

Enclosure 1

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

SEQUOYAH NUCLEAR PLANT

2008

2008
SEQUOYAH NUCLEAR PLANT
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

I. REGULATORY LIMITS

A. Gaseous Effluents

1. Dose rates due to radioactivity released in gaseous effluents from the site to areas at and beyond the unrestricted area boundary shall be limited to the following:
 - a. Noble gases:
 - Less than or equal to 500 mrem/year to the total body.
 - Less than or equal to 3000 mrem/year to the skin.
 - b. Iodine-131 (I-131), Iodine-133 (I-133), tritium, and all radionuclides in particulate form with half-lives greater than eight days:
 - Less than or equal to 1500 mrem/year to any organ.
2. Air dose due to noble gases released in gaseous effluents to areas at and beyond the unrestricted area boundary shall be limited to the following:
 - a. Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation during any calendar quarter.
 - b. Less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation during any calendar year.
3. Dose to a member of the public from Iodine-131, Iodine-133, tritium, and radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released to areas at and beyond the unrestricted area boundary shall be limited to the following:
 - a. Less than or equal to 7.5 mrem to any organ during any calendar quarter.
 - b. Less than or equal to 15 mrem to any organ during any calendar year.

B. Liquid Effluents

1. The annual average concentration of radioactivity released in liquid effluents to unrestricted areas shall be limited to the concentrations specified in Title 10 of the Code of Federal Regulations (CFR), Part 20 (Standards for Protection Against Radiation), Appendix B, Table 2, Column 2, for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to 2.0 E-04 microcuries/milliliter ($\mu\text{Ci/ml}$) total activity.

2. The dose or dose commitment to a member of the public from radioactivity in liquid effluents released to unrestricted areas shall be limited to:
 - a. Less than or equal to 1.5 mrem to the total body and less than or equal to 5 mrem to any organ during any calendar quarter.
 - b. Less than or equal to 3 mrem to the total body and less than or equal to 10 mrem to any organ during any calendar year.

II. EFFLUENT CONCENTRATION LIMITS

A. Liquids

- *1. The Effluent Concentration Limits (ECL) for liquids are those listed in 10 CFR 20, Appendix B, Table 2, Column 2. For dissolved and entrained gases, the ECL of $2.0E-04$ $\mu\text{Ci/ml}$ is applied. This ECL is based on the Xenon-135 (Xe-135) concentration in air (submersion dose) converted to an equivalent concentration in water as discussed in the International Commission on Radiological Protection (ICRP), Publication 2.

*These values are used as applicable limits for liquid and gaseous effluents.

B. Gaseous

- *1. The maximum permissible dose rates for gaseous releases are defined in plant Offsite Dose Calculation Manual (ODCM).
 - a. Noble gas dose rate at the unrestricted area boundary:
 - Less than or equal to 500 mrem/year to the total body.
 - Less than or equal to 3000 mrem/year to skin.
 - b. Iodine-131, Iodine-133, tritium, and particulates with half-lives greater than eight days dose rate at the unrestricted area boundary:
 - Less than or equal to 1500 mrem/year to any organ.

*These values are used as applicable limits for liquid and gaseous effluents.

III. AVERAGE ENERGY

Sequoyah's ODCM limits the dose equivalent rates due to the release of noble gases to less than or equal to 500 mrem/year to the total body and less than or equal to 3000 mrem/year to the skin. The use of dose rate is in accordance with NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants". Since the release rate is not used for effluent control, the average energy discussed in Regulatory

Guide 1.21 (used for release rate control) is not included in this report.

IV. MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY

NOTE: Every effort is made to ensure that effluent releases from Sequoyah are conducted such that all ODCM Lower Limit of Detection (LLD) values are met. Whenever an analysis does not identify a radioisotope, an "0.00E-01 Ci" is recorded for the release. This does not necessarily mean that no activity was released for that particular radionuclide, but that the concentration was below the ODCM and analysis LLD. Refer to Tables A and B for estimates of these typical LLD values.

