LUMINANT

COMANCHE PEAK NUCLEAR POWER PLANT

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT FOR 2008

JANUARY 1, 2008 through DECEMBER 31, 2008

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I. Introduction

Results of the Radiological Environmental Monitoring Program for the Comanche Peak Nuclear Power Plant (CPNPP) for the year 2008 are contained within this report. This report covers the period from January 1, 2008 through December 31, 2008 and summarizes the results of measurements and analysis of data obtained from environmental samples collected during this same timeframe.

A. Site and Station Description

CPNPP consists of two pressurized water reactor units, each designed to operate at a power level of about 1250 megawatts (electrical). The Station is located on Squaw Creek reservoir in Somervell and Hood counties, about forty miles southwest of Fort Worth, Texas. Unit 1 received a low power operating license February 8, 1990 and achieved initial criticality on April 3, 1990. A full power license for Unit 1 was issued on April 17, 1990 and commercial operation was declared on August 13, 1990. Unit 2 achieved initial criticality on March 24, 1993 and synchronized to the electrical grid on April 9, 1993.

B. Objectives and Overviews of the CPNPP Radiological Environmental Monitoring Program

The United States Nuclear Regulatory Commission (USNRC) regulations require that nuclear power plants be designed, constructed, and operated to keep levels of radioactive material in effluents to unrestricted areas as low as reasonably achievable (ALARA). To assure that these criteria are met, each license authorizing reactor operation includes technical specifications governing the release of radioactive effluents.

In-plant monitoring is used to assure that these predetermined release limits are not exceeded. However, as a precaution against unexpected and undefined processes that might allow undue accumulation of radioactivity in any sector of the environment, a program for monitoring the plant environs is also included.

Sampling locations were selected on the basis of local ecology, meteorology, physical characteristics of the region, and demographic and land use features of the site vicinity. The radiological environmental monitoring program was designed on the basis of the USNRC Branch Technical Position "An Acceptable Radiological Environmental Monitoring Program" on radiological environmental monitoring issued by the Radiological Assessment Branch, Revision 1 (November 1979), the CPSES Technical Specification "Comanche Peak Steam Electric Station Units 1 and 2 Technical Specifications" and the "CPSES Offsite Dose Calculation Manual" (ODCM).

In 2008, the Radiological Environmental Monitoring Program included the following:

- The measurement of ambient gamma radiation by thermoluminescent dosimetry;
- The determination of airborne gross beta, gamma emitters, and Iodine-131;
- The determination of tritium and gamma emitters in surface water;
- The determination of gross beta, tritium, Iodine-131, and gamma emitters in drinking water;
- The determination of tritium and gamma emitters in ground water;
- The determination of gamma emitters in sediment and fish;
- The determination of gamma emitters in food products and;
- The determination of gamma emitters and Iodine-131 in broadleaf vegetation.

The regulations governing the quantities of radioactivity in reactor effluents allow nuclear power plants to contribute, at most, only a small percentage increase above normal background radioactivity. Background levels at any one location are not constant but vary with time as they are influenced by external events such as cosmic ray bombardment, weapons test fallout, and seasonal variations. These levels also can vary spatially within relatively short distances reflecting variations in geological composition. To differentiate between background radiation levels and increases resulting from operation of CPNPP, the radiological surveys of the plant environs were divided into pre-operational and operational phases.

The pre-operational phase of the program provided a general characterization of the radiation levels and concentrations prevalent in these areas prior to plant operation along with an indication of the degree of natural variation to be expected. The operational phase of the program obtains data which, when considered along with the data obtained in the pre-operational phase, assists in the evaluation of the radiological impact of plant operation.

Pre-operational measurements were conducted at CPNPP from 1981 to 1989. These pre-operational measurements were performed to:

- Evaluate procedures, equipment, and techniques;
- Identify potentially important pathways to be monitored after plant operation;
- Measure background levels and the variations along potentially important pathways;
- Provide baseline data for statistical comparisons with future operational analytical results.

The operational Radiological Environmental Monitoring Program is conducted to:

- Verify that measurable concentrations of radioactive materials and levels of radiation are not higher than expected on the basis of the effluent measurements and modeling of the environmental exposure pathways;
- Verify the effectiveness of in-plant measures used for controlling the release of radioactive materials;
- Identify changes in the areas at and beyond the site boundary that may impact the principal pathways of exposure.

This report documents the seventeenth year of operational measurements and is submitted in accordance with the requirements of the CPSES Offsite Dose Calculation Manual, Part I, Administrative Control 6.9.1.3.

II. Program Descriptions and Results

A. Sample Locations

Within a radius of twenty miles of the CPNPP site there are seventy-two (72) sample locations included in the monitoring program for the year 2008. The number of sample points and the specific locations for the sample points were determined by considering locations where the highest off-site environmental concentrations have been predicted from plant effluent source terms, site hydrology, and site meteorological conditions. Other factors considered were applicable regulations, population distribution, and ease of access to sampling stations, availability of samples at desired locations, security and future program integrity. Additionally an annual land use census is conducted to identify changes in the areas surrounding the plant. If changes are identified that impact the principle pathways of exposure, appropriate changes to the radiological environmental monitoring program are implemented. A copy of the report "Comanche Peak Nuclear Power Plant Land Use Census 2008" is provided in Appendix A to this report.

Table 1 – Comanche Peak Nuclear Power Plant Radiological Environmental Monitoring Program for 2008 contains a brief outline of the current program. This table specifies the sample media type, the number of locations for each media type, the sector and distance identifier for each sample location, the sample frequency, the type of analysis required and the analytical frequency required.

Table 2 – Key To Environmental Sampling Locations provides a reference that links the sampling point designations used in procedures and forms to the appropriate physical sample location (sector and distance) and to the correct sample type. This cross-reference enhances the ability to review data and tie the data to the correct sample points and to ensure all samples are collected and analyzed as specified.

Currently there are no milk sample locations within ten miles of the CPNPP site and there are no milk sample locations within twenty miles that will participate in the environmental program. CPNPP already samples extra broadleaf locations as required due to no milk locations within the ten-mile radius therefore, no changes to the program are necessary. Milk sampling will be resumed if any future annual land use census determines a dairy has been established within the specified area.

Table 1 – Comanche Peak Nuclear Power Plant Radiological Environmental Monitoring Program for 2008

Media	Number of Locations	Identification by Sector and Distance (miles)	Sampling Frequency (a)	Analysis	Analytical Frequency (a)
Gamma Exposure	43	N-1.45; N-4.4; N-6.5; N-9.4; NNE-1.1; NNE-5.65; NE-1.7; NE-4.8; ENE-2.5; ENE-5.0; E-0.5; E-1.9; E-3.5; E-4.2; ESE-1.4; ESE-4.7; SE-1.3; SE-3.85; SE-4.6; SSE-1.3; SSE-4.4; SSE-4.5; S-1.5; S-4.2; SSW-1.1; SSW-4.4; SW-0.9; SW-4.8; SW-12.3; WSW-1.0; WSW-5.35; WSW-7.0; W-1.0; W-2.0; W-5.5; WNW-1.0; WNW-5.0; WNW-6.7; NW-1.0; NW-5.7; NW-9.9; NNW-1.35; NNW-4.6	Q, A	Thermoluminescent Dosimetry	Q, A
Air Particulate Air Iodine	8	N-9.4; E-3.5; SSE-4.5; SW-12.3; NW-1.0; N-1.45; SW/WSW-0.95; S/SSW-1.2	W	Gross Beta Gamma Isotopic Filter Gamma Isotopic Charcoal	W QC W
Surface Water	4	N-19.3; ESE-1.4; N-1.5; NE-7.4	M(b)	Gamma Isotopic Tritium	M QC
Surface Water/Drinking	2	NNW-0.1; N-9.9	M(c)	Gross Beta Gamma Isotopic Iodine-131 Tritium	M M M QC
Ground Water	5	SSE-4.6; W-1.2; WSW-0.1; N-9.8; N-1.45	Q	Gamma Isotopic Tritium	Q Q
Sediment	4	N-9.9; NNE-1.0; NE-7.4; SE-5.3	SA	Gamma Isotopic	SA
Fish	2	NNE-8.0; ENE-2.0	SA	Gamma Isotopic	SA
Food Products	1	ENE-9.0	MH	Gamma Isotopic Iodine-131	MH MH
Broadleaf Vegetation	3	N-1.45; SW-1.0; SW-13.5	M	Gamma Isotopic	M

(a) Frequency codes are: W–Weekly; M-Monthly; Q-Quarterly; QC-Quarterly Composite; MH-Monthly at Harvest; SA-Semiannual; A-Annual

(b) Surface water samples from Squaw Creek are monthly composites of weekly grab samples. Surface water samples from Lake Granbury are monthly grab samples.

(c) Surface water drinking samples are a monthly composite of weekly grab samples.

Table 2
Key To Environmental Sampling Locations

SAMPLING POINT	LOCATION (SECTOR-MILE)	SAMPLE TYPE*	SAMPLING POINT	LOCATION (SECTOR-MILE)	SAMPLE TYPE*
A1	N-1.45	A	R29	SW-12.3	R
A2	N-9.4	A	R30	WSW-1.0	R
A3	E-3.5	A	R31	WSW-5.35	R
A4	SSE-4.5	A	R32	WSW-7.0	R
A5	S/SSW-1.2	A	R33	W-1.0	R
A6	SW-12.3	A	R34	W-2.0	R
A7	SW/WSW-0.95	A	R35	W-5.5	R
A8	NW-1.0	A	R36	WNW-1.0	R
R1	N-1.45	R	R37	WNW-5.0	R
R2	N-4.4	R	R38	WNW-6.7	R
R3	N-6.5	R	R39	NW-1.0	R
R4	N-9.4	R	R40	NW-5.7	R
R5	NNE-1.1	R	R41	NW-9.9	R
R6	NNE-5.65	R	R42	NNW-1.35	R
R7	NE-1.7	R	R43	NNW-4.6	R
R8	NE-4.8	R	SW1	N-1.5	SW
R9	ENE-2.5	R	SW2	N-9.9	SW/DW
R10	ENE-5.0	R	SW3	N-19.9	SW
R11	E-0.5	R	SW4	NE-7.4	SW
R12	E-1.9	R	SW5	ESE-1.4	SW
R13	E-3.5	R	SW6	NNW-0.1	SW/DW
R14	E-4.2	R	GW1	W-1.2	GW/DW
R15	ESE-1.4	R	GW2	WSW-0.1	GW/DW
R16	ESE-4.7	R	GW3	SSE-4.6	GW/DW
R17	SE-1.3	R	GW4	N-9.8	GW/DW
R18	SE-3.85	R	GW5	N-1.45	GW/DW
R19	SE-4.6	R	SS1	NNE-1.0	SS
R20	SSE-1.3	R	SS2	N-9.9	SS
R21	SSE-4.4	R	SS3	NE-7.4	SS
R22	SSE-4.5	R	SS4	SE-5.3	SS
R23	S-1.5	R	F1	ENE-2.0	F
R24	S-4.2	R	F2	NNE-8.0	F
R25	SSW-1.1	R	FP1	ENE-9.0	FP
R26	SSW-4.4	R	BL1	N-1.45	BL
R27	SW-0.9	R	BL2	SW-1.0	BL
R28	SW-4.8	R	BL3	SW-13.5	BL

Sample Type*

A – AIR SAMPLE
F – FISH
SS – SHORELINE SEDIMENT
SW – SURFACE WATER
DW – DRINKING WATER
GW – GROUND WATER
R – DIRECT RADIATION
FP – FOOD PRODUCT
BL – BROADLEAF VEGETATION

B. Direct Radiation

Thermoluminescent dosimeters (TLDs) were used to determine the direct (ambient) radiation levels at the designated monitoring locations. The monitoring locations were chosen according to the criteria given in the USNRC Branch Technical Position on Radiation Monitoring (Revision 1, November 1979). The area around the station was divided into 16 radial sectors of 22-1/2 degrees each, corresponding to the cardinal points of the compass. TLDs were placed in each of these sectors. The thermoluminescent dosimeters were placed in two rings around the station. An inner ring was located as close as possible to the site boundary and an outer ring was located at a distance of 4 to 6 miles from the station. Eleven additional TLDs were located at points of special interest, including two control locations. For routine direct radiation measurements, two sets of the Panasonic CaSO4:Dy TLDs were used at each of the 43 monitoring locations. One set of TLDs was exchanged on a quarterly basis and a second set of TLDs was exchanged on a yearly basis. Additional sets of in-transit TLD's were used as control TLDs for the quarterly and annual TLDs.

The thermoluminescent dosimeters were processed on-site by CPNPP National Voluntary Laboratory Accreditation Program (NVLAP) Certified dosimetry personnel. Individual dosimeters were calibrated by exposure to an accurately known radiation field from a certified Cs-137 source. The year 2001 was the first year that CPNPP used the Panasonic TLD System to supply all the required direct radiation (ambient) monitoring. Dosimetry data for the year 2008 provided consistent results in support of the year 2001 dosimetry results previously obtained with the onsite dosimetry processing system.

D. C. Oakley's report "National Radiation Exposure in the United States", published in 1972, calculated a background radiation dose rate equivalent of 0.22 mr/day for the area surrounding Fort Worth, Texas. This calculated value varies widely with changes in location but represents an appropriate reference value to compare with actual measured TLD doses.

Using data from the pre-operational program for the two years prior to the startup of Unit 1, the quarterly TLDs averaged a calculated dose rate of 0.14 mr/day while the yearly TLDs averaged a calculated dose rate of 0.16 mr/day. The range of measured values from this same two-year period varied from a minimum of 0.11 mr/day to a maximum of 0.22 mr/day.

Table 3 – 2008 Environmental Direct Radiation Results contains the measured dose (mr) for each quarterly TLD from each of the 43 monitoring locations. The corresponding quarterly calculated dose rate (mr/day) values are listed as well. The statistical average doses (mr) and dose rate (mr/day) values for each set of quarterly TLDs is also displayed. Additionally, the table includes the total dose (mr) of all four quarters for each specific location. The table also includes the measured dose (mr) for each annual TLD from each of the 43 monitoring locations. The corresponding annual calculated dose rate (mr/day) values are listed as well. The statistical annual average dose (mr) for the entire set of annual TLDs is reported along with the average dose rate (mr/day) for the entire set of annual TLDs.

For the year 2008, the statistical average dose rate of all the quarterly TLD's was **0.0581** mr/day. The quarterly measured dose rates ranged from a minimum of **0.0005** mr/day to a maximum of **0.1264** mr/day. The statistical average dose rate of all the annual TLDs was **0.0600** mr/day. The annual measured dose rates ranged from a minimum of **0.000** mr/day to a maximum of **0.1640** mr/day. There was good agreement between the sum of the measured doses of the individual quarterly TLDs and the measured dose of the annual TLDs. The summation of the individual quarterly measured doses averaged **20.76** mr for all the forty three monitoring stations while the annual measured dose averaged **20.30** mr for all the monitoring stations.

Comparing the pre-operational data and operational data collected through the year 2008 did not produce any anomalies. The direct radiation dose data for 2008 was consistently lower than previous years of data during both the pre-operational program and the previous years of the operational program. The implementation of the Panasonic TLD system and the algorithms used to process the data from this new type TLDs accounts for the lower values as well as different type holders for the TLD's.

During the year 2008, there were two exception to the Direct Radiation Program.

For the first quarter of 2008, all quarterly TLD's were collected with the exception of R19, R6, R32, and R26. Also annual TLD's R26 and R32 were missing. All second quarter TLD's were placed in service on 3/27/08 with the exception of R7, R5, and R42. Due to weather conditions, the lake was inaccessible on that day. R7, R5, and R42 were placed in service on 4/1/08. New annual TLD's for R26 and R32 were placed in service on 4/1/08.

Two additional quarterly TLD's (R19 and R26) were found to be missing and were replaced on 4/5/08.

Smart form 2008-000939 was written.

For the second quarter of 2008, all TLD's were collected with the exception of R19 and R21. Annual TLD's for these locations were also missing. Quarterly TLD's were placed in service on 6/30/08 and annual TLD's were placed in service on 7/1/08.

Smart form 2008-002176 was written.

No abnormal quarterly results were obtained by either CPNPP or by the State of Texas, Bureau of Radiation Control.

Table 3 – 2008 Environmental Direct Radiation Results
(Units of mr dose and mr/day dose rate)

