 OF 2)
 COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 2
 UNIT OPERATING EXPERIENCE INCLUDING SHUTDOWNS AND POWER REDUCTIONS DURING 2003

NO	DATE	TYPE F: FORCED S: SCHEDULED	DURATION* (HOURS)	REASON	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER	CORRECTIVE ACTION/COMMENTS
1	030515	F	345.80	H	3	On May 15 at 0252, Unit 2 experienced an automatic reactor trip due to grid instability and the loss of the 345 KV switchyard (dual unit trip). In a post trip inspection a primary water leak was found and repaired. On May 29 Unit 2 synchronized to the grid. On May 30 Unit 2 achieved full power.(Reference LER 1-03-003-00)
2	030709	F	395.10	A	3	On July 9 at 0108, Unit 2 had an automatic reactor scram due to a Phase B ground on RCP Motor stator. Unit taken to Mode 5 for repairs. Repairs were completed and the unit became critical on July 25 at 0333. The unit returned to service on July 25 at 1214. (Reference LER 446 03-001-00)
3	030725	F	10.30	H	4	On July 25 at 1317, the Unit 2 turbine was taken off line from 12% power due to lack of suction pressure on the Main Feedwater Pumps. The reactor remained critical in Mode 2. The unit returned to service at 2334 on the same day. The unit returned to full power on July 26 at 2350. (Reference LER 446 03-002-00)
4a	031004	S	606.95	C	1	On October 4 at 0900, Unit 2 began downpowering from full power. At 1127 on the same day the unit was tripped per procedure entering 2RF07. The refueling outage was completed and the unit returned to power operations with sync to grid on October 29, 2003 at 1724. At the end of the month the unit was at 43% power, ramping to the 45% power-testing plateau.

1) REASON

A: EQUIPMENT FAILURE (EXPLAIN)
 B: MAINT OR TEST
 C: REFUELING
 D: REGULATORY RESTRICTION

E: OPERATOR TRAINING AND LICENSE EXAMINATION
 F: ADMINISTRATIVE
 G: OPERATIONAL ERROR (EXPLAIN)
 H: OTHER (EXPLAIN)

2) METHOD

1: MANUAL
 2: MANUAL SCRAM
 3: AUTOMATIC SCRAM
 4: OTHER (EXPLAIN)

* INDICATES SHUTDOWN HOURS/OTHERWISE "NA" FOR NOT APPLICABLE

TABLE 2.2 (PAGE 2 OF 2)
 COMANCHE PEAK STEAM ELECTRIC STATION - UNIT 2
 UNIT OPERATING EXPERIENCE INCLUDING SHUTDOWNS AND POWER REDUCTIONS DURING 2003

NO	DATE	TYPE F: FORCED S: SCHEDULED	DURATION* (HOURS)	REASON	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER	CORRECTIVE ACTION/COMMENTS
4b	031101	S		C	1	Unit began the month of November at 43% power ramping to full power after completion of 2RF07. Unit reached full power on November 5 at 0912.
5	031222	F	93.62	A	3	On December 22 at 0827, the Unit 2 turbine and reactor tripped due to an inspection plate that fell and made contact with the generator exciter. The plate caused arcing and smoke in the exciter and an automatic turbine/reactor trip. Immediate inspection determined there was no fire but there was damage to the fuses and diodes on the exciter "A" rectifier wheel. After repairs were completed the unit returned to power operations with sync to the grid on December 26 at 0604 and returned to full power on December 27 at 1615. (Reference LER 2-03-005-00)

1) REASON

- A: EQUIPMENT FAILURE (EXPLAIN)
- B: MAINT OR TEST
- C: REFUELING
- D: REGULATORY RESTRICTION

- E: OPERATOR TRAINING AND LICENSE EXAMINATION
- F: ADMINISTRATIVE
- G: OPERATIONAL ERROR (EXPLAIN)
- H: OTHER (EXPLAIN)