A. Fission and Activation Gases

Airborne effluent gaseous activity is continuously monitored and recorded. Additional grab samples from the shield building, auxiliary building, service building, and condenser vacuum exhausts are taken and analyzed at least monthly to determine the quantity of noble gas activity released for the month based on the average vent flow rates recorded for the sample period. Also, noble gas samples are collected and evaluated for the shield and auxiliary buildings following startup, shutdown, or rated thermal power change exceeding 15 percent within one hour (sampling is only required if the dose equivalent I-131 concentration in the primary coolant or the noble gas activity monitor shows that the containment activity has increased more than a factor of 3).

The quantity of noble gases released through the shield and auxiliary building exhausts due to purging or venting of containment and releases of waste gas decay tanks are also determined.

The total noble gas activity released for the month is then determined by summing of the activity released from each vent for the sampling periods.

B. Iodines and Particulates

Iodine and particulate activity is continuously sampled. Charcoal and particulate samples are taken from the shield and auxiliary building exhausts and analyzed at least weekly to determine the total activity released from the plant based on the average vent flow rates recorded for sampling period.

Also, particulate and charcoal samples are taken from the auxiliary and shield building exhausts once per 24 hours for 2 days following startup, shutdown, or a rated thermal power change exceeding 15 percent within 1 hour. The quantity of iodine and particulate released from each vent during each sampling period is then determined using the average vent flow rates recorded for the sampling period and activity concentration.

The total particulate and iodine activity released for the month is then determined by summing all activity released from the shield and auxiliary building exhausts for the

sampling periods.

C. Liquid Effluents

Batch (Radwaste and during periods of primary to secondary leakage, condensate regenerants to cooling tower blowdown)

Total gamma isotopic activity concentrations are determined on each batch of liquid effluent prior to release. The total activity of a released batch is determined by summing each nuclide's concentration and multiplying by the total volume discharged. The total activity released during a month is then determined by summing the activity content of each batch discharged during the month.

Continuous Releases and Periodic Continuous Releases (Condensate regenerants, turbine building sump, and steam generator blowdown)

Total gamma isotopic activity concentration is determined daily on a composite sample from the condensate system and turbine building sump and weekly for steam generator blowdown. The total activity of the continuous release is determined by summing each nuclide's concentration and multiplying by the total volume discharged. The total activity released during the month is then determined by summing the activity content of each daily and weekly composite for the month.

Monitoring Wells

SQN started conducting an investigation of tritium releases to the groundwater in 2003 due to identification of tritium in one of the on-site monitoring wells. This study involved pressure testing of the radwaste discharge line, installation and sampling of groundwater wells, visual inspection under the Refueling Water Storage Tank (RWST's) and inspection of drain lines. In addition to the one on-site Radiological Environmental Monitoring Program (REMP) groundwater monitoring well, Sequoyah Nuclear Plant also has 18 non-REMP monitoring wells to support monitoring the onsite groundwater plume and for the presence or increase of radioactivity. These wells are sampled periodically for tritium. The highest tritium concentration obtained in 2008 from these non-REMP monitoring wells was 13,000 pCi/L.

Doses from I-131 Water Ingestion Pathway

The radiological environmental monitoring program (REMP) requirements as specified in Table 3.12-1 from NUREG 1301, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors," dated April 1991, requires an I-131 specific analysis for drinking water pathway samples if the annual dose from I-131 is greater than 1 mrem. In order to evaluate the need for implementation of this additional analysis, the drinking water pathway dose from I-131 to the maximum organ and age group was calculated. The results reported here confirm that the drinking water pathway dose from I-131 was only a small fraction of the 1 mrem limit and that the performance of the I-131 specific analysis is not required for SQN REMP drinking water samples.

Quarter	1	2	3	4	Totals
I-131 Ci	1.79E-05	0.00E-01	0.00E-01	0.00E-01	1.79E-05
Infant/Thyroid (mrem)	5.30E-06	0	0	0	5.30E-06
Population/Thyroid (mrem)	1.50E-04	0	0	0	1.50E-04

V. BATCH RELEASES

	Value		Units
	1st Half	2nd Half	
<u>A. Liquid (Radwaste only)</u>			
1. Number of releases	82	51	Each
2. Total time period of releases	12180	13550	Minutes
3. Maximum time period of release	240.00	1807.00	Minutes
4. Average time period of releases	148.54	265.69	Minutes
5. Minimum time period for release	69.00	100.00	Minutes
6. Average dilution stream flow during release periods	16680.5	18023.5	CFS
<u>B. Gaseous (Batches only - containment purges, and waste gas decay tanks)</u>			
1. Number of releases	112	69	Each
2. Total time period of releases	49659.00	24750.00	Minutes
3. Maximum time period for release	3366.00	2310.00	Minutes
4. Average time period for releases	443.38	358.70	Minutes
5. Minimum time period for release	30.00	10.00	Minutes