Location	1ST QTR Total	Average Mr/day	2ND QTR Total	Average mr/day	3RD QTR Total	Average mr/day	4TH QTR Total	Average mr/day	QTR Total	Annual Total	Average mr/day
N-1.45	5.1	0.0561	5.4	0.0588	3.4	0.0364	4.40	0.0453	18.30	19.10	0.052
N-4.4	7.7	0.0856	7.2	0.0791	5.0	0.0538	8.30	0.0859	28.20	30.95	0.084
N-6.5	5.2	0.0578	5.6	0.0615	4.5	0.0484	5.70	0.0594	21.00	21.15	0.057
N-9.4	6.4	0.0706	5.8	0.0637	4.5	0.0484	6.60	0.0688	23.30	22.40	0.061
NNE-1.1	1.0	0.0102	1.7	0.0198	0.7	0.0071	2.00	0.0203	5.40	4.15	0.011
NNE-5.65			6.4	0.0698	5.7	0.0614	6.10	0.0635	18.20	22.35	0.061
NE-1.7	0.8	0.0086	0.5	0.0052	0.6	0.0060	1.20	0.0120	3.10	4.35	0.012
NE-4.8	6.4	0.0711	4.2	0.0456	4.1	0.0440	6.40	0.0661	21.10	20.20	0.055
ENE-2.5	7.9	0.0872	8.0	0.0879	7.1	0.0766	9.20	0.0958	32.20	30.25	0.082
ENE-5.0	10.1	0.1122	8.9	0.0973	8.3	0.0902	11.00	0.1141	38.30	36.75	0.100
E-0.5	6.5	0.0717	6.6	0.0725	6.9	0.0745	7.30	0.0760	27.30	22.30	0.060
E-1.9	4.3	0.0478	3.5	0.0385	3.6	0.0386	4.40	0.0453	15.80	14.70	0.040
E-3.5	9.4	0.1039	8.2	0.0896	9.1	0.0984	10.30	0.1073	37.00	37.60	0.102
E-4.2	7.6	0.0839	6.2	0.0681	7.0	0.0755	9.20	0.0958	30.00	31.25	0.085
ESE-1.4	5.3	0.0589	5.2	0.0571	4.8	0.0522	5.80	0.0604	21.10	20.95	0.057
ESE-4.7	7.7	0.0850	7.2	0.0786	6.6	0.0717	8.30	0.0865	29.80	22.20	0.060
SE-1.3	6.3	0.0694	7.3	0.0802	7.1	0.0766	7.10	0.0734	27.80	25.50	0.069
SE-3.85	5.0	0.0556	4.3	0.0473	2.9	0.0315	5.20	0.0542	17.40	19.60	0.053
SE-4.6					4.0	0.0435	5.40	0.0563	9.40	10.50	0.057
SSE-1.3	4.6	0.0506	5.6	0.0615	3.5	0.0375	5.90	0.0609	19.60	20.45	0.055
SSE-4.4	6.9	0.0761			4.9	0.0527	6.70	0.0698	18.50	12.75	0.070
SSE-4.5	5.5	0.0606	6.0	0.0654	6.0	0.0652	6.00	0.0620	23.50	21.60	0.059
S-1.5	5.3	0.0589	4.4	0.0484	4.3	0.0467	4.30	0.0443	18.30	16.40	0.044
S-4.2	4.9	0.0544	4.3	0.0473	4.3	0.0462	5.70	0.0589	19.20	21.35	0.058
SSW-1.1	6.1	0.0672	5.0	0.0544	5.2	0.0560	6.00	0.0625	22.30	24.00	0.065
SSW-4.8			4.9	0.0598	4.9	0.0533	6.20	0.0646	16.00	17.90	0.065
SW-0.9	4.8	0.0528	5.0	0.0544	4.1	0.0440	5.40	0.0563	19.30	17.00	0.046
SW-4.8	3.6	0.0400	4.7	0.0511	4.6	0.0500	5.50	0.0573	18.40	18.40	0.164
SW-12.3 Control	5.2	0.0578	4.7	0.0516	4.4	0.0478	6.80	0.0703	21.10	21.50	0.058
WSW-1.0	6.2	0.0689	11.5	0.1264	5.8	0.0625	7.10	0.0734	30.60	24.45	0.066
WSW-5.35	5.3	0.0589	4.4	0.0484	3.2	0.0348	4.80	0.0500	17.70	18.05	0.049
WSW-7.0 Control			4.2	0.0462	5.3	0.0576	6.20	0.0641	15.70	15.00	0.055
W-1.0	3.7	0.0406	3.8	0.0412	2.6	0.0277	4.30	0.0443	14.40	14.45	0.039
W-2.0	3.4	0.0378	3.5	0.0385	2.6	0.0283	4.40	0.0453	13.90	12.60	0.034
W-5.5	4.0	0.0439	3.5	0.0379	3.2	0.0348	4.80	0.0495	15.50	19.35	0.052
WNW-1.0	8.1	0.0900	5.7	0.0626	6.3	0.0679	6.50	0.0672	26.60	24.35	0.066
WNW-5.0	5.5	0.0606	6.7	0.0731	4.7	0.0511	6.50	0.0672	23.40	24.20	0.066
WNW-6.7	5.3	0.0589	3.8	0.0457	4.6	0.0495	6.00	0.0625	19.70	24.60	0.059
NW-1.0	4.9	0.0544	4.3	0.0473	4.3	0.0462	5.10	0.0531	18.60	18.75	0.051
NW-5.7	5.0	0.0550	5.5	0.0604	6.0	0.0652	6.30	0.0656	22.80	25.25	0.068
NW-9.9	5.7	0.0628	5.5	0.0604	4.6	0.0500	5.40	0.0557	21.20	19.25	0.052
NNW-1.35	0.7	0.0070	7.9	0.0919	0.1	0.0011	1.00	0.0099	9.70	0.00	0.000
NNW-4.6	7.2	0.0800	0.1	0.0005	7.5	0.0815	7.00	0.0729	21.80	27.95	0.076
AVERAGES	5.50	0.0608	5.30	0.0584	4.72	0.0510	5.99	0.0621	20.76	20.37	0.060

Location	2001	2002	2003	2004	2005	2006	2007	2008	% Diff 2008 to 2007	2001-2007 mR Avg	% Diff 2008 to Average
R1	19.55	16.75	19.60	18.9	20.1	18.85	15.85	19.1	19%	18.51	3%
R2	32.75	29.25	32.30	33.7	30.05	28.55	24.6	30.95	23%	30.17	3%
R3	22.65	19.60	24.15	23.2	23.25	21.1	20.6	21.15	3%	22.08	-4%
R4	22.60	21.00	26.10	25.75	23.2	25.15	19.85	22.4	12%	23.38	-4%
R5	N/A	15.40	19.05	21.9	4.95	6.9	3.25	4.15	24%	11.91	**-97%**
R6	22.75	22.55	N/A	27.65	23.15	25.55	19.5	22.35	14%	23.53	-5%
R7	17.40	16.95	18.25	18.7	8.4	5.4	4.2	4.35	4%	12.76	**-98%**
R8	27.15	23.80	24.10	25.5	23.7	21.75	17.2	20.2	16%	23.31	-14%
R9	35.90	28.50	30.30	32.6	29.2	25.65	24.1	30.25	23%	29.46	3%
R10	41.85	36.20	41.90	41	36	40.6	35.65	36.75	3%	39.03	-6%
R11	29.80	22.75	26.15	29.45	25.65	29.5	26.85	22.3	-19%	27.16	-20%
R12	13.05	9.15	10.20	33.8	16	14.9	12.55	14.7	16%	15.66	-6%
R13	39.90	31.30	55.40	37.25	35.25	36.85	33.4	37.6	12%	38.48	-2%
R14	33.75	27.60	29.15	32.45	27.3	27.35	25.5	31.25	20%	29.01	7%
R15	21.30	16.95	20.55	21.5	17	21.5	16.8	20.95	22%	19.37	8%
R16	32.05	25.40	28.35	28.55	28.4	27.05	22.15	22.2	0%	27.42	-21%
R17	28.25	27.00	29.45	31.3	28.85	28.1	22.05	25.5	15%	27.86	-9%
R18	17.85	15.70	19.75	19.35	17.2	20.95	17.2	19.6	13%	18.29	7%
R19	20.25	21.70	21.85	20.7	18.95	18.75	15.8	10.5	-40%	19.71	**-61%**
R20	21.70	16.75	18.25	22.65	17.9	19.75	18.8	20.45	8%	19.40	5%
R21	21.75	21.15	25.15	24.25	22.15	23.25	22.35	12.75	**-55%**	22.86	**-57%**
R22	20.15	17.75	21.50	22	18.25	23.8	19.85	21.6	8%	20.47	5%
R23	17.95	18.95	16.60	18.85	17.3	16.85	15.45	16.4	6%	17.42	-6%
R24	18.10	17.55	21.10	25.45	19.85	19.85	16.6	21.35	**25%**	19.79	8%
R25	17.20	19.00	17.30	19.5	22.65	23.35	19.05	24	23%	19.72	20%
R26	23.50	25.80	N/A	20.5	18.7	21.15	18.85	17.9	-5%	21.42	-18%
R27	N/A	22.30	18.50	22.55	16.15	19.35	18.2	17	-7%	19.51	-14%
R28	18.05	16.20	20.85	14	15.6	4.35	14.75	18.4	22%	14.83	21%
R29	21.50	21.75	24.10	24.4	22.2	21.2	19.2	21.5	11%	22.05	-3%
R30	N/A	25.45	22.45	28.35	23.3	25.05	18.6	24.45	**27%**	23.87	2%
R31	19.75	18.70	23.05	24.7	20.55	21.2	17.65	18.05	2%	20.80	-14%
R32	22.20	25.60	26.65	25.1	27.8	27.45	19.95	15	-28%	24.96	-50%
R33	10.15	13.10	13.40	14.75	13.75	13.75	9.05	14.45	**46%**	12.56	14%
R34	21.15	11.90	13.70	13.9	13.4	14.85	10.1	12.6	22%	14.14	-12%
R35	18.45	14.65	18.00	17.95	19.4	16.1	14.4	19.35	**29%**	16.99	13%
R36	24.95	25.50	25.60	28.55	26.5	26.2	21.15	24.35	14%	25.49	-5%
R37	21.35	22.85	23.45	22.95	24.15	24.55	19.65	24.2	21%	22.71	6%
R38	22.00	21.10	23.65	23.1	20.1	22.95	18.55	21.6	15%	21.64	0%
R39	17.45	19.20	21.35	24.2	16.95	19.5	16.05	18.75	16%	19.24	-3%
R40	23.75	19.20	23.45	20.9	24.45	22.6	19.2	25.25	**27%**	21.94	14%
R41	17.15	14.95	17.35	19.65	17.7	18.15	17.8	19.25	8%	17.54	9%
R42	2.05	5.20	6.70	5.95	1.35	8	0.7	0	**-200%**	4.28	**-200%**
R43	29.45	23.95	30.40	30.9	24.95	28.1	28.65	27.95	-2%	28.06	0%

R5 - All reading low, elements could have been wet

R7 - All reading low, elements could have been wet

R12 - Anomalous reading from 2004

R28 - Missing 2nd issue (4/21/06 - 12/29/06)

R30-Anomalous low reading from 2007

R42 - Consistently low readings result in poor statistics

R26, 32--Placed in serive on 3/31/08

R19, 21 - Placed in service on 7/1/08

R28 - Placed in service on 9/10/08

Legend:

< 50% Lower

> 25% Higher

C. Airborne Program

Air particulate and air iodine samples were collected each week from the eight monitoring locations described in Table 1 – Comanche Peak Nuclear Power Plant Radiological Monitoring Program for 2008. Each air particulate sample was collected by drawing air through a 47 millimeter-diameter glass-fiber filter. Air iodine was collected by drawing air through a TEDA impregnated charcoal cartridge which was connected in series behind the air particulate filter. Shipped to an independent laboratory, air particulate filters were analyzed weekly for gross beta activity and were composited quarterly for gamma spectrometry analysis. Charcoal cartridges were analyzed weekly for Iodine-131.

For the year 2008, a total of 424 air particulate filters were collected and analyzed for gross beta activity. The reported gross beta activity ranged from a minimum value of **1.16E-02 pCi/m^3** to a maximum value of **8.12E-02 pCi/m^3**. Table 4 – 2008 Environmental Airborne Particulate Gross Beta Results contains the reported values of all samples. There were no anomalies noted in the data reported for 2008 when compared to pre-operational and previous operational data. Graph 1 – 2008 Environmental Air Sample Gross Beta Results – Maximum and Minimum trends the weekly high and low gross beta values to show the seasonal variation of the results as well as providing indication of consistency between the individual monitoring locations.

A total of 424 charcoal cartridges were analyzed for airborne Iodine-131. **No Iodine-131 was detected** at any of the eight monitoring locations. Table 5 – 2008 Environmental Air Sample Iodine-131 Results contains the reported values of each Iodine-131 analysis, all of which are less than the required lower limit of detection (LLD).

All air particulate filters were collected and composited quarterly and then analyzed by gamma spectrometry. The gamma isotopic data is presented in Table 6 – 2008 Environmental Air Particulate Composite Gamma Isotopic Results. Typical of pre-operational and previous operational data results, the only radioactive nuclide identified in all the samples was cosmogenic Beryllium-7, a naturally occurring isotope.

During the year 2008 there was one exception to the Airborne Program.

On sample collection date 3/4/08, Station A-8 and A-2 were found not running. Smart form 2008-000678 was written. LLD for Station A-2 was met. LLD for Station A-8 was not met.

A review of all the State of Texas air sample data indicated no anomalies.

Table 4 -- 2008 Environmental Airborne Particulate Gross Beta Results (Units of pCi/m3)

Date	Location NW-1.0	SW/WSW-0.95	S/SSW-1.2	SW-12.3 Control	SSE-4.5	E-3.5	N-1.45	N-9.4 Control
1/1/2008	4.06e-02	3.97e-02	3.84e-02	4.57e-02	4.17e-02	3.94e-02	3.53e-02	4.16e-02
1/8/2008	1.92e-02	1.92e-02	1.83e-02	2.09e-02	2.03e-02	2.29e-02	2.11e-02	2.25e-02
1/15/2008	2.36e-02	2.87e-02	2.87e-02	2.54e-02	2.86e-02	3.73e-02	3.12e-02	3.47e-02
1/22/2008	3.05e-02	2.92e-02	2.31e-02	2.47e-02	3.35e-02	2.92e-02	3.12e-02	3.01e-02
1/29/2008	4.61e-02	4.88e-02	3.85e-02	5.16e-02	5.09e-02	4.82e-02	5.09e-02	4.86e-02
2/5/2008	3.00e-02	3.28e-02	2.82e-02	3.36e-02	3.28e-02	3.55e-02	3.12e-02	3.41e-02
2/12/2008	3.26e-02	4.27e-02	3.00e-02	4.05e-02	4.24e-02	3.85e-02	3.81e-02	4.50e-02
2/19/2008	3.16e-02	3.36e-02	2.59e-02	3.04e-02	2.68e-02	3.31e-02	3.13e-02	3.42e-02
2/26/2008	3.95e-02	5.23e-02	3.71e-02	4.66e-02	4.95e-02	4.87e-02	4.13e-02	4.98e-02
3/4/2008	3.65e-02	3.23e-02	2.20e-02	3.10e-02	3.14e-02	2.74e-02	2.91e-02	3.75e-02
3/11/2008	2.95e-02	2.64e-02	2.19e-02	2.73e-02	2.74e-02	3.08e-02	2.81e-02	3.42e-02
3/18/2008	3.45e-02	2.98e-02	2.74e-02	3.48e-02	3.43e-02	3.17e-02	3.14e-02	3.96e-02
3/25/2008	3.10e-02	3.05e-02	2.81e-02	4.44e-02	3.40e-02	3.25e-02	3.12e-02	3.42e-02
4/1/2008	2.87e-02	2.80e-02	2.95e-02	3.78e-02	3.00e-02	3.05e-02	2.79e-02	3.49e-02
4/8/2008	2.85e-02	3.02e-02	2.42e-02	4.19e-02	2.64e-02	2.74e-02	2.62e-02	2.86e-02
4/15/2008	2.96e-02	2.43e-02	2.46e-02	4.10e-02	2.54e-02	2.67e-02	2.66e-02	3.09e-02
4/22/2008	3.49e-02	2.77e-02	2.65e-02	5.02e-02	3.33e-02	3.34e-02	3.31e-02	3.38e-02
4/29/2008	3.49e-02	2.43e-02	2.26e-02	4.69e-02	2.88e-02	3.4e-02	3.14e-02	3.38e-02
5/6/2008	3.26e-02	2.85e-02	2.34e-02	4.36e-02	2.49e-02	2.97e-02	3.05e-02	3.44e-02
5/13/2008	3.03e-02	2.5e-02	2.58e-02	4.71e-02	2.7e-02	2.81e-02	2.91e-02	3.28e-02
5/20/2008	2.49e-02	2.53e-02	2.0e-02	4.13e-02	2.67e-02	2.8e-02	3.12e-02	2.98e-02
5/27/2008	2.2e-02	1.93e-02	1.94e-02	4.2e-02	2.31e-02	2.74e-02	2.39e-02	2.38e-02
6/3/2008	1.94e-02	1.87e-02	1.72e-02	3.51e-02	2.13e-02	2.2e-02	2.49e-02	2.32e-02
6/10/2008	1.75e-02	1.49e-02	1.36e-02	1.66e-02	1.46e-02	1.51e-02	1.16e-02	1.78e-02
6/17/2008	1.76e-02	1.31e-02	1.62e-02	2.19e-02	1.65e-02	1.84e-02	1.88e-02	2.29e-02
6/24/2008	2.59e-02	2.55e-02	2.24e-02	7.52e-02	2.71e-02	2.94e-02	2.91e-02	2.98e-02
7/1/2008	2.48e-02	2.39e-02	2.03e-02	2.53e-02	2.71e-02	2.64e-02	2.12e-02	2.96e-02
7/8/2008	2.53e-02	2.48e-02	2.1e-02	2.42e-02	2.56e-02	2.65e-02	2.53e-02	2.41e-02
7/15/2008	2.57e-02	2.58e-02	2.26e-02	2.63e-02	2.65e-02	2.35e-02	2.34e-02	2.75e-02
7/22/2008	3.32e-02	3.05e-02	2.93e-02	2.76e-02	2.94e-02	3.05e-02	2.7e-02	2.87e-02
7/29/2008	3.02e-02	2.73e-02	2.87e-02	3.16e-02	3.32e-02	3.09e-02	2.55e-02	3.31e-02
8/5/2008	3.0e-02	3.25e-02	2.31e-02	2.39e-02	2.77e-02	3.26e-02	2.86e-02	2.86e-02
8/12/2008	1.96e-02	2.37e-02	2.56e-02	2.38e-02	2.35e-02	2.22e-02	2.08e-02	2.47e-02
8/19/2008	2.7e-02	2.69e-02	2.9e-02	3.2e-02	2.42e-02	3.12e-02	2.91e-02	2.98e-02
8/26/2008	2.58e-02	2.4e-02	2.52e-02	2.09e-02	2.72e-02	2.45e-02	2.19e-02	2.62e-02
9/2/2008	3.27e-02	3.74e-02	2.86e-02	3.94e-02	3.61e-02	3.62e-02	3.18e-02	4.05e-02
9/9/2008	2.28e-02	2.6e-02	2.57e-02	2.47e-02	2.45e-02	2.51e-02	2.46e-02	2.66e-02
9/16/2008	1.6e-02	1.29e-02	1.87e-02	1.98e-02	2.18e-02	2.29e-02	1.91e-02	2.34e-02
9/23/2008	3.29e-02	4.1e-02	3.72e-02	3.89e-02	4.58e-02	4.09e-02	3.43e-02	4.2e-02
9/30/2008	4.99e-02	5.55e-02	5.51e-02	5.89e-02	6.26e-02	6.73e-02	5.47e-02	6.99e-02
10/7/2008	3.69e-02	4.39e-02	4.22e-02	4.19e-02	4.55e-02	4.97e-02	4.06e-02	4.97e-02
10/14/2008	2.86e-02	2.94e-02	3.0e-02	3.27e-02	3.19e-02	3.34e-02	3.33e-02	3.0e-02
10/21/2008	3.49e-02	3.54e-02	3.26e-02	3.09e-02	3.99e-02	3.53e-02	3.79e-02	4.15e-02
10/28/2008	3.12e-02	3.07e-02	3.05e-02	3.14e-02	3.28e-02	3.7e-02	3.11e-02	3.37e-02
11/4/2008	3.29e-02	3.93e-02	4.15e-02	3.82e-02	4.59e-02	4.37e-02	3.95e-02	4.62e-02
11/11/2008	1.95e-02	2.33e-02	2.18e-02	2.1e-02	2.73e-02	2.5e-02	2.11e-02	2.66e-02
11/18/2008	2.28e-02	2.12e-02	2.66e-02	2.21e-02	2.59e-02	2.06e-02	2.16e-02	2.65e-02
11/25/2008	4.51e-02	4.57e-02	3.91e-02	4.25e-02	4.4e-02	4.38e-02	4.72e-02	4.79e-02
12/2/2008	6.92e-02	6.58e-02	4.95e-02	6.69e-02	6.49e-02	7.46e-02	7.43e-02	8.12e-02
12/9/2008	3.95e-02	4.27e-02	2.92e-02	3.92e-02	3.27e-02	4.18e-02	3.41e-02	4.97e-02
12/16/2008	3.99e-02	4.1e-02	2.82e-02	3.53e-02	3.93e-02	3.74e-02	3.42e-02	3.84e-02
12/23/2008	5.98e-02	4.89e-02	4.04e-02	4.98e-02	5.41e-02	5.23e-02	4.79e-02	5.02e-02
12/30/2008	3.49e-02	3.41e-02	3.11e-02	2.65e-02	3.26e-02	3.58e-02	2.82e-02	3.15e-02