2) METHOD

- 1: MANUAL
- 2: MANUAL SCRAM
- 3: AUTOMATIC SCRAM
- 4: OTHER (EXPLAIN)

* INDICATES SHUTDOWN HOURS/OTHERWISE "NA" FOR NOT APPLICABLE

TABLE 3.0
COMANCHE PEAK STEAM ELECTRIC STATION - UNITS 1 AND 2
2003 PERSONNEL EXPOSURE AND MONITORING REPORT

Work & Job Function	#Personnel			Total Person rem		
	Station	Utility	Contract	Station	Utility	Contract
Reactor Operations & Surveillance						
Maintenance & Construction	93	0	48	0.418	0.000	0.131
Operations	218	0	103	2.768	0.000	0.210
Health Physics & Lab	44	0	36	1.327	0.000	0.230
Supervisory & Office Staff	20	0	2	0.067	0.000	0.037
Engineering Staff	78	0	25	0.565	0.000	0.062
Routine Plant Maintenance						
Maintenance & Construction	165	0	328	3.830	0.000	21.061
Operations	131	0	16	3.211	0.000	0.430
Health Physics & Lab	34	0	69	1.073	0.000	3.787
Supervisory & Office Staff	11	0	0	0.147	0.000	0.000
Engineering Staff	50	0	73	0.986	0.000	8.228
In-service Inspection						
Maintenance & Construction	15	0	25	0.276	0.000	0.445
Operations	15	0	3	0.104	0.000	0.086
Health Physics & Lab	2	0	8	0.051	0.000	0.087
Supervisory & Office Staff	1	0	0	0.003	0.000	0.000
Engineering Staff	9	0	64	0.551	0.000	5.718
*Special Plant Maintenance						
Maintenance & Construction	21	0	100	0.046	0.000	0.650
Operations	20	0	3	0.289	0.000	0.003
Health Physics & Lab	5	0	4	0.018	0.000	0.002
Supervisory & Office Staff	2	0	0	0.014	0.000	0.000
Engineering Staff	5	0	11	0.012	0.000	0.053
Waste Processing						
Maintenance & Construction	9	0	13	0.008	0.000	0.104
Operations	17	0	4	0.143	0.000	0.228
Health Physics & Lab	29	0	6	0.356	0.000	0.024
Supervisory & Office Staff	0	0	0	0.000	0.000	0.000
Engineering Staff	1	0	0	0.032	0.000	0.000
Refueling						
Maintenance & Construction	49	0	33	0.206	0.000	1.141
Operations	32	0	4	0.482	0.000	0.012
Health Physics & Lab	18	0	45	0.552	0.000	1.320
Supervisory & Office Staff	2	0	0	0.004	0.000	0.000
Engineering Staff	16	1	45	0.340	0.001	10.311
Totals						
Maintenance & Construction	352	0	547	4.786	0.000	23.532
Operations	433	0	133	6.997	0.000	0.969
Health Physics & Lab	132	0	168	3.377	0.000	5.450
Supervisory & Office Staff	36	0	2	0.234	0.000	0.037
Engineering Staff	159	1	218	2.487	0.001	24.371
Grand Totals	1112	1	1068	17.881	0.001	54.359

* Design Modifications

TABLE 6.0

2003 COMANCHE PEAK STEAM ELECTRIC STATION - UNITS 1 AND 2

OUTAGE RELATED RADIATION EXPOSURE TO AN INDIVIDUAL FOR A SINGLE MAINTENANCE ACTIVITY WHICH EXCEEDS 10 PERCENT OF AN ALLOWABLE ANNUAL DOSE LIMIT*

<u>Maintenance Activity</u>	<u>Department</u>	<u>Individual's Single Event Exposure (mrem)</u>	<u>Total Annual Exposure (mrem)</u>
N/A	N/A	N/A	N/A

No activities exceeded the allowable 10 percent dose limit.

*Subject annual dose limit is 5000 mrem deep dose equivalent