Required LLD's 1.00E-02

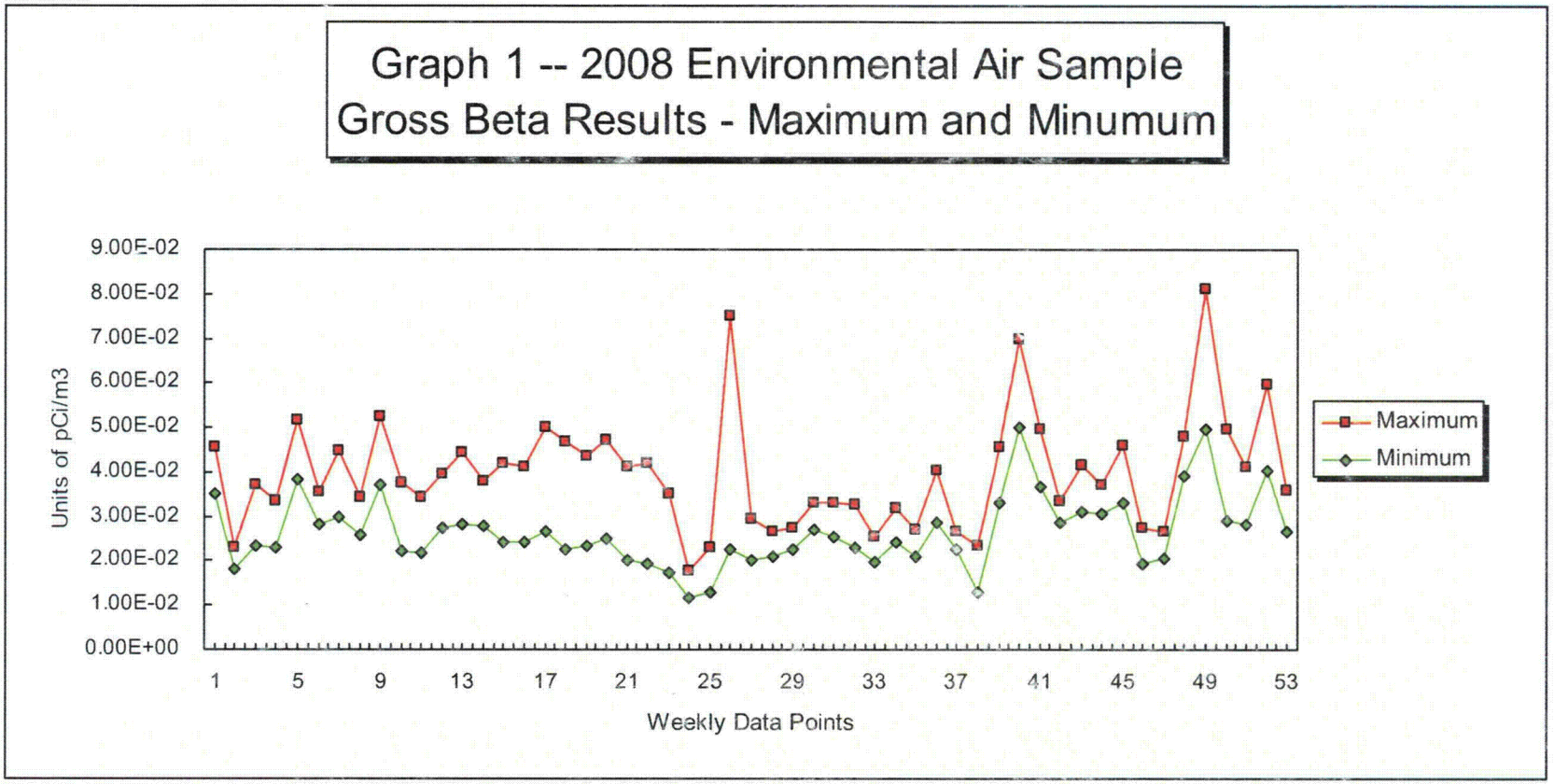

Graph 1 -- 2008 Environmental Air Sample
Gross Beta Results - Maximum and Minumum
9.00E-02
8.00E-02
7.00E-02
6.00E-02
5.00E-02
4.00E-02
3.00E-02
2.00E-02
1.00E-02
0.00E+00
Units of pCi/m3
1
5
9
13
17
21
25
29
33
37
41
45
49
53
Weekly Data Points
Maximum
Minimum

Table 5 – 2008 Environmental Air Sample Iodine-131 Results
(Units of pCi/m3)

Date	NW-1.0	SW/WSW-0.95	S/SSW-1.2	SW-12.3 Control	SSE-4.5	E-3.5	N-1.45	N-9.4 Control
1/1/2008	<5.1E-02	<5.9E-02	<4.8E-02	<5.6E-02	<6.2E-02	<5.7E-02	<5.3E-02	<6.1E-02
1/8/2008	<3.6E-02	<3.2E-02	<3.8E-02	<3.3E-02	<3.3E-02	<4.0E-02	<3.4E-02	<2.9E-02
1/15/2008	<5.5E-02	<5.4E-02	<6.5E-02	<6.6E-02	<6.3E-02	<4.2E-02	<4.2E-02	<4.3E-02
1/22/2008	<6.2E-02	<4.6E-02	<5.3E-02	<6.8E-02	<5.0E-02	<5.3E-02	<5.9E-02	<4.3E-02
1/29/2008	<6.0E-02	<6.1E-02	<6.7E-02	<5.8E-02	<6.5E-02	<5.1E-02	<6.7E-02	<6.5E-02
2/5/2008	<4.2E-02	<4.3E-02	<3.4E-02	<3.7E-02	<4.3E-02	<4.0E-02	<3.6E-02	<4.4E-02
2/12/2008	<4.0E-02	<4.0E-02	<2.8E-02	<3.7E-02	<3.5E-02	<4.6E-02	<4.6E-02	<4.1E-02
2/19/2008	<5.3E-02	<3.8E-02	<4.8E-02	<4.7E-02	<4.6E-02	<5.4E-02	<4.7E-02	<4.9E-02
2/26/2008	<4.7E-02	<4.5E-02	<5.2E-02	<5.2E-02	<3.7E-02	<3.9E-02	<4.0E-02	<4.2E-02
3/4/2008	<5.7E-02	<4.9E-02	<3.4E-02	<5.2E-02	<4.7E-02	<4.9E-02	<4.3E-02	<5.5E-02
3/11/2008	<3.5E-02	<4.6E-02	<4.2E-02	<4.0E-02	<4.4E-02	<4.8E-02	<3.0E-02	<4.0E-02
3/18/2008	<6.3E-02	<5.7E-02	<6.0E-02	<6.6E-02	<5.1E-02	<5.3E-02	<5.1E-02	<5.9E-02
3/25/2008	<4.6E-02	<5.7E-02	<5.9E-02	<6.5E-02	<5.3E-02	<6.5E-02	<5.3E-02	<5.7E-02
4/1/2008	<4.8E-02	<4.2E-02	<4.6E-02	<4.0E-02	<4.1E-02	<4.1E-02	<4.6E-02	<5.3E-02
4/8/2008	<4.3E-02	<4.0E-02	<2.3E-02	<3.7E-02	<3.4E-02	<3.0E-02	<3.9E-02	<4.6E-02
4/15/2008	<2.3E-02	<4.2E-02	<3.7E-02	<3.8E-02	<3.2E-02	<2.8E-02	<4.6E-02	<4.0E-02
4/22/2008	<3.9E-02	<4.6E-02	<5.1E-02	<5.7E-02	<4.3E-02	<4.4E-02	<4.9E-02	<5.0E-02
4/29/2008	<5.6E-02	<6.5E-02	<5.4E-02	<6.7E-02	<5.3E-02	<5.0E-02	<5.7E-02	<6.2E-02
5/6/2008	<2.9E-02	<2.7E-02	<4.1E-02	<5.3E-02	<4.9E-02	<5.4E-02	<3.9E-02	<4.3E-02
5/13/2008	<4.8E-02	<4.8E-02	<3.0E-02	<3.9E-02	<3.9E-02	<4.1E-02	<3.8E-02	<4.2E-02
5/20/2008	<4.6e-02	<4.8e-02	<4.4e-02	<4.2e-02	<4.4e-02	<5.2e-02	<5.0e-02	<4.1e-02
5/27/2008	<3.7e-02	<3.8e-02	<4.8e-02	<3.8e-02	<3.7e-02	<3.7e-02	<3.3e-02	<4.0e-02
6/3/2008	<5.3e-02	<3.5e-02	<4.9e-02	<4.9e-02	<3.3e-02	<6.5e-02	<4.9e-02	<4.4e-02
6/10/2008	<3.6e-02	<2.7e-02	<3.4e-02	<2.8e-02	<3.1e-02	<3.6e-02	<3.1e-02	<2.5e-02
6/17/2008	<3.7e-02	<3.3e-02	<4.1e-02	<3.3e-02	<3.8e-02	<4.2e-02	<5.8e-02	<3.8e-02
6/24/2008	<4.6e-02	<5.0e-02	<4.2e-02	<6.5e-02	<5.0e-02	<4.5e-02	<3.4e-02	<4.2e-02
7/1/2008	<4.4e-02	<6.0e-02	<4.7e-02	<5.8e-02	<5.5e-02	<5.8e-02	<3.6e-02	<6.1e-02
7/8/2008	<2.8e-02	<3.5e-02	<3.6e-02	<3.9e-02	<5.2e-02	<4.7e-02	<3.8e-02	<4.9e-02
7/15/2008	<5.5e-02	<5.6e-02	<6.4e-02	<6.7e-02	<6.7e-02	<6.4e-02	<6.0e-02	<5.1e-02
7/22/2008	<4.2e-02	<3.6e-02	<3.5e-02	<4.6e-02	<3.5e-02	<5.0e-02	<3.9e-02	<4.4e-02
7/29/2008	<5.7e-02	<5.2e-02	<5.4e-02	<6.7e-02	<6.8e-02	<6.5e-02	<5.5e-02	<5.9e-02
8/5/2008	<4.7e-02	<5.2e-02	<3.6e-02	<5.0e-02	<5.0e-02	<5.0e-02	<4.7e-02	<4.5e-02
8/12/2008	<4.5e-02	<4.2e-02	<4.2e-02	<5.4e-02	<4.7e-02	<4.7e-02	<4.5e-02	<4.2e-02
8/19/2008	<4.1e-02	<4.2e-02	<5.5e-02	<4.1e-02	<5.7e-02	<3.5e-02	<4.6e-02	<4.6e-02
8/26/2008	<4.8e-02	<2.9e-02	<3.4e-02	<4.1e-02	<3.6e-02	<3.0e-02	<3.3e-02	<4.0e-02
9/2/2008	<2.9e-02	<3.0e-02	<2.8e-02	<2.5e-02	<1.9e-02	<2.8e-02	<3.3e-02	<2.9e-02
9/9/2008	<2.6e-02	<3.8e-02	<4.0e-02	<2.9e-02	<3.7e-02	<2.8e-02	<3.6e-02	<3.7e-02
9/16/2008	<3.5e-02	<2.7e-02	<3.0e-02	<2.7e-02	<3.5e-02	<2.6e-02	<3.5e-02	<2.9e-02
9/23/2008	<4.9e-02	<4.4e-02	<4.5e-02	<3.8e-02	<4.9e-02	<4.5e-02	<3.7e-02	<2.5e-02
9/30/2008	<6.2e-02	<4.4e-02	<5.4e-02	<5.4e-02	<4.0e-02	<6.6e-02	<4.9e-02	<5.1e-02
10/7/2008	<3.6e-02	<3.1e-02	<3.3e-02	<2.7e-02	<3.1e-02	<3.5e-02	<3.1e-02	<3.0e-02
10/14/2008	<4.8e-02	<4.6e-02	<3.0e-02	<3.8e-02	<3.5e-02	<4.0e-02	<4.0e-02	<4.0e-02
10/21/2008	<3.2e-02	<3.0e-02	<2.8e-02	<3.4e-02	<3.5e-02	<3.1e-02	<4.7e-02	<3.4e-02
10/28/2008	<5.4e-02	<6.3e-02	<5.2e-02	<5.9e-02	<4.4e-02	<5.5e-02	<4.1e-02	<5.5e-02
11/4/2008	<3.3e-02	<3.8e-02	<3.8e-02	<3.8e-02	<5.0e-02	<4.1e-02	<4.3e-02	<4.4e-02
11/11/2008	<3.1e-02	<2.6e-02	<3.2e-02	<3.4e-02	<2.9e-02	<3.1e-02	<3.6e-02	<3.4e-02
11/18/2008	<3.5e-02	<2.3e-02	<3.6e-02	<3.2e-02	<3.9e-02	<3.1e-02	<3.2e-02	<2.5e-02
11/25/2008	<4.1e-02	<5.1e-02	<4.8e-02	<5.2e-02	<4.5e-02	<4.1e-02	<4.7e-02	<5.3e-02
12/2/2008	<5.1e-02	<5.0e-02	<5.4e-02	<4.6e-02	<5.9e-02	<5.4e-02	<6.5e-02	<6.1e-02
12/9/2008	<5.0e-02	<4.2e-02	<5.9e-02	<3.8e-02	<4.6e-02	<4.9e-02	<3.9e-02	<5.1e-02
12/16/2008	<3.2e-02	<3.1e-02	<3.2e-02	<3.2e-02	<2.5e-02	<3.1e-02	<4.0e-02	<2.7e-02
12/23/2008	<3.7e-02	<3.8e-02	<3.7e-02	<5.7e-02	<4.0e-02	<4.6e-02	<3.9e-02	<4.6e-02
12/30/2008	<4.9e-02	<4.1e-02	<4.8e-02	<4.5e-02	<5.8e-02	<4.7e-02	<6.6e-02	<5.2e-02

Required LLD **7.00E-02**

Table 6 -- 2008 Environmental Air Particulate Composite Gamma Isotopic Results
(Units of pCi/m3)

	Location	NW-1.0	SW/WSW-0.95	SSW-1.2	SW-12.3 Control	SSE-4.5	E-3.5	N-1.45	N-9.4 Control	
	Nuclides									
	Ba-140	<7.5e-02	<6.1e-02	<4.7e-02	<1.4e-02	<5.5e-02	<3.7e-02	<5.4e-02	<5.4e-02	
	Be-7	**1.37e-01**	**1.51e-01**	**1.43e-01**	**1.66e-01**	**1.74e-01**	**1.65e-01**	**1.6e-01**	**1.59e-01**	
	Co-57	<9.7e-04	<1.2e-03	<1.1e-03	<1.1e-03	<1.2e-03	<1.1e-03	<1.1e-03	<1.1e-03	
	Co-58	<3.0e-03	<3.1e-03	<3.6e-03	<3.6e-03	<3.1e-03	<3.8e-03	<3.6e-03	<4.2e-03	
Composite Dates	Co-60	<2.7e-03	<3.1e-03	<2.3e-03	<2.1e-03	<1.4e-03	<2.8e-03	<2.7e-03	<1.8e-03	
1ST QTR	Cs-134	<2.4e-03	<2.0e-03	<1.8e-03	<2.4e-03	<1.9e-03	<2.0e-03	<1.9e-03	<2.1e-03	**Required LLD 5.0e-2**
01/01/08-03/25/08	Cs-137	<2.0e-03	<2.9e-03	<2.0e-03	<2.1e-03	<2.2e-03	<1.8e-03	<2.6e-03	<2.1e-03	**Required LLD 6.0e-2**
	Fe-59	<1.2e-02	<5.9e-03	<1.2e-02	<1.4e-02	<1.2e-02	<8.7e-03	<9.5e-03	<1.3e-02	
	K-40	<3.0e-02	<2.5e-02	<3.1e-02	<2.8e-02	<3.2e-02	<2.4e-02	<3.1e-02	<2.7e-02	
	La-140	<8.7e-02	<7.0e-02	<5.4e-02	<1.6e-02	<6.3e-02	<4.3e-02	<6.2e-02	<6.2e-02	
	Mn-54	<2.3e-03	<2.3e-03	<2.3e-03	<2.2e-03	<1.9e-03	<1.9e-03	<1.8e-03	<2.1e-03	
	Nb-95	<7.1e-03	<6.1e-03	<6.0e-03	<6.1e-03	<6.8e-03	<6.8e-03	<8.5e-03	<7.0e-03	
	Zn-65	<4.2e-03	<5.2e-03	<3.9e-03	<4.4e-03	<5.6e-03	<4.5e-03	<3.9e-03	<4.8e-03	
	Zr-95	<6.3e-03	<6.6e-03	<6.9e-03	<5.2e-03	<5.6e-03	<6.3e-03	<6.5e-03	<5.6e-03	
	Ba-140	<1.2e-01	<4.6e-02	<1.3e-01	<1.4e-01	<1.8e-01	<1.8e-01	<3.0e-02	<1.7e-01	
	Be-7	**1.41e-01**	**1.6e-01**	**1.5e-01**	**2.44e-01**	**1.79e-01**	**1.66e-01**	**1.59e-01**	**1.7e-01**	
	Co-57	<6.9e-04	<6.3e-04	<7.3e-04	<9.1e-04	<7.6e-04	<8.2e-04	<7.9e-04	<9.0e-04	
	Co-58	<4.0e-03	<3.5e-03	<3.6e-03	<4.2e-03	<4.9e-03	<3.5e-03	<3.5e-03	<4.0e-03	
	Co-60	<2.5e-03	<2.5e-03	<2.0e-03	<8.2e-04	<2.5e-03	<2.9e-03	<2.2e-03	<7.9e-04	
2ND QTR	Cs-134	<1.4e-03	<1.9e-03	<1.4e-03	<1.9e-03	<1.9e-03	<2.1e-03	<1.7e-03	<1.8e-03	**Required LLD 5.0e-2**
03/26/08-06-24-08	Cs-137	<1.3e-03	<1.7e-03	<1.7e-03	<1.2e-03	<1.7e-03	<1.1e-03	<1.3e-03	<1.2e-03	**Required LLD 6.0e-2**
	Fe-59	<1.4e-02	<1.2e-02	<1.4e-02	<2.2e-02	<9.6e-03	<1.4e-02	<1.2e-02	<1.6e-02	
	K-40	<2.4e-02	<2.4e-02	<2.4e-02	<3.5e-02	<2.7e-02	<2.1e-02	<2.0e-02	<3.7e-02	
	La-140	<1.2e-01	<4.6e-02	<1.3e-01	<1.4e-01	<1.8e-01	<1.8e-01	<3.0e-02	<1.7e-01	
	Mn-54	<1.5e-03	<2.4e-03	<1.5e-03	<3.4e-03	<4.9e-04	<2.4e-03	<2.2e-03	<3.1e-03	
	Nb-95	<7.2e-03	<9.5e-03	<7.7e-03	<1.1e-02	<8.4e-03	<9.5e-03	<8.0e-03	<8.4e-03	
	Zn-65	<5.5e-03	<5.6e-03	<4.8e-03	<1.7e-03	<4.8e-03	<5.6e-03	<4.1e-03	<1.6e-03	
	Zr-95	<6.3e-03	<7.7e-03	<5.7e-03	<1.1e-02	<6.3e-03	<6.4e-03	<5.5e-03	<8.6e-03	

Table 6 – 2008 Environmental Air Particulate Composite Gamma Isotopic Results (continued)
(Units of pCi/m3)

	Location	NW-1.0	SW/WSW-0.95	SSW-1.2	SW-12.3	SSE-4.5	E-3.5	N-1.45	N-9.4	
	Nuclides				Control				Control	
	Ba-140	<3.3e-02	<4.2e-02	<2.7e-02	<3.7e-02	<1.2e-02	<6.5e-02	<3.1e-02	<5.3e-02	
	Be-7	**1.37e-01**	**1.56e-01**	**1.62e-01**	**1.53e-01**	**1.78e-01**	**1.46e-01**	**1.5e-01**	**1.52e-01**	
	Co-57	<6.7e-04	<8.2e-04	<7.1e-04	<8.8e-04	<6.4e-04	<6.7e-04	<7.4e-04	<9.0e-04	
	Co-58	<3.5e-03	<2.4e-03	<2.4e-03	<4.5e-03	<3.2e-03	<3.8e-03	<3.2e-03	<4.9e-03	
Composite Dates	Co-60	<2.5e-03	<3.2e-03	<1.7e-03	<3.7e-03	<3.2e-03	<2.0e-03	<1.7e-03	<2.3e-03	
3RD QTR	Cs-134	<1.4e-03	<2.0e-03	<1.9e-03	<5.6e-04	<1.6e-03	<2.3e-03	<1.7e-03	<2.1e-03	**Required LLD 5.0e-2**
06/24/08-09/30/08	Cs-137	<2.2e-03	<2.5e-03	<1.8e-03	<2.1e-03	<1.0e-03	<1.9e-03	<1.6e-03	<2.0e-03	**Required LLD 6.0e-2**
	Fe-59	<8.4e-03	<9.8e-03	<1.1e-02	<7.7e-03	<1.2e-02	<9.9e-03	<9.1e-03	<9.7e-03	
	K-40	<2.4e-02	<2.4e-02	<2.0e-02	<2.9e-02	<2.7e-02	<2.5e-02	<2.0e-02	<3.4e-02	
	La-140	<3.3e-02	<4.2e-02	<2.7e-02	<3.7e-02	<1.2e-02	<6.5e-02	<3.1e-02	<5.3e-02	
	Mn-54	<2.5e-03	<2.0e-03	<1.8e-03	<3.5e-03	<4.7e-04	<2.3e-03	<2.0e-03	<2.4e-03	
	Nb-95	<4.6e-03	<6.2e-03	<4.7e-03	<4.1e-03	<5.9e-03	<6.9e-03	<4.7e-03	<8.0e-03	
	Zn-65	<5.2e-03	<4.5e-03	<5.7e-03	<7.3e-03	<7.2e-03	<5.2e-03	<4.5e-03	<5.2e-03	
	Zr-95	<3.8e-03	<5.9e-03	<3.1e-03	<8.1e-03	<5.6e-03	<4.9e-03	<4.0e-03	<5.6e-03	
	Ba-140	<5.3e-02	<3.5e-02	<4.9e-02	<2.5e-02	<3.0e-02	<4.2e-02	<2.7e-02	<2.1e-02	
	Be-7	**1.78e-01**	**1.86e-01**	**1.38e-01**	**1.83e-01**	**1.63e-01**	**1.92e-01**	**1.96e-01**	**1.69e-01**	
	Co-57	<7.9e-04	<7.9e-04	<6.7e-04	<7.9e-04	<8.7e-04	<7.6e-04	<9.1e-04	<7.4e-04	
	Co-58	<2.4e-03	<2.4e-03	<2.9e-03	<3.1e-03	<5.0e-03	<3.1e-03	<7.1e-04	<2.5e-03	
	Co-60	<7.8e-04	<2.3e-03	<6.8e-04	<2.1e-03	<2.9e-03	<1.8e-03	<6.7e-04	<1.2e-03	
4TH QTR	Cs-134	<1.3e-03	<1.2e-03	<1.9e-03	<9.0e-04	<2.1e-03	<1.8e-03	<1.8e-03	<1.3e-03	**Required LLD 5.0e-2**
09/30/08-12/30/08	Cs-137	<2.0e-03	<2.0e-03	<1.9e-03	<1.8e-03	<1.5e-03	<1.4e-03	<2.0e-03	<1.2e-03	**Required LLD 6.0e-2**
	Fe-59	<9.2e-03	<6.5e-03	<9.3e-03	<7.9e-03	<1.3e-02	<9.8e-03	<7.9e-03	<7.1e-03	
	K-40	<2.2e-02	<3.3e-02	<3.0e-02	<1.8e-02	<2.2e-02	<2.4e-02	<3.2e-02	<1.8e-02	
	La-140	<5.3e-02	<3.5e-02	<4.9e-02	<2.5e-02	<3.0e-02	<4.2e-02	<2.7e-02	<2.1e-02	
	Mn-54	<2.9e-03	<2.2e-03	<1.2e-03	<2.0e-03	<2.0e-03	<1.6e-03	<1.2e-03	<1.7e-03	
	Nb-95	<6.3e-03	<3.5e-03	<5.1e-03	<4.0e-03	<5.6e-03	<4.6e-03	<5.4e-03	<2.9e-03	
	Zn-65	<6.6e-03	<6.0e-03	<5.8e-03	<4.0e-03	<6.6e-03	<5.1e-03	<6.2e-03	<2.4e-03	
	Zr-95	<9.9e-03	<5.0e-03	<5.2e-03	<4.2e-03	<6.3e-03	<5.1e-03	<4.6e-03	<4.1e-03	

D. Surface Water Program

Surface water monitoring stations are found at four locations as detailed in Table 1 – Comanche Peak Nuclear Power Plant Radiological Environmental Monitoring Program. Location N-1.5 provides samples representative of Squaw Creek reservoir surface water at a location beyond significant influence of the plant discharge. Location ESE-1.4 provides samples representative of discharges from Squaw Creek reservoir downstream to Squaw Creek and to Lake Granbury via an installed return line. [*NOTE: The installed return line to Lake Granbury has never been used to send water back to Lake Granbury.*] Location NE-7.4 provides samples of Lake Granbury surface water downstream of the discharge from the return line from Squaw Creek reservoir. A control sample is obtained from the Brazos River, upstream of Lake Granbury at location N-19.3. Surface water samples from Squaw Creek reservoir locations were collected weekly and composited for monthly gamma isotopic analysis. Samples from Lake Granbury locations were collected monthly and analyzed by gamma spectrometry. All surface water samples were also composited quarterly by location for tritium analysis.

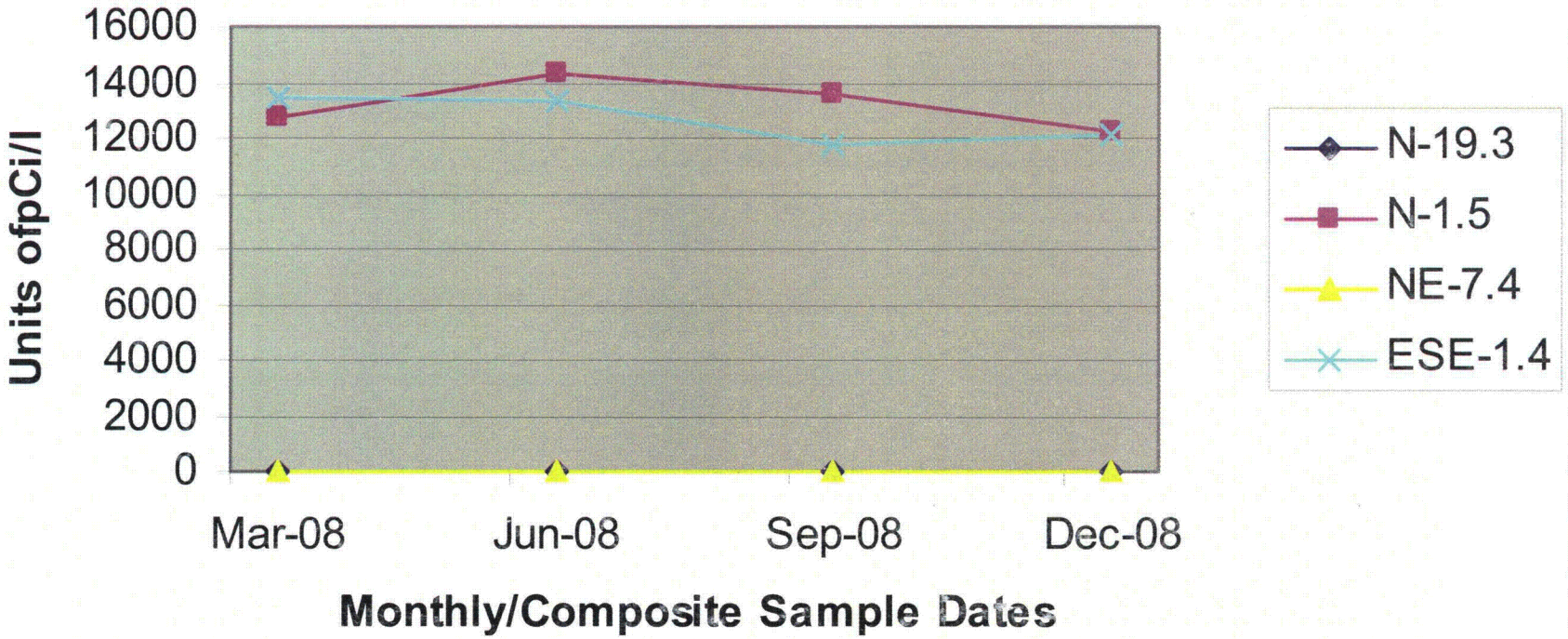
For the year 2008 all surface water samples were collected as required. Table 7 -- 2008 Environmental Surface Water Tritium and Gamma Isotopic Results contains the reported values. Forty-eight samples were analyzed by gamma spectrometry. All results for the required radionuclides were reported as less than the required LLDs. Sixteen quarterly composited samples were analyzed for tritium. The results of the reported tritium values for Squaw Creek reservoir were in line with expected concentrations. The tritium values ranged from a high of **1.43e+04** pCi/l to a low of **1.18e+04** pCi/l. The results from Lake Granbury were all less than the required LLDs as expected. The tritium concentration reported in Squaw Creek is well below the action level of **3.0e+4** pCi/l and is following the expected concentration variations based on fuel cycles, power histories and reservoir makeup due to rain and pump transfers from Lake Granbury. Graph 2 – 2008 Environmental Surface Water Tritium Results indicates the current results and the short-term trend of the tritium concentration in Squaw Creek reservoir. The tritium value varies only slightly and is leveling off which possibly indicates that equilibrium may have been reached or soon will be reached. Graph 3 – Squaw Creek Maximum Tritium Values trends the reservoir tritium concentration since it was first detected in 1990 after Unit 1 startup and is located on page 30. This long-term graph also indicates that equilibrium concentrations may have been obtained. **Squaw Creek reservoir tritium is a direct product of the operation of CPNPP and is the only consistent indicator detectable in the environment surrounding Comanche Peak.** There should not be any significant changes in the tritium concentrations in the near future and no action levels are anticipated. A review of pre-operational and operational data indicated the 2008 results were both expected and consistent with previous data and that no anomalies had occurred.

For the year 2008, there were no exceptions to the Surface Water Program.

Table 7 -- 2008 Environmental Surface Water Tritium and Gamma Isotopic Results
(Units of pCi/l)

Date	Location	H-3	Nuclides Ba-140	Be-7	Co-58	Co-60	Cs-134	Cs-137	Fe-59	I-131	K-40	La-140	Mn-54	Nb-95	Zn-65	Zr-95
01/29/08	ESE-1.4		<8.6e+00	<2.2e+01	<3.0e+00	<2.6e+00	<2.4e+00	<2.5e+00	<7.5e+00	<1.4e+01	<4.1e+01	<8.6e+00	<2.4e+00	<3.0e+00	<5.1e+00	<4.6e+00
02/26/08	ESE-1.4		<7.8e+00	<2.8e+01	<3.1e+00	<2.7e+00	<2.5e+00	<2.8e+00	<6.7e+00	<1.2e+01	<4.4e+01	<7.8e+00	<2.7e+00	<3.1e+00	<5.7e+00	<5.6e+00
03/25/08	ESE-1.4	1.35e+04	<1.4e+01	<3.5e+01	<4.4e+00	<5.0e+00	<3.3e+00	<4.0e+00	<1.0e+01	<1.4e+01	<6.8e+01	<1.4e+01	<3.8e+00	<5.4e+00	<9.2e+00	<6.8e+00
04/29/08	ESE-1.4		<8.5e+00	<1.9e+01	<2.3e+00	<2.2e+00	<2.0e+00	<1.9e+00	<5.2e+00	<1.4e+01	**3.1e+01**	<8.5e+00	<2.0e+00	<3.1e+00	<4.5e+00	<4.2e+00
05/27/08	ESE-1.4		<9.5e+00	<2.7e+01	<3.5e+00	<3.4e+00	<3.2e+00	<2.8e+00	<7.5e+00	<1.2e+01	<4.5e+01	<9.5e+00	<3.4e+00	<3.5e+00	<6.9e+00	<5.3e+00
06/24/08	ESE-1.4	1.33e+04	<1.2e+01	<2.8e+01	<3.8e+00	<3.8e+00	<3.2e+00	<3.2e+00	<9.3e+00	<1.4e+01	**3.8e+01**	<1.2e+01	<3.1e+00	<4.9e+00	<1.2e+01	<6.3e+00
07/29/08	ESE-1.4		<8.2e+00	<1.6e+01	<1.9e+00	<1.8e+00	<1.5e+00	<1.5e+00	<4.8e+00	<9.8e+00	**2.9e+01**	<8.2e+00	<1.6e+00	<2.6e+00	<3.9e+00	<3.5e+00
08/26/08	ESE-1.4		<1.4e+01	<3.3e+01	<4.8e+00	<5.7e+00	<3.9e+00	<3.7e+00	<1.2e+01	<1.4e+01	<5.4e+01	<1.4e+01	<3.5e+00	<5.0e+00	<9.4e+00	<8.0e+00
09/30/08	ESE-1.4	1.18e+04	<4.8e+00	<9.4e+00	<9.6e-01	<9.1e-01	<9.2e-01	<9.0e-01	<2.4e+00	<9.2e+00	<1.9e+01	<4.8e+00	<9.0e-01	<2.6e+00	<2.1e+00	<1.7e+00
10/28/08	ESE-1.4		<9.8e+00	<2.7e+01	<3.8e+00	<3.8e+00	<2.5e+00	<3.0e+00	<8.6e+00	<1.1e+01	<5.4e+01	<9.8e+00	<3.4e+00	<3.6e+00	<6.7e+00	<5.4e+00
11/25/08	ESE-1.4		<1.2e+01	<2.7e+01	<3.1e+00	<3.1e+00	<3.2e+00	<3.4e+00	<6.0e+00	<1.4e+01	<4.6e+01	<1.2e+01	<2.8e+00	<4.1e+00	<6.9e+00	<5.7e+00
12/30/08	ESE-1.4	1.21e+04	<9.1e+00	<2.4e+01	<2.7e+00	<2.5e+00	<2.2e+00	<2.4e+00	<5.9e+00	<1.4e+01	<3.4e+01	<9.1e+00	<2.5e+00	<4.6e+00	<9.4e+00	<4.4e+00
01/29/08	N-1.5		<1.2e+01	<3.1e+01	<3.7e+00	<4.1e+00	<3.6e+00	<3.3e+00	<8.1e+00	<1.4e+01	<6.0e+01	<1.2e+01	<2.9e+00	<4.6e+00	<7.5e+00	<7.6e+00
02/26/08	N-1.5		<8.2e+00	<3.0e+01	<2.8e+00	<2.8e+00	<2.7e+00	<2.6e+00	<7.2e+00	<1.2e+01	<4.4e+01	<8.2e+00	<2.5e+00	<3.6e+00	<5.9e+00	<5.2e+00
03/25/08	N-1.5	1.27e+04	<9.7e+00	<3.1e+01	<3.4e+00	<2.9e+00	<3.1e+00	<3.0e+00	<7.7e+00	<1.4e+01	**2.5e+01**	<9.7e+00	<3.0e+00	<3.8e+00	<7.5e+00	<6.4e+00
04/29/08	N-1.5		<9.4e+00	<2.4e+01	<2.7e+00	<2.8e+00	<2.6e+00	<2.5e+00	<6.7e+00	<1.4e+01	<5.1e+01	<9.4e+00	<2.4e+00	<5.5e+00	<5.5e+00	<4.9e+00
05/27/08	N-1.5		<1.0e+01	<3.7e+01	<4.0e+00	<3.9e+00	<3.3e+00	<4.3e+00	<6.9e+00	<1.3e+01	<5.2e+01	<1.0e+01	<3.6e+00	<5.3e+00	<1.0e+01	<7.8e+00
06/24/08	N-1.5	1.43e+04	<7.2e+00	<1.6e+01	<1.8e+00	<1.7e+00	<1.6e+00	<1.8e+00	<4.3e+00	<1.2e+01	**1.68e+01**	<7.2e+00	<1.6e+00	<2.3e+00	<4.1e+00	<3.3e+00
07/29/08	N-1.5		<7.4e+00	<1.6e+01	<1.9e+00	<2.0e+00	<1.7e+00	<1.9e+00	<4.7e+00	<1.2e+01	<3.1e+01	<7.4e+00	<1.6e+00	<2.3e+00	<3.9e+00	<3.2e+00
08/26/08	N-1.5		<1.0e+01	<2.4e+01	<3.5e+00	<3.5e+00	<2.7e+00	<2.9e+00	<8.2e+00	<1.5e+01	<4.7e+01	<1.0e+01	<3.7e+00	<4.7e+00	<7.0e+00	<7.0e+00
09/30/08	N-1.5	1.36e+04	<9.0e+00	<2.0e+01	<2.0e+00	<2.3e+00	<2.2e+00	<1.8e+00	<5.4e+00	<1.3e+01	<3.1e+01	<9.0e+00	<1.9e+00	<2.8e+00	<4.9e+00	<3.8e+00
10/28/08	N-1.5		<6.4e+00	<2.3e+01	<2.7e+00	<2.5e+00	<2.1e+00	<2.4e+00	<5.3e+00	<1.2e+01	<3.0e+01	<6.4e+00	<2.0e+00	<3.6e+00	<5.7e+00	<4.9e+00
11/25/08	N-1.5		<5.5e+00	<1.5e+01	<1.7e+00	<1.9e+00	<1.7e+00	<1.6e+00	<3.9e+00	<7.1e+00	**3.33e+01**	<5.5e+00	<1.6e+00	<2.0e+00	<3.6e+00	<2.8e+00
12/30/08	N-1.5	1.23e+04	<1.1e+01	<2.4e+01	<2.9e+00	<3.4e+00	<3.2e+00	<2.3e+00	<6.7e+00	<1.3e+01	<4.1e+01	<1.1e+01	<2.4e+00	<3.5e+00	<5.7e+00	<5.8e+00
01/29/08	NE-7.4		<9.3e+00	<5.4e+01	<5.6e+00	<4.8e+00	<5.7e+00	<5.5e+00	<1.2e+01	<1.1e+01	<6.1e+01	<9.3e+00	<5.6e+00	<6.1e+00	<1.4e+01	<9.0e+00
02/26/08	NE-7.4		<1.5e+01	<5.0e+01	<6.3e+00	<7.3e+00	<5.6e+00	<6.7e+00	<1.1e+01	<1.0e+01	<1.1e+02	<1.5e+01	<5.7e+00	<6.6e+00	<1.6e+01	<1.1e+01
03/25/08	NE-7.4	<1.4e+03	<1.4e+01	<5.6e+01	<8.9e+00	<7.7e+00	<6.8e+00	<6.4e+00	<1.3e+01	<9.6e+00	<1.1e+02	<1.4e+01	<7.3e+00	<8.6e+00	<1.9e+01	<1.3e+01
04/29/08	NE-7.4		<1.4e+01	<5.5e+01	<6.7e+00	<9.0e+00	<6.5e+00	<7.8e+00	<1.5e+01	<1.3e+01	<1.2e+02	<1.4e+01	<7.6e+00	<7.0e+00	<1.4e+01	<1.3e+01
05/27/08	NE-7.4		<1.1e+01	<4.5e+01	<5.6e+00	<6.1e+00	<5.6e+00	<5.6e+00	<1.2e+01	<9.3e+00	<8.6e+01	<1.1e+01	<5.6e+00	<7.4e+00	<2.5e+01	<1.0e+01
06/24/08	NE-7.4	<1.4e+03	<1.2e+01	<5.2e+01	<6.7e+00	<6.9e+00	<6.9e+00	<5.2e+00	<1.2e+01	<1.3e+01	<9.7e+01	<1.2e+01	<6.8e+00	<8.3e+00	<2.7e+01	<1.1e+01
07/29/08	NE-7.4		<1.5e+01	<4.6e+01	<5.3e+00	<5.7e+00	<4.8e+00	<5.5e+00	<1.4e+01	<1.3e+01	<8.0e+01	<1.5e+01	<4.7e+00	<7.8e+00	<1.3e+01	<1.0e+01
08/26/08	NE-7.4		<1.5e+01	<5.8e+01	<7.8e+00	<9.9e+00	<8.0e+00	<8.1e+00	<1.7e+01	<1.4e+01	<1.0e+02	<1.5e+01	<7.6e+00	<7.9e+00	<1.8e+01	<1.2e+01
09/30/08	NE-7.4	<1.3e+03	<1.2e+01	<3.8e+01	<4.4e+00	<5.2e+00	<3.6e+00	<4.6e+00	<9.0e+00	<7.6e+00	**5.0e+01**	<1.2e+01	<4.5e+00	<5.3e+00	<1.0e+01	<8.8e+00
10/28/08	NE-7.4		<9.7e+00	<5.5e+01	<6.4e+00	<5.9e+00	<7.0e+00	<6.4e+00	<1.5e+01	<1.3e+01	<7.7e+01	<9.7e+00	<5.6e+00	<7.8e+00	<1.6e+01	<8.5e+00
11/25/08	NE-7.4		<9.6e+00	<3.2e+01	<4.0e+00	<4.8e+00	<3.9e+00	<4.9e+00	<9.6e+00	<7.8e+00	<5.8e+01	<9.6e+00	<4.8e+00	<5.5e+00	<1.1e+01	<6.4e+00
12/30/08	NE-7.4	<1.4e+03	<1.2e+01	<4.8e+01	<6.6e+00	<5.2e+00	<5.8e+00	<4.4e+00	<1.8e+01	<1.2e+01	<9.0e+01	<1.2e+01	<5.4e+00	<6.4e+00	<1.5e+01	<1.1e+01
01/29/08	N-19.3		<1.4e+01	<5.9e+01	<5.9e+00	<8.1e+00	<7.9e+00	<7.4e+00	<1.6e+01	<1.3e+01	<1.2e+02	<1.4e+01	<7.2e+00	<8.3e+00	<1.9e+01	<1.4e+01
02/26/08	N-19.3		<9.7e+00	<3.5e+01	<4.9e+00	<4.7e+00	<4.9e+00	<4.9e+00	<1.1e+01	<8.3e+00	<8.7e+01	<9.7e+00	<4.5e+00	<5.6e+00	<1.2e+01	<8.6e+00
03/25/08	N-19.3	<1.3e+03	<1.1e+01	<5.6e+01	<6.9e+00	<7.0e+00	<6.9e+00	<6.0e+00	<1.4e+01	<1.4e+01	<1.0e+02	<1.1e+01	<6.6e+00	<8.7e+00	<1.6e+01	<1.3e+01
04/29/08	N-19.3		<1.4e+01	<6.3e+01	<7.3e+00	<7.9e+00	<6.7e+00	<8.3e+00	<1.5e+01	<1.2e+01	<9.6e+01	<1.4e+01	<7.2e+00	<9.5e+00	<1.9e+01	<1.2e+01
05/27/08	N-19.3		<7.3e+00	<3.1e+01	<4.1e+00	<4.1e+00	<4.1e+00	<3.9e+00	<8.1e+00	<8.0e+00	**2.0e+00**	<7.3e+00	<3.9e+00	<6.5e+00	<1.7e+01	<6.6e+00
06/24/08	N-19.3	<1.4e+03	<1.2e+01	<5.2e+01	<6.7e+00	<6.9e+00	<6.9e+00	<5.2e+00	<1.2e+01	<1.3e+01	<9.7e+01	<1.2e+01	<6.8e+00	<8.3e+00	<2.7e+01	<1.1e+01
07/29/08	N-19.3		<1.2e+01	<4.3e+01	<5.6e+00	<6.5e+00	<5.2e+00	<4.6e+00	<9.0e+00	<1.4e+01	<8.7e+01	<1.2e+01	<5.0e+00	<5.7e+00	<1.1e+01	<9.4e+00
08/26/08	N-19.3		<1.3e+01	<4.5e+01	<7.9e+00	<9.1e+00	<6.0e+00	<6.0e+00	<1.5e+01	<9.3e+00	**5.8e+01**	<1.3e+01	<7.8e+00	<7.5e+00	<1.3e+01	<1.1e+01
09/30/08	N-19.3	<1.3e+03	<1.4e+01	<4.5e+01	<6.2e+00	<7.4e+00	<6.2e+00	<6.0e+00	<1.4e+01	<1.1e+01	**6.1e+01**	<1.4e+01	<5.5e+00	<6.2e+00	<1.5+01	<9.1e+00
10/28/08	N-19.3		<9.0e+00	<5.6e+01	<6.2e+00	<5.5e+00	<6.8e+00	<5.5e+00	<1.2e+01	<1.3e+01	<7.3e+01	<9.0e+00	<4.8e+00	<5.7e+00	<1.6e+01	<9.3e+00
11/25/08	N-19.3		<1.1e+01	<4.8e+01	<5.2e+00	<5.8e+00	<5.0e+00	<5.3e+00	<1.5e+01	<8.6e+00	<8.3e+01	<1.1e+01	<4.7e+00	<6.9e+00	<1.5e+01	<1.1e+01
12/30/08	N-19.3	<1.4e+03	<9.4e+00	<5.1e+01	<5.0e+00	<9.2e+00	<5.9e+00	<6.6e+00	<1.4e+01	<1.3e+01	<8.7e+01	<9.4e+00	<5.6e+00	<6.7e+00	<1.9e+01	<1.0e+01
Required LLD's		3.00e+03	1.50e+01		1.50e+01	1.50e+01	1.50e+01	1.80e+01	3.00e+01	1.50e+01		1.50e+01	1.50e+01	1.50e+01	3.00e+01	1.50e+01
Reportable Level		3.00e+04	2.00e+02		1.00e+03	3.00e+02	3.00e+01	5.00e+01	4.00e+02	2.00e+01		2.00e+02	1.00e+03	4.00e+02	3.00e+02	4.00e+02

Graph 2 -- 2008 Environmental Surface Water Tritium Results



E. Surface Drinking Water Program

Surface drinking water was collected at two monitoring locations. Table 1 -- Comanche Peak Nuclear Power Plant Radiological Environmental Monitoring Program for 2008 details the location and types of analysis required. Samples of water from Squaw Creek reservoir were collected at the monitoring location NNW-0.1 and analyzed at detection levels required for drinking water standards even though the water is not allowed to be used as potable water. Monitoring location N-9.9 was used as a surface drinking water location based on the proximity of the City of Granbury intake to the Granbury potable water system. All surface drinking water samples were collected weekly and then composited for Iodine-131 analysis, gamma isotopic analysis, and gross beta analysis on a monthly basis. Tritium analysis was performed on a quarterly basis.

For the year 2008, all samples were analyzed for gamma emitting radionuclides. The results are reported in Table 8 – Environmental Surface Drinking Water Tritium, Gross Beta and Gamma Isotopic Results. There were no gamma emitting radionuclides identified in any of the twenty-four composite samples. Tritium reported in Squaw Creek reservoir ranged from **1.30E+04 pCi/l to 1.34E+04 pCi/l** and **averaged 1.32E+04 pCi/l.** Tritium reported from all Lake Granbury water samples indicated less than the required LLD as expected. Graph 4 – 2008 Environmental Surface Drinking Water Tritium Results trends the results reported for the year 2008. Gross Beta results at the indicator location NNW-0.1 ranged from **9.8E+00 pCi/l to 1.07E+01 pCi/l** with an average of **2.67E+01 pCi/l**. Gross Beta results at the control location N-9.9 ranged from **4.4E+00 pCi/l to 2.4E+01 pCi/l** with an average of **1.17E+01 pCi/l.** Graph 5 – 2008 Environmental Surface Drinking Water Gross Beta Results trends the gross beta results for the two monitor locations and indicates no influence from Comanche Peak in the levels detected in the two different bodies of water. Past gross beta results for Lake Granbury have been as high as **83 pCi/l.** The gross beta results received are within values previously reported and there is no reportable level for gross beta so no action is required at this time.

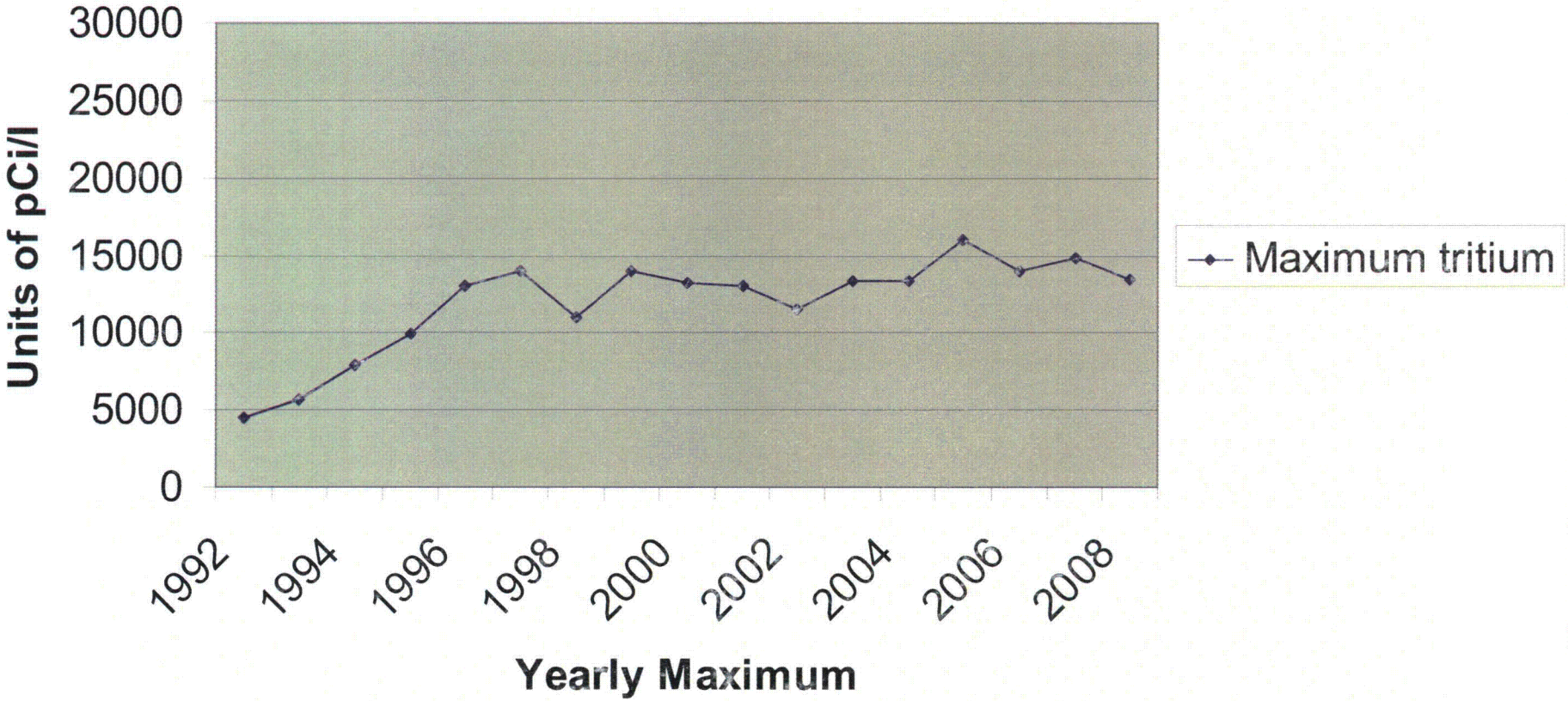
For the year 2008 there was one exception to the Surface Drinking Water Program.

For sample analysis on samples collected on 10/28/08, the MDC's for Gross Beta analysis were not met. This was due to a large amount of solids being present in the sample. Smart form 2008-003820 was written.

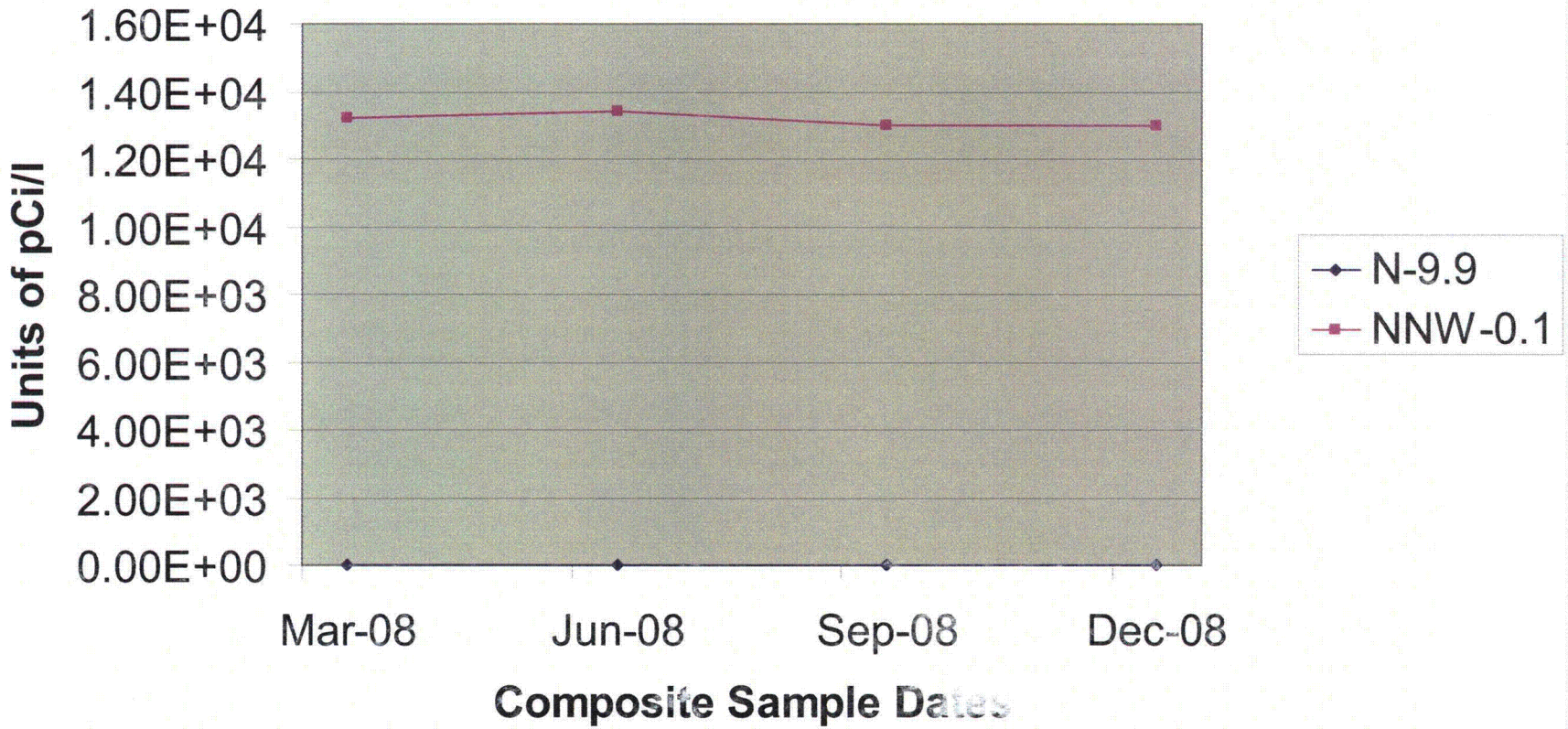
Table 8 -- 2008 Environmental Surface Drinking Water Tritium, Gross Beta and Gamma Isotopic Results
(Units of pCi/l)

Date	Location	H-3	Gross Beta	Nuclides I-131	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	La-140	Mn-54	Nb-95	Zn-65	Zr-95
01/29/08	NNW-0.1		2.52e+01	<9.0e-01	<1.0e+01	<3.5e+00	<3.1e+00	<3.6e+00	<2.9e+00	<7.9e+00	<1.0e+01	<3.2e+00	<4.5e+00	<9.2e+00	<6.4e+00
02/26/08	NNW-0.1		1.49e+01	<7.5e-01	<1.3e+01	<4.7e+00	<3.7e+00	<3.4e+00	<3.6e+00	<1.0e+01	<1.3e+01	<3.5e+00	<6.1e+00	<8.6e+00	<8.6e+00
03/25/08	NNW-0.1	1.32e+04	2.95e+01	<8.6e-01	<1.5e+01	<4.5e+00	<4.4e+00	<3.6e+00	<3.6e+00	<9.8e+00	<1.5e+01	<4.0e+00	<5.7e+00	<1.0e+01	<8.2e+00
04/29/08	NNW-0.1		2.03e+01	<9.7e-01	<1.3e+01	<2.5e+00	<2.3e+00	<2.1e+00	<2.0e+00	<6.2e+00	<1.3e+01	<2.1e+00	<3.8e+00	<7.0e+00	<4.9e+00
05/27/08	NNW-0.1		2.88e+01	<7.7e-01	<3.9e+00	<1.4e+00	<1.4e+00	<1.3e+00	<1.4e+00	<3.4e+00	<3.9e+00	<1.1e+00	<1.5e+00	<2.7e+00	<3.7e+00
06/24/08	NNW-0.1	1.34e+04	3.3e+01	<8.1e-01	<1.4e+01	<4.2e+00	<3.6e+00	<3.9e+00	<3.7e+00	<9.9e+00	<1.4e+01	<3.4e+00	<4.1e+00	<1.2e+01	<6.2e+00
07/29/08	NNW-0.1		2.9e+01	<8.5e-01	<7.8e+00	<2.1e+00	<2.2e+00	<1.9e+00	<1.5e+00	<4.9e+00	<7.8e+00	<1.8e+00	<2.6e+00	<3.4e+00	<3.7e+00
08/26/08	NNW-0.1		4.07e+01	<7.2e-01	<1.5e+01	<5.4e+00	<4.2e+00	<3.2e+00	<3.6e+00	<9.1e+00	<1.5e+01	<3.7e+00	<4.9e+00	<8.7e+00	<7.4e+00
09/30/08	NNW-0.1	1.30e+04	3.47e+01	<6.9e-01	<1.0e+01	<2.8e+00	<2.5e+00	<2.3e+00	<2.3e+00	<5.8e+00	<1.0e+01	<2.3e+00	<4.2e+00	<6.4e+00	<4.6e+00
10/28/08	NNW-0.1		9.8e+00	<8.6e-01	<1.3e+01	<3.9e+00	<3.2e+00	<3.9e+00	<3.9e+00	<8.1e+00	<1.3e+01	<3.2e+00	<6.2e+00	<1.3e+01	<6.9e+00
11/25/08	NNW-0.1		2.73e+01	<9.8e-01	<1.2e+01	<4.7e+00	<6.0e+00	<4.8e+00	<4.6e+00	<9.5e+00	<1.2e+01	<4.1e+00	<6.4e+00	<1.1e+01	<1.1e+01
12/30/08	NNW-0.1	1.30e+04	2.67e+01	<9.5e-01	<1.4e+01	<3.6e+00	<3.5e+00	<2.9e+00	<3.1e+00	<8.4e+00	<1.4e+01	<3.1e+00	<4.2e+00	<8.7e+00	<5.7e+00
01/29/08	N-9.9		9.1e+00	<8.7e-01	<1.2e-02	<3.2e-03	<3.1e-03	<2.8e-03	<2.9e-03	<7.0e-03	<1.2e-02	<2.4e-03	<3.6e-03	<8.0e-03	<6.1e-03
02/26/08	N-9.9		2.4e+01	<7.6e-01	<1.4e+01	<4.2e+00	<4.0e+00	<3.5e+00	<3.3e+00	<8.7e+00	<1.4e+01	<4.4e+00	<4.5e+00	<8.1e+00	<8.9e+00
03/25/08	N-9.9	<1.3e+03	1.16e+01	<8.4e-01	<1.2e+01	<5.4e+00	<5.2e+00	<4.2e+00	<3.8e+00	<1.3e+01	<1.2e+01	<5.6e+00	<6.0e+00	<1.2e+01	<6.4e+00
04/29/08	N-9.9		9.9e+00	<9.7e-01	<1.3e+01	<4.5e+00	<3.9e+00	<3.2e+00	<3.5e+00	<8.9e+00	<1.3e+01	<3.9e+00	<5.2e+00	<8.3e+00	<7.0e+00
05/27/08	N-9.9		9.4e+00	<7.2e-01	<9.5e+00	<3.7e+00	<3.3e+00	<3.3e+00	<3.4e+00	<8.5e+00	<9.5e+00	<3.7e+00	<6.6e+00	<1.5e+01	<5.7e+00
06/24/08	N-9.9	<1.4e+03	1.1e+01	<8.2e-01	<1.3e+01	<4.0e+00	<2.9e+00	<3.4e+00	<3.7e+00	<8.9e+00	<1.3e+01	<2.9e+00	<3.8e+00	<9.2e+00	<6.8e+00
07/29/08	N-9.9		1.16e+01	<8.0e-01	<8.3e+00	<1.9e+00	<2.0e+00	<1.7e+00	<1.7e+00	<5.1e+00	<8.3e+00	<1.8e+00	<2.5e+00	<3.9e+00	<3.5e+00
08/26/08	N-9.9		8.8e+00	<7.1e-01	<1.5e+01	<3.9e+00	<4.1e+00	<3.7e+00	<3.6e+00	<9.7e+00	<1.5e+01	<3.5e+00	<5.0e+00	<8.1e+00	<7.5e+00
09/30/08	N-9.9	<1.3e+03	4.4e+00	<8.1e-01	<8.6e+00	<2.3e+00	<2.6e+00	<1.8e+00	<1.9e+00	<5.4e+00	<8.6e+00	<2.4e+00	<3.2e+00	<4.7e+00	<4.4e+00
10/28/08	N-9.9		1.47e+01	<8.6e-01	<1.4e+01	<5.8e+00	<4.6e+00	<4.5e+00	<4.2e+00	<9.2e+00	<1.4e+01	<3.5e+00	<6.6e+00	<1.7e+01	<8.9e+00
11/25/08	N-9.9		1.45e+01	<9.7e-01	<1.2e+01	<3.7e+00	<3.9e+00	<3.0e+00	<3.0e+00	<7.6e+00	<1.2e+01	<3.2e+00	<5.4e+00	<9.0e+00	<7.5e+00
12/30/08	N-9.9	<1.4e+03	1.19e+01	<9.9e-01	<1.2e+01	<2.9e+00	<3.5e+00	<2.7e+00	<2.9e+00	<7.1e+00	<1.2e+01	<2.5e+00	<3.6e+00	<7.6e+00	<5.1e+00
Required LLD's		2.00E+03	4.00E+00	1.00E+00	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.80E+01	3.00E+01	1.50E+01	1.50E+01	1.50E+01	3.00E+01	1.50E+01
Reportable Level		2.00E+04	None	2.00E+00	2.00E+02	1.00E+03	3.00E+02	3.00E+01	5.00E+01	4.00E+02	2.00E+02	1.00E+03	4.00E+02	3.00E+02	4.00E+02

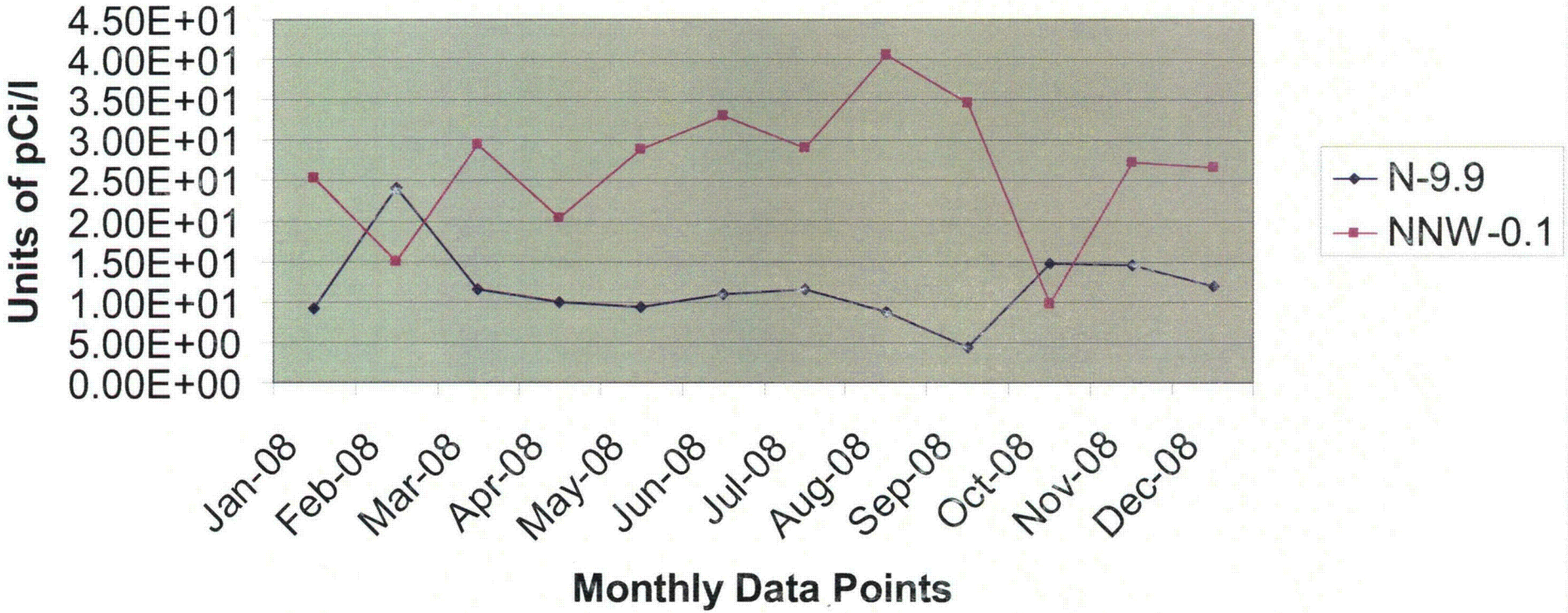
Graph 3 -- Squaw Creek Maximum Tritium Values



Graph 4 -- 2008 Environmental Surface Drinking Water Tritium Results



Graph 5 -- 2008 Environmental Surface Drinking Water Gross Beta Results



F. Ground Water Program

Table 1 – Comanche Peak Nuclear Power Plant Radiological Environmental Monitoring Program for 2008 specifies the five groundwater monitoring locations. Groundwater supplies in the site area are not affected by plant effluents and are sampled only to provide confirmation that groundwater is not affected by plant discharges. Groundwater samples were collected quarterly and analyzed for gamma isotopes and tritium at each location.

For the year 2008 a total of twenty groundwater samples were collected from the five different monitoring locations. There were no radionuclides identified in any of the samples. All required LLDs were met for each required gamma emitting radionuclide. Tritium analysis was performed on twenty samples, all indicated less than the required LLD. Results for all the groundwater analyses are reported in Table 9 - 2008 Environmental Groundwater Tritium and Gamma Isotopic Results. These results confirm that plant discharges are having no effect on groundwater in the area surrounding Comanche Peak.

For the year 2008, there were no exceptions to the Ground Water Program.

Table 9 -- 2008 Environmental Groundwater Tritium and Gamma Isotopic Results
(Units of pCi/l)

Date	Location	Nuclides H-3	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
03/25/08	SSE-4.6	<1.4e+03	<1.3e+01	<6.5e+00	<8.3e+00	<5.7e+00	<7.0e+00	<1.6e+01	<1.3e+01	<1.3e+01	<7.5e+00	<9.1e+00	<1.4e+01	<1.3e+01
06/24/08	SSE-4.6	<1.2e+03	<1.2e+01	<5.1e+00	<4.9e+00	<5.2e+00	<4.8e+00	<1.1e+01	<1.4e+01	<1.2e+01	<4.7e+00	<6.0e+00	<1.9e+01	<8.5e+00
09/30/08	SSE-4.6	<1.3e+03	<7.1e+00	<4.7e+00	<4.2e+00	<3.8e+00	<4.0e+00	<8.8e+00	<7.7e+00	<7.1e+00	<3.9e+00	<5.4e+00	<8.9e+00	<6.7e+00
12/30/08	SSE-4.6	<1.3e+03	<1.4e+01	<7.6e+00	<7.5e+00	<6.6e+00	<7.7e+00	<1.9e+01	<1.4e+01	<1.4e+01	<6.3e+00	<9.3e+00	<2.2e+01	<1.3e+01
03/25/08	N-1.45	<1.4e+03	<1.2e+01	<6.3e+00	<8.8e+00	<6.8e+00	<7.3e+00	<1.4e+01	<1.5e+01	<1.2e+01	<8.0e+00	<9.9e+00	<1.5e+01	<1.4e+01
06/24/08	N-1.45	<1.2e+03	<1.1e+01	<4.8e+00	<3.6e+00	<4.2e+00	<4.2e+00	<7.8e+00	<1.5e+01	<1.1e+01	<4.0e+00	<4.9e+00	<1.6e+01	<7.3e+00
09/30/08	N-1.45	<1.3e+03	<1.3e+01	<7.7e+00	<7.0e+00	<6.9e+00	<7.0e+00	<1.5e+01	<1.4e+01	<1.3e+01	<6.4e+00	<1.1e+01	<2.5e+01	<1.0e+01
12/30/08	N-1.45	<1.3e+03	<1.4e+01	<7.0e+00	<7.7e+00	<6.1e+00	<6.3e+00	<1.4e+01	<9.9e+00	<1.4e+01	<6.4e+00	<7.7e+00	<1.4e+01	<1.3e+01
03/25/08	N-9.8	<1.4e+03	<1.2e+01	<4.0e+00	<4.1e+00	<4.4e+00	<3.9e+00	<8.9e+00	<1.4e+01	<1.2e+01	<4.2e+00	<6.6e+00	<1.0e+01	<7.5e+00
06/24/08	N-9.8	<1.2e+03	<1.3e+01	<4.5e+00	<4.9e+00	<3.7e+00	<4.0e+00	<1.1e+01	<1.2e+01	<1.3e+01	<4.5e+00	<5.6e+00	<9.2e+00	<8.3e+00
09/30/08	N-9.8	<1.3e+03	<1.4e+01	<7.3e+00	<7.4e+00	<5.6e+00	<6.5e+00	<1.5e+01	<1.2e+01	<1.4e+01	<7.1e+00	<7.8e+00	<1.4e+01	<1.1e+01
12/30/08	N-9.8	<1.4e+03	<1.1e+01	<5.0e+00	<5.3e+00	<5.1e+00	<4.5e+00	<1.2e+01	<1.0e+01	<1.1e+01	<4.4e+00	<6.2e+00	<1.7e+01	<8.7e+00
03/25/08	W-1.2	<1.4e+03	<1.2e+01	<7.0e+00	<7.6e+00	<7.4e+00	<6.5e+00	<1.6e+01	<1.4e+01	<1.2e+01	<8.4e+00	<8.0e+00	<1.9e+01	<1.2e+01
06/24/08	W-1.2	<1.2e+03	<8.4e+00	<2.6e+00	<2.5e+00	<2.5e+00	<2.4e+00	<5.7e+00	<1.4e+01	<8.4e+00	<2.2e+00	<3.1e+00	<5.6e+00	<4.2e+00
09/30/08	W-1.2	<1.3e+03	<1.4e+01	<5.7e+00	<9.0e+00	<6.0e+00	<6.5e+00	<1.6e+01	<1.1e+01	<1.4e+01	<5.5e+00	<7.7e+00	<1.8e+01	<1.1e+01
12/30/08	W-1.2	<1.3e+03	<1.3e+01	<6.2e+00	<7.5e+00	<4.9e+00	<5.6e+00	<1.3e+01	<1.0e+01	<1.3e+01	<5.6e+00	<6.8e+00	<1.5e+01	<1.1e+01
03/25/08	WSW-0.1	<1.2e+03	<1.2e+01	<7.3e+00	<7.0e+00	<6.8e+00	<6.0e+00	<1.7e+01	<1.1e+01	<1.2e+01	<4.6e+00	<8.6e+00	<1.7e+01	<1.2e+01
06/24/08	WSW-0.1	<1.3e+03	<1.2e+01	<4.5e+00	<4.5e+00	<5.1e+00	<4.3e+00	<1.1e+01	<1.4e+01	<1.2e+01	<4.7e+00	<6.5e+00	<1.5e+01	<8.0e+00
09/30/08	WSW-0.1	<1.3e+03	<1.3e+01	<6.2e+00	<7.5e+00	<5.7e+00	<5.4e+00	<1.1e+01	<9.5e+00	<1.3e+01	<5.4e+00	<6.8e+00	<1.5e+01	<1.1e+01
12/30/08	WSW-0.1	<1.3e+03	<1.4e+01	<5.4e+00	<7.4e+00	<6.4e+00	<6.3e+00	<1.6e+01	<1.2e+01	<1.4e+01	<6.0e+00	<7.2e+00	<1.3e+01	<1.0e+01
Required LLD's		3.00E+03	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.80E+01	3.00E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	3.00E+01	1.50E+01
Reportable Levels		2.00E+04	2.00E+02	1.00E+03	3.00E+02	3.00E+01	5.00E+01	4.00E+02	2.00E+01	2.00E+02	1.00E+03	4.00E+02	3.00E+02	4.00E+02

G. Sediment Program

Shoreline sediments were collected at four different monitoring locations. One sample location is along the shore of Squaw Creek Reservoir, one sample location is on Squaw Creek down stream of the dam discharge and two locations are along Lake Granbury's shores. Each sample is collected on a six-month frequency and sent to the contract laboratory for analysis by gamma spectrometry.

The process of shoreline sedimentation is a complex evolution whereby potential radionuclides and stable elements may concentrate in the bottom sediment of particular bodies of water. The concentrations are effected by such things as colloidal particles combining with chelating agents and biological action of bacteria and other benthic organisms. Monitoring of the area shorelines provides one of the first and best indicators of radionuclide deposition.

For the year 2008 results from the gamma isotopic analysis of shoreline sediments is reported in Table 10 – 2008 Environmental Sediment Gamma Isotopic Results. As expected and in agreement with previous results from both the pre-operational and operational programs, naturally occurring Potassium-40 was detected in all eight samples. Radioactive nuclides required to be analyzed for were performed and all but one sample indicated less than the required LLDs. During previous years, both pre-operational and operational, positive indications occasionally had been noted for Cesium-137 and during 2008 there was one positive Cesium-137 results reported. The results were above the required LLD. The only other positive value reported for 2008 was for naturally occurring Beryllium-7. As expected, there were no results in any sediment sample that indicated any direct influence from CPNPP discharges to the local environment.

For the year 2008, there were no exceptions to the Sediment Program.

Table 10 -- 2008 Environmental Sediment Gamma Isotopic Results
(Units of pCi/kg)

Date	Location	Nuclides Ba-140	Be-7	Co-58	Co-60	Cs-134	Cs-137	Fe-59	I-131	K-40	La-140	Mn-54	Nb-95	Zn-65	Zr-95
01/15/08	SE-5.3	<2.7e+02	<5.6e+02	<7.5e+01	<9.6e+01	<5.2e+01	<5.7e+01	<1.5e+02	<9.0e+01	**4.77e+03**	<1.5e+02	<5.7e+01	<9.4e+01	<2.6e+02	<1.2e+02
01/15/08	NNE-1.0	<9.8e+01	<1.7e+02	<2.3e+01	<3.0e+01	<1.8e+01	<2.2e+01	<5.3e+01	<3.0e+01	**1.5e+03**	<5.6e+01	<2.0e+01	<3.4e+01	<1.0e+02	<4.3e+01
01/15/08	NE-7.4	<1.2e+02	<2.2e+02	<2.3e+01	<2.4e+01	<2.4e+01	<2.1e+01	<7.0e+01	<3.7e+01	**1.87e+03**	<6.1e+01	<2.2e+01	<3.0e+01	<8.8e+01	<3.5e+01
01/15/08	N-9.9	<2.0e+02	<3.1e+02	<4.3e+01	<4.3e+01	<2.4e+01	<3.4e+01	<9.5e+01	<6.2e+01	**4.98e+03**	<8.4e+01	<3.5e+01	<6.2e+01	<1.9e+02	<6.3e+01
07/01/08	SE-5.3	<2.5e+02	**3.0e+02**	<3.5e+01	<3.3e+01	<2.4e+01	**6.3e+01**	<7.8e+01	<1.4e+02	**5.38e+03**	<1.5e+02	<2.3e+01	<4.4e+01	<1.5e+02	<5.7e+01
07/01/08	NNE-1.0	<2.3e+02	<3.0e+02	<3.3e+01	<3.9e+01	<2.5e+01	<3.2e+01	<9.0e+01	<1.5e+02	**5.16e+03**	<1.3e+02	<2.4e+01	<4.4e+01	<1.5e+02	<6.3e+01
07/01/08	NE-7.4	<8.6e+01	<3.2e+02	<3.4e+01	<3.9e+01	<2.7e+01	<3.3e+01	<9.4e+01	<1.5e+02	**2.03e+03**	<8.6e+01	<3.2e+01	<6.8e+01	<1.4e+02	<5.4e+01
07/01/08	N-9.9	<3.7e+02	<4.3e+02	<5.1e+01	<3.3e+01	<4.3e+01	<4.6e+01	<1.0e+02	<2.6e+02	**3.79e+03**	<1.7e+02	<4.7e+01	<7.4e+01	<2.3e+02	<9.1e+01
Required LLD's						1.50E+02	1.80E+02								
Reportable Levels						None	None								

Fish Program

Fish samples were collected at two locations during the year 2008. One monitoring location is an area approximately two miles east-northeast of the site on Squaw Creek Reservoir. The second location is on Lake Granbury approximately eight miles north-northeast of the site. Fish sampling is scheduled for the months of April and October. CPNPP has contracted with an off site vendor for collection of fish from these areas. The collected fish are frozen and shipped to the independent laboratory where the edible portions are analyzed for gamma emitting radio-nuclides.

For the year 2008, the results of the analysis performed on the collected fish samples are reported in Table 11 -- 2008 Environmental Fish Gamma Isotopic Results. Catfish, Drum and Bass samples were analyzed as indicated in the table. There were no positive results reported except for the expected Potassium-40, which is naturally occurring in all living organisms. All required radionuclide results were reported as less than the required LLDs. As a result of the fish-sampling program, there were no anomalies noted and no indication of any influence on the surrounding environment from Comanche Peak plant discharges.

For the year 2008, there were no exceptions to the Fish Program.

No abnormal results were reported by CPNPP or by the State of Texas. As expected, Potassium-40 was the only positive isotope found.

Table 11 -- 2008 Environmental Fish Gamma Isotopic Results
(Units of pCi/kg wet)

Date	Location	Nuclides Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	I-131	K-40	La-140	Mn-54	Nb-95	Zn-65	Zr-95	Fish Type
04/29/2008	Squaw Creek	<1.2e+02	<5.6e+01	<9.2e+01	<7.2e+01	<6.6e+01	<1.5e+02	<1.1e+02	**2.33e+03**	<1.2e+02	<5.4e+01	<6.5e+01	<1.6e+02	<1.5e+02	***Catfish***
04/29/2008	Squaw Creek	<1.3e+02	<1.4e+01	<2.0e+01	<4.9e+01	<5.7e+01	<1.9e+02	<7.7e+01	**3.44e+03**	<1.3e+02	<4.9e+01	<5.3e+01	<1.8e+02	<1.3e+02	***Bass***
10/14/2008	Squaw Creek	<5.4e+01	<6.3e+01	<1.0e+02	<6.3e+01	<1.2e+02	<1.3e+02	<1.6e+02	**3.54e+03**	<5.4e+01	<7.8e+01	<6.5e+01	<1.9e+02	<1.2e+02	***Catfish***
10/14/2008	Squaw Creek	<9.2e+01	<4.6e+01	<4.9e+01	<3.5e+01	<4.2e+01	<9.0e+01	<8.1e+01	**3.21e+03**	<9.2e+01	<4.9e+01	<4.1e+01	<1.2e+02	<7.4e+01	***Bass***
04/29/2008	Lake Granbury	<8.8e+01	<3.8e+01	<3.9e+01	<4.3e+01	<3.8e+01	<1.3e+02	<8.5e+01	**2.75e+03**	<8.8e+01	<5.5e+01	<6.4e+01	<9.6e+01	<9.1e+01	***Drum***
04/29/2008	Lake Granbury	<9.8e+01	<5.0e+01	<7.4e+01	<4.5e+01	<4.5e+01	<9.9e+01	<7.3e+01	**2.84e+03**	<9.8e+01	<5.6e+01	<6.2e+01	<9.0e+01	<8.1e+01	***Bass***
10/14/2008	Lake Granbury	<1.4e+02	<8.0e+01	<6.1e+01	<7.0e+01	<5.0e+01	<1.4e+02	<1.1e+02	**1.89e+03**	<1.4e+02	<7.3e+01	<7.3e+01	<1.8e+02	<1.4e+02	***Catfish***
10/14/2008	Lake Granbury	<1.3e+02	<8.1e+01	<7.4e+01	<5.7e+01	<1.3e+01	<9.3e+01	<7.4e+01	**3.17e+03**	<1.3e+02	<5.0e+01	<5.6e+01	<1.5e+02	<7.0e+01	***Bass***
Required LLD's			1.30E+02	1.30E+02	1.30E+02	1.50E+02	2.60E+02				1.30E+02		2.60E+02		
Reportable Levels			3.00E+04	1.00E+04	1.00E+03	2.00E+03	1.00E+04				3.00E+04		2.00E+04		

I. Food Products Program

Food products (pecan) were collected at the time of harvest. The samples are obtained at monitoring location ENE-9.0 and are shipped to the contract laboratory for gamma isotopic analysis.

For the year 2008, results of the gamma isotopic analyses are reported in Table 12 -- 2008 Environmental Food Products Gamma Isotopic Results. Naturally occurring Potassium 40 was detected in the sample as expected, and there were no other gamma emitting radionuclides identified.

For the year 2008, there were no exceptions to the Food Products program.

Table 12 -- 2008 Environmental Food Products Gamma Isotopic Results
(Units of pCi/kg wet)

Food Type – Pecans

Date	Location	Nuclides Ba-140	Be-7	Co-58	Co-60	Cs-134	Cs-137	Fe-59	I-131	K-40	La-140	Mn-54	Nb-95	Zn-65	Zr-95
11/11/08	ENE-9.0	<7.0e+01	<2.5e+02	<3.1e+01	<3.4e+01	<3.4e+01	<2.8e+01	<6.7e+01	<6.0e+01	**4.87e+03**	<7.0e+01	<3.1e+01	<3.2e+01	<7.8e+01	<5.3e+01
Required LLD's						6.00E+01	8.00E+01		6.00E+01						
Reportable Levels						1.00E+03	2.00E+03		1.00E+02						

J. Broadleaf Program

Broadleaf sample collection is conducted in accordance with the requirements of the Radiological Environmental Monitoring Program. The program specifies the sampling based on the absence of milk monitoring locations. One broadleaf control location is located at SW-13.5 in the vicinity of the previous control milk location. The two indicator locations, N-1.45 and SW-1.0, are located near the site boundaries. The broadleaf samples consist of mainly native grasses and cedar leaves and are analyzed for Iodine-131 and gamma emitting isotopes.

For the year 2008, all radionuclide analysis met their required LLDs and there was no indication of gamma emitting radionuclides. There were no indications of Iodine-131 being detected. The naturally occurring radionuclide of Potassium-40 was found in 36 of 36 samples taken. The radionuclide Beryllium-7 was present in 35 of 36 samples.

For the year 2008, there were no exceptions to the Broadleaf Program.

Table 13 -- 2008 Environmental Broadleaf Iodine-131 and Gamma Isotopic Results
(Units of pCi/kg wet)

		Nuclides I-131	Ba-140	Be-7	Co-58	Co-60	Cs-134	Cs-137	Fe-59	K-40	La-140	Mn-54	Nb-95	Zn-65	Zr-95
Date	Location														
01/29/2008	N-1.45	<5.2E+01	<7.8E+01	**1.11E+03**	<2.3E+01	<2.2E+01	<2.2E+01	<2.0E+01	<4.8E+01	**2.71E+03**	<7.8E+01	<2.0E+01	<3.3E+01	<5.5E+01	<4.4E+01
02/26/2008	N-1.45	<3.6e+01	<6.2e+01	**1.68e+03**	<3.5e+01	<4.3e+01	<3.8e+01	<4.0e+01	<7.1e+01	**2.8e+03**	<6.2e+01	<4.0e+01	<4.2e+01	<1.1e+02	<6.0e+01
03/25/2008	N-1.45	<2.0e+01	<1.4e+02	**2.77e+03**	<6.0e+01	<4.0e+01	<4.1e+01	<3.8e+01	<8.2e+01	**3.18e+03**	<1.4e+02	<4.2e+01	<6.4e+01	<1.3e+02	<9.9e+01
04/29/2008	N-1.45	<5.5e+01	<6.8e+01	**1.99e+03**	<4.6e+01	<5.6e+01	<5.1e+01	<4.3e+01	<1.0e+02	**4.09e+03**	<6.8e+01	<4.3e+01	<5.0e+01	<1.8e+02	<8.1e+01
05/27/2008	N-1.45	<3.4e+01	<1.2e+02	**4.1e+02**	<5.5e+01	<5.6e+01	<5.0e+01	<6.6e+01	<1.4e+02	**3.38e+03**	<1.2e+02	<6.9e+01	<7.6e+01	<1.6e+02	<1.0e+02
06/24/2008	N-1.45	<4.4e+01	<3.1e+02	**1.42e+03**	<6.7e+01	<6.3e+01	<4.2e+01	<4.9e+01	<1.5e+02	**5.7e+03**	<3.1e+02	<4.7e+01	<1.0e+02	<2.1e+02	<1.1e+02
07/29/2008	N-1.45	<5.2e+01	<1.9e+02	**1.11e+03**	<5.5e+01	<5.7e+01	<4.2e+01	<4.8e+01	<1.3e+02	**3.89e+03**	<1.9e+02	<5.0e+01	<7.7e+01	<1.2e+02	<9.8e+01
08/26/2008	N-1.45	<4.4e+01	<2.0e+02	**1.1e+03**	<8.1e+01	<7.4e+01	<6.0e+01	<6.6e+01	<1.5e+02	**4.06e+03**	<2.0e+02	<6.3e+01	<8.6e+01	<1.6e+02	<1.2e+02
09/30/2008	N-1.45	<5.4e+01	<7.0e+01	**2.7e+02**	<3.9e+01	<3.8e+01	<4.3e+01	<3.3e+01	<8.8e+01	**5.42e+03**	<7.0e+01	<3.7e+01	<4.4e+01	<9.5e+01	<6.8e+01
10/28/2008	N-1.45	<4.4e+01	<7.7e+01	**1.63e+03**	<3.3e+01	<4.9e+01	<3.0e+01	<3.9e+01	<6.6e+01	**2.82e+03**	<7.7e+01	<3.5e+01	<4.6e+01	<8.6e+01	<5.9e+01
11/25/2008	N-1.45	<5.5e+01	<5.6e+01	**3.18e+03**	<2.7e+01	<2.8e+01	<2.8e+01	<2.8e+01	<5.5e+01	**1.65e+03**	<5.6e+01	<2.4e+01	<2.8e+01	<7.2e+01	<4.7e+01
12/30/2008	N-1.45	<5.0e+01	<9.5e+01	**4.3e+02**	<4.4e+01	<5.4e+01	<3.6e+01	<3.6e+01	<8.1e+01	**2.03e+03**	<9.5e+01	<4.2e+01	<4.3e+01	<9.6e+01	<6.0e+01
	Control														
01/29/2008	SW-13.5	<5.0E+01	<1.5E+02	**2.03E+03**	<5.3E+01	<6.1E+01	<3.9E+01	<4.2E+01	<1.2E+02	**2.79E+03**	<1.5E+02	<5.4E+01	<5.5E+01	<1.2E+02	<8.7E+01
02/26/2008	SW-13.5	<2.7e+01	<1.0e+02	**4.2e+02**	<4.9e+01	<5.2e+01	<4.9e+01	<4.1e+01	<1.2e+02	**7.62e+03**	<1.0e+02	<5.6e+01	<6.2e+01	<1.2e+02	<8.7e+01
03/25/2008	SW-13.5	<1.8e+01	<1.2e+02	**1.25e+03**	<3.9e+01	<4.4e+01	<4.0e+01	<3.2e+01	<9.9e+01	**7.4e+03**	<1.2e+02	<3.7e+01	<5.2e+01	<1.0e+02	<6.5e+01
04/29/2008	SW-13.5	<5.5e+01	<1.1e+02	**1.08e+03**	<5.0e+01	<7.3e+01	<4.8e+01	<5.3e+01	<1.2e+02	**4.95e+03**	<1.1e+02	<5.2e+01	<6.3e+01	<1.5e+02	<8.1e+01
05/27/2008	SW-13.5	<3.7e+01	<6.5e+01	**4.0e+02**	<4.4e+01	<3.7e+01	<3.7e+01	<3.7e+01	<8.6e+01	**5.59e+03**	<6.5e+01	<3.6e+01	<4.6e+01	<1.1e+02	<7.5e+01
06/24/2008	SW-13.5	<3.7e+01	<1.6e+02	**7.9e+02**	<4.7e+01	<4.6e+01	<4.6e+01	<4.6e+01	<1.0e+02	**4.03e+03**	<1.6e+02	<4.3e+01	<5.0e+01	<1.1e+02	<8.9e+01
07/29/2008	SW-13.5	<5.4e+01	<2.2e+02	**8.5e+02**	<6.6e+01	<5.6e+01	<5.5e+01	<4.9e+01	<1.0e+02	**3.42e+03**	<2.2e+02	<5.0e+01	<8.3e+01	<1.4e+02	<1.2e+02
08/26/2008	SW-13.5	<5.1e+01	<2.0e+02	<6.0e+02	<6.8e+01	<8.1e+01	<5.5e+01	<7.1e+01	<1.3e+02	**2.82e+03**	<2.0e+02	<8.0e+01	<9.3e+01	<2.3e+02	<1.2e+02
09/30/2008	SW-13.5	<5.3e+01	<8.0e+01	**3.4e+02**	<3.3e+01	<3.8e+01	<3.1e+01	<2.7e+01	<7.0e+01	**2.71e+03**	<8.0e+01	<2.6e+01	<3.4e+01	<7.6e+01	<4.6e+01
10/28/2008	SW-13.5	<4.5e+01	<1.1e+02	**8.1e+02**	<4.3e+01	<6.5e+01	<4.6e+01	<5.5e+01	<1.3e+02	**1.66e+03**	<1.1e+02	<4.9e+01	<6.1e+01	<1.5e+02	<8.2e+01
11/25/2008	SW-13.5	<5.6e+01	<1.0e+02	**1.71e+03**	<4.5e+01	<5.3e+01	<4.4e+01	<4.9e+01	<1.0e+02	**3.29e+03**	<1.0e+02	<4.0e+01	<5.3e+01	<1.1e+02	<7.6e+01
12/30/2008	SW-13.5	<5.5e+01	<1.2e+02	**1.96e+03**	<5.1e+01	<5.5e+01	<5.4e+01	<4.8e+01	<1.1e+02	**1.98e+03**	<1.2e+02	<5.1e+01	<7.8e+01	<1.3e+02	<1.0e+02
01/29/2008	SW-1.0	<4.1E+01	<6.7E+01	**9.19E+02**	<1.8E+01	<1.9E+01	<1.8E+01	<1.7E+01	<4.6E+01	**2.33E+03**	<6.7E+01	<1.8E+01	<2.4E+01	<4.6E+01	<3.5E+01
02/26/2008	SW-1.0	<5.6e+01	<1.2e+02	**7.2e+02**	<5.9e+01	<5.0e+01	<4.4e+01	<5.7e+01	<1.1e+02	**2.01e+03**	<1.2e+02	<5.3e+01	<4.0e+01	<1.5e+02	<1.1e+02
03/25/2008	SW-1.0	<5.9e+01	<1.9e+02	**1.08e+04**	<4.6e+01	<4.4e+01	<4.4e+01	<5.3e+01	<1.0e+02	**1.36e+03**	<1.9e+02	<4.8e+01	<5.8e+01	<1.0e+02	<8.6e+01
04/29/2008	SW-1.0	<5.1e+01	<1.1e+02	**1.09e+03**	<4.9e+01	<3.6e+01	<4.5e+01	<5.1e+01	<1.0e+02	**5.9e+03**	<1.1e+02	<5.0e+01	<6.0e+01	<1.4e+02	<1.0e+02
05/27/2008	SW-1.0	<3.0e+01	<9.7e+01	**2.4e+02**	<5.8e+01	<7.1e+01	<5.9e+01	<4.6e+01	<1.3e+02	**4.05e+03**	<9.7e+01	<6.7e+01	<7.6e+01	<1.5e+02	<1.1e+02
06/24/2008	SW-1.0	<4.2e+01	<1.9e+02	**1.48e+03**	<3.6e+01	<4.5e+01	<3.6e+01	<3.6e+01	<9.5e+01	**3.31e+03**	<1.9e+02	<3.3e+01	<5.1e+01	<9.5e+01	<6.4e+01
07/29/2008	SW-1.0	<5.7e+01	<2.3e+02	**6.2e+02**	<6.2e+01	<5.5e+01	<5.4e+01	<5.0e+01	<1.6e+02	**3.36e+03**	<2.3e+02	<5.0e+01	<5.9e+01	<1.5e+02	<1.1e+02
08/26/2008	SW-1.0	<4.5e+01	<1.6e+02	**8.4e+02**	<8.1e+01	<9.0e+01	<5.5e+01	<7.3e+01	<1.6e+02	**2.45e+03**	<1.6e+02	<7.4e+01	<1.1e+02	<1.9e+02	<1.4e+02
09/30/2008	SW-1.0	<5.2e+01	<1.5e+02	**5.8e+02**	<4.5e+01	<3.8e+01	<4.6e+01	<4.9e+01	<1.3e+02	**2.43e+03**	<1.5e+02	<5.0e+01	<6.5e+01	<1.2e+02	<<9.1e+01
10/28/2008	SW-1.0	<4.2e+01	<1.2e+02	**5.7e+02**	<4.6e+01	<4.7e+01	<4.8e+01	<4.0e+01	<1.0e+02	**3.16e+03**	<1.2e+02	<4.3e+01	<5.6e+01	<1.4e+02	<7.5e+01
11/25/2008	SW-1.0	<4.8e+01	<6.2e+01	**2.35e+03**	<3.7e+01	<3.7e+01	<3.2e+01	<3.3e+01	<7.1e+01	**2.87e+03**	<6.2e+01	<3.4e+01	<5.8e+01	<1.1e+02	<5.9e+01
12/30/2008	SW-1.0	<5.6e+01	<1.2e+02	**2.19e+03**	<5.0e+01	<5.4e+01	<5.0e+01	<4.5e+01	<1.0e+02	**1.52e+03**	<1.2e+02	<4.6e+01	<5.7e+01	<1.2e+02	<8.2e+01
Required LLD's		6.00E+01					6.00E+01	8.00E+01							
Reportable Levels		1.00E+02					1.00E+03	2.00E+03							

K. Conclusions

For the year 2008, based on the results presented in this report and from comparisons with the pre-operational and operational program results from previous years, it can be concluded that the impact of Comanche Peak on the environment is very small. **The only indication directly attributable to Comanche Peak is the tritium detected in Squaw Creek reservoir.**

Gross beta trend indications concerning Squaw Creek Reservoir are consistent with previous values and do not indicate any increase due to influence from Comanche Peak. Future data will be evaluated as it is received and changes will be addressed as necessary.

The atmospheric environment was sampled for airborne particulate matter, radioiodine and direct radiation. The terrestrial environment was sampled using groundwater, surface drinking water, food products and broadleaf vegetation. The aquatic environment was sampled using surface water, fish and shoreline sediments. The analyses of all these samples provided results that were below the measurement detection limits, or were indicative of expected natural terrestrial and cosmogenic levels, except for the tritium in the water samples of Squaw Creek reservoir. **The tritium in Squaw Creek reservoir is reaching equilibrium and is expected to remain well below the reportable level.**

There were no values reported during the year 2008 that exceeded any NRC reportable limit.

L. Inter Laboratory Comparison and Cross Check Program

Areva NP Environmental Laboratory is the independent contract laboratory that processes the radiological environmental monitoring samples collected by CPNPP. The contract laboratory is required to participate in an Interlaboratory Comparison Program in accordance with the ODCM Control 3.12.3. Areva NP participates in multiple programs to ensure all environmental media sent to them are analyzed to the proper standards.

Areva NP recently published "Analytical Service Annual Quality Assurance Status Report January-December 2008" which included current interlaboratory comparison results and two year trends as appropriate. These reports explain the Quality Control Program used by Areva NP during their respective time periods. Interlaboratory and third party quality control programs included the Environmental Crosscheck Program administered by Analytics, Inc., the Environmental Resource Associates (ERA) Proficiency Test (PT), the Department of Energy (DOE) Quality Assessment Program (QAP) and the Mixed Analyte Performance Evaluation Program (MAPEP). Areva NP also conducts an internal Quality Control Program that includes QC functions such as instrumentation

checks, blank samples, instrumentation backgrounds, duplicates, staff qualification analysis and process controls.

Extensive details of the results of the various interlaboratory and cross check programs are contained in the report mentioned above. A summary of the reporting period is reported below:

During the annual reporting period, there were 33 nuclides associated with 7 media types analyzed by means of the Laboratory's internal process control, DOE, ERA and Analytics quality control programs.

The Analytics Cross Check Program provided 391 individual environmental analyses for bias and 391 for precision. 92.6% fell within the Laboratory's acceptance criteria for bias and 98.2% were within tolerance limits for precision.

Of the 775 internal process control analyses evaluated for bias, 98.3% met Laboratory acceptance criteria. Also, 98.3% of the 465 results for precision were found acceptable.

Of the 165 QC charcoals evaluated for bias three did not meet the agreement criteria during this period and of the 12 evaluated for precision all samples met the acceptance criteria. All samples reported positive activity as expected.

Five of the 193 environmental analytical blanks analyzed reported positive activity greater than 3 times the standard deviation.

None of backgrounds processed reported activity above the 3 times the standard deviation limit.

The cumulative bias for the three programs evaluated to the internal Laboratory's performance criteria shows 96.5% of the 1166 individual results fell within acceptance criteria for bias while 98.2% of the 856 analyses fell within the acceptance criteria for precision.

A review was performed of all Condition Reports (CR) listed in the report. Thirty one CRs were closed during this period and thirty eight CRs were issued. No adverse trend can be detected and the Laboratory is pursuing resolution of all open CRs. As of December 31, 2008, a total of 14 CRs remain open.

There were two internal audits during the annual reporting period.

The independent laboratory, Areva, satisfies the requirements of the ODCM by their participation in the inter-laboratory and cross check programs documented in their annual report.

Appendix A

Comanche Peak Nuclear Power Plant
Land Use Census
2008

COPY

COMANCHE PEAK NUCLEAR POWER PLANT
LAND USE CENSUS 2008

The Land Use Census identified receptors within a five (5) mile radius of the plant in each of the sixteen (16) meteorological sectors. The Land Use Census was conducted July 17, 18, and 19, 2008 and includes the following items:

1. Evaluation of the 2008 Land Use Census
2. Nearest Resident by Sector, Distance, X/Q and D/Q
3. Nearest Garden by Sector, Distance and D/Q
4. Nearest Milk Animal by Sector, Distance and D/Q
5. Population by Sector and Distance
6. Environmental Sample Locations Table
7. Environmental Monitoring Locations Map- 2 Mile Radius
8. Environmental Monitoring Locations Map- 20 Mile Radius*
9. 5 Mile Sector and Road Map with Field Data*

*These maps are vaulted along with this census. Copies of this census will not contain a copy of these maps unless specifically requested.

Evaluation of the 2008 Land Use Census

The results of the 2008 Land Use Census were reviewed for impact on the Radiological Environmental Monitoring Program (REMP). The specific areas reviewed, that could be affected by changes found in the land use census, were the sampling requirements for milk, broadleaf vegetation and food products.

Reviewing the milk sampling requirements from the ODCM Table 3.12-1 requires that samples are to be obtained from milking animals in three locations within a 5 km distance having the highest potential dose. If none are available, samples are acceptable from milking animals in locations 5 to 8 km distance where doses are calculated to be greater than 1 mrem per year. A sample is also required at a control location. There are currently no identified milking animals (cow or goat) within the specified distances therefore, there will be no milk sampled during the year 2008.

Since not all milk samples are available, the broadleaf vegetation sampling specified in ODCM Table 3.12-1 is being performed. Broadleaf sample requirements are such that samples of broadleaf vegetation are to be collected from each of two offsite locations of the highest predicted annual average D/Q if milk sampling is not performed at all the required locations. Currently, broadleaf vegetation samples are collected at two indicator locations (N - 1.45 and SW - 1.0) and one control location (SW - 13.5). These indicator locations are near the site boundary in sectors where broadleaf vegetation is available and D/Q is high. Therefore, no change to the broadleaf sampling program is required.

Food product sample requirements of ODCM Table 3.12-1 requires that one sample of each principal class of food product be collected from any area that is irrigated with water in which liquid plant waste has been discharged. Of the gardens identified in the land use census, no gardens are located in any area that irrigates with water in which liquid plant wastes are discharged. Currently, food products are sampled from one indicator location (ENE - 9.0) when in season. The indicator location for ENE-9.0 for pecans at time of harvest will be continued since it is a major source of food products sold to the public.

The 2008 Land Use Census did not identify any locations that are "available for sampling" and that would yield a calculated dose 20% greater than at the current sampling locations.

Calculated values for the associated X/Q and D/Q values for each controlling receptor location and pathway are included along with the receptor distances in the data tables of this land use census. The values used to determine potential dose due to radioactive effluent discharges are the highest calculated values based on annual average values. The annual average X/Q used for dose calculations is 3.30E-6, tritium X/Q is 4.36E-6, and the D/Q value is 3.34 E-8. All these values are conservative based on the 2008 Land Use Census data and therefore no changes are required in the dose calculation parameters as verified by the field data.

* X/Q units are Sec/cubic meter * D/Q units are inverse square meters

Nearest Resident by Sector, Distance, X/Q and D/Q

Sector	Distance (Miles)	X/Q	D/Q
N	2.2	9.28E-07	5.32E-09
NNE	2.2	5.58E-07	2.90E-09
NE	2.2	3.92E-07	1.42E-09
ENE	2.4	2.58E-07	7.08E-10
E	2.4	3.02E-07	6.62E-10
ESE	2.0	4.7E-07	1.20E-09
SE	1.9	8.28E-07	3.38E-09
SSE	1.5	1.10E-06	6.60E-09
S	1.5	8.50E-07	5.20E-09
SSW	2.1	3.52E-07	1.56E-09
SW	1.1	1.40E-06	6.5E-09
WSW	1.0	1.80E-06	6.50E-09
W	1.6	7.64E-07	2.50E-09
WNW	2.8	4.07E-07	1.18E-09
NW	2.7	6.98E-07	2.24E-09
NNW	2.5	8.4E-07	3.6E-09

Note: The Annual Average X/Q used for dose calculations is 3.30E-06 sec/cubic meter.
The Tritium value X/Q used for dose calculations is 4.36E-06 sec/cubic meter.
The Annual Average D/Q used for dose calculations is 3.34E-08 inverse square meters.

Nearest Garden by Sector, Distance and D/Q

Sector	Distance (Miles)*	D/Q
N	None	None
NNE	None	None
NE	None	None
ENE	None	None
E	None	None
ESE	None	None
SE	None	None
SSE	None	None
S	None	None
SSW	None	None
SW	None	None
WSW	None	None
W	None	None
WNW	None	None
NW	None	None
NNW	None	None

*There are currently no gardens.

Nearest Milk Animal by Sector, Distance and D/Q

Sector	Distance (Miles)*	D/Q
N	None	None
NNE	None	None
NE	None	None
ENE	None	None
E	None	None
ESE	None	None
SE	None	None
SSE	None	None
S	None	None
SSW	None	None
SW	None	None
WSW	None	None
W	None	None
WNW	None	None
NW	None	None
NNW	None	None

*No Milk samples are currently being collected.

Population by Sector and Distance

Sector	0-1	1-2	2-3	3-4	4-5	Total
N	-	-	3	35	117	155
NNE	-	-	13	122	29	164
NE	-	-	122	152	309	583
ENE	-	-	152	5	21	178
E	-	-	109	21	35	165
ESE	-	3	64	120	189	376
SE	-	24	120	160	67	371
SSE	-	80	98	82	2173	2433
S	-	21	112	21	157	311
SSW	-	-	13	5	48	66
SW	-	96	3	72	37	208
WSW	-	311	5	5	-	321
W	-	56	13	21	24	114
WNW	-	-	5	45	109	159
NW	-	-	3	-	-	3
NNW	-	-	3	53	40	96
TOTAL	-	591	838	919	3355	5703

Based on an average of 2.66 residents per house, this average was obtained from North Central Texas Council of Governments for Hood and Somervell Counties and is derived from an average of residents per house of 2.57 and 2.74, respectively.

Environmental Sample Locations Table

Sampling Point	Location	Sample Type*
A1	N-1.45 (Squaw Creek Park)	A
A2	N-9.4 (Granbury)	A
A3	E-3.5 (Children's Home)	A
A4	SSE-4.5 (Glen Rose)	A
A5	S/SSW-1.2	A
A6	SW-12.3 (CONTROL)	A
A7	SW/WSW-0.95	A
A8	NW-1.0	A
R1	N-1.45 (Squaw Creek Park)	R
R2	N-4.4	R
R3	N-6.5	R
R4	N-9.4 (Granbury)	R
R5	NNE-1.1	R
R6	NNE-5.65	R
R7	NE-1.7	R
R8	NE-4.8	R
R9	ENE-2.5	R
R10	ENE-5.0	R
R11	E-0.5	R
R12	E-1.9	R
R13	E-3.5 (Children's Home)	R
R14	E-4.2	R
R15	ESE-1.4	R
R16	ESE-4.7	R
R17	SE-1.3	R
R18	SE-3.85	R

Environmental Sample Locations Table (cont.)

Sampling Point	Location	Sample Type*
R19	SE-4.6	R
R20	SSE-1.3	R
R21	SSE-4.4 (Glen Rose)	R
R22	SSE-4.5 (Glen Rose)	R
R23	S-1.5	R
R24	S-4.2	R
R25	SSW-1.1	R
R26	SSW-4.4 (State Park)	R
R27	SW-0.9	R
R28	SW-4.8 (Girl Scout Camp)	R
R29	SW-12.3 (CONTROL)	R
R30	WSW-1.0	R
R31	WSW-5.35	R
R32	WSW-7.0 (CONTROL)	R
R33	W-1.0	R
R34	W-2.0	R
R35	W-5.5	R
R36	WNW-1.0	R
R37	WNW-5.0	R
R38	WNW-6.7	R
R39	NW-1.0	R
R40	NW-5.7	R
R41	NW-9.9 (Tolar)	R
R42	NNW-1.35	R
R43	NNW-4.6	R

Environmental Sample Locations Table (cont.)

Sampling Point	Location	Sample Type*
SW1	N-1.5 (Squaw Creek Reservoir Marina)	SW
SW2	N-9.9 (Lake Granbury)	SW/DW[1]
SW3	N-19.3 (CONTROL-Brazos River)	SW
SW4	NE-7.4 (Lake Granbury)	SW
SW5	ESE-1.4 (Squaw Creek Reservoir)	SW[2]
SW6	NNW-0.1 (Squaw Creek Reservoir)	SW/DW[3]
GW1	W-1.2 (NOSF Potable Water)	GW
GW2	WSW-0.1 (Plant Potable Water)	GW[3,4]
GW3	SSE-4.6 (Glen Rose)	GW[4]
GW4	N-9.8 (Granbury)	GW[1,4]
GW5	N-1.45 (Squaw Creek Park)	GW[4]
SS1	NNE-1.0 (Squaw Creek Reservoir)	SS
SS2	N-9.9 (Lake Granbury)	SS
SS3	NE-7.4 (Lake Granbury)	SS
SS4	SE-5.3 (Squaw Creek)	SS
F1	ENE-2.0 (Squaw Creek Reservoir)	F
F2	NNE-8.0 (Lake Granbury)	F
FP1	ENE-9.0 (Leonard Bros. Pecan Farm)	FP

Environmental Sample Locations Table (cont.)

Sampling Point	Location	Sample Type*
BL1	N-1.45	BL
BL2	SW-1.0	BL[5]
BL3	SW-13.5 (CONTROL)	BL[5]

*Sample Type: A - Air Sample; R - Direct Radiation; SW - Surface Water; DW - Drinking Water GW - Ground Water; SS - Shoreline Sediments; M - Milk; F - Fish; FP - Food Products; BL - Broadleaf Vegetation

NOTES:

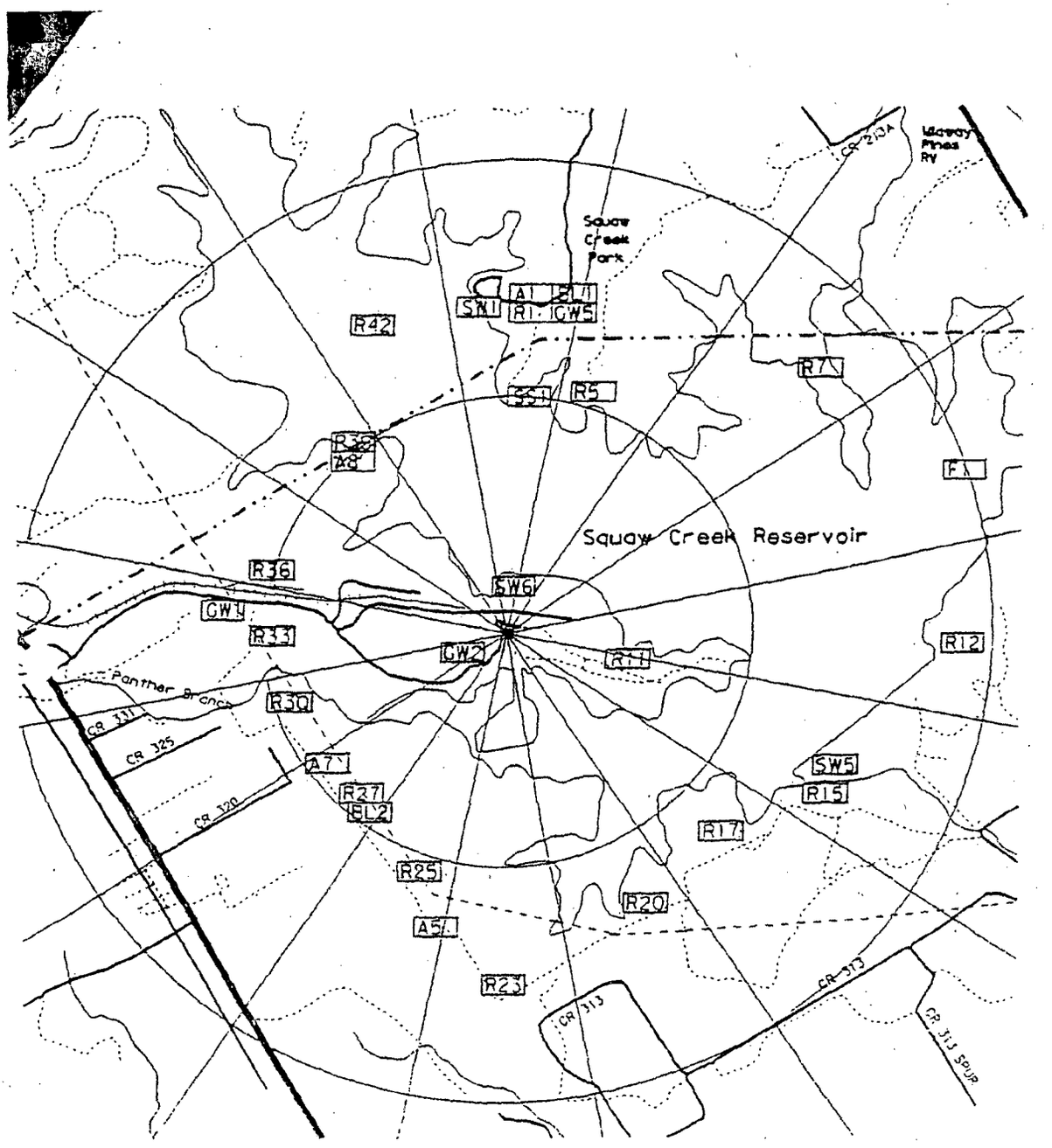
1) The municipal water system for the City of Granbury is supplied by surface water from Lake Granbury (location SW2) and ground water (location GW4). Each of these supplies is sampled. These samples are not required for compliance with Radiological Effluent Control 3/4.12.1, Table 3.12-1, because they are not affected by plant discharges.

2) This sample (location SW6) is representative of discharges from Squaw Creek Reservoir both down Squaw Creek and to Lake Granbury via the return line to Lake Granbury if used.

3) Plant potable water could be supplied by surface water from Squaw Creek Reservoir (location SW6) but is normally supplied by ground water from onsite wells (location GW2). Each of these possible sources of water are sampled.

4) Ground water supplies in the plant site area are not affected by plant liquid effluents as discussed in CPSES FSAR Section 2.4.13 and are therefore not required to be monitored for radioactivity to meet the requirements of the Radiological Effluent Control 3/4.12.1, Table 3.12-1.

5) Broadleaf sampling will be performed at the specified locations if milk samples are unavailable from any location.



Environmental Sample Locations Map - 2 Mile Radius