VI. ABNORMAL RELEASES

	Value		Units
	1st Half	2nd Half	
<u>A. Liquid</u>			
Number of Releases	0	0	
Total Activity Released	N/A	N/A	Ci
<u>B. Gaseous</u>			
Number of Releases	0	1	
Total Activity Released	0.00E-01	0.00E-01	Ci

Gaseous Abnormal Release

Release Point: Auxilliary Building Ventilation Exhaust

Start Date/Time of Release: 09/10/2008 17:29

This evaluation is for the release to the environment that through a hole in the duct work upstream of the radiation monitor 0-RM-90-101. The hole in the duct work was discovered at 17:29 on 10-Sep-2008. The hole was patched and tested under WO# 779534 and PER 152292 was written. The following is the data used to determine the curies and dose impact as a result of the release.

The release occurred over 461 minutes
The Noble Gas sample showed no radioactivity
Tritium concentration was $2.58E-08$ $\mu\text{Ci/cc}$
Tritium released $2.83E-04$ Curies
The weekly filter analysis showed no Iodine or particulate activity.
The impact to 10 CFR 20 Dose rates were as follows:

Total body dose rate 0 mrem/year	Limit is 500 mrem/year
Organ dose rate $2.45E-04$ mrem/year	Limit is 1500 mrem/year
Skin dose rate 0 mrem/year	Limit is 3000 mrem/year

The impact to 10 CFR 50 doses were as follows:

Gamma air dose 0 mrad	Limit is 5 mrad/quarter
Beta air dose 0 mrad	Limit is 10 mrad/quarter
Organ dose 1.97 mrad	Limit is 7.5 mrad/quarter

Liquid Effluents-Summation of All Releases
 During the Period
 Starting: 1-Jan-2008 Ending: 30-Jun-2008

Type of Effluent	Units	Quarter 1	Quarter 2	Estimated Total Error %
A. Fission and & Activation Products				
1. Total Release (Not including Tritium, Gases, and Alpha	Ci	3.04E-02	4.02E-02	18%
2. Average Diluted Concentration During Period	μCi/ml	1.71E-08	2.06E-06	
3. Percent of Applicable Limit	%	*	*	
B. Tritium				
1. Total Release	Ci	3.41E+02	2.47E+02	18%
2. Average Diluted Concentration During Period	μCi/ml	1.92E-04	1.27E-04	
3. Percent of Applicable Limit	%	*	*	
C. Dissolved and Entrained Gases				
1. Total Release	Ci	4.77E-03	4.48E-04	39%
2. Average Diluted Concentration During Period	μCi/ml	2.69E-09	2.30E-10	
3. Percent of Applicable Limit	%	1.34E-03	1.15E-04	
D. Gross Alpha Radioactivity				
1. Total Release	Ci	0.00E-01	0.00E-01	N/A***
E. Total Waste Volume Released (Pre-Dilution)				
	Liters	5.70E+07	6.89E+07	4%
F. Volume of Dilution Water Used				
	Liters	1.72E+09	1.88E+09	4%
G. Radwaste Volume Released				
	Liters	1.38E+06	2.14E+06	

* Applicable Limits are expressed in terms of dose. See Tables 1-4 of the 2008 Radiological Impact Assessment Report.

** Zeroes in this table indicate that no radioactivity was present at detectable levels.

*** N/A - Errors in measurement are not reported for these values since none were identified during the reporting period.

Liquid Effluents-Summation of All Releases
 During the Period
 Starting: 1-Jul-2008 Ending: 31-Dec-2008

Type of Effluent	Units	Quarter 3	Quarter 4	Estimated Total Error %
A. Fission and Activation Products				
1. Total Release (Not including Tritium, Gases, and Alpha	Ci	8.27E-03	2.76E-03	18%
2. Average Diluted Concentration During Period	μCi/ml	4.51E-09	1.60E-09	
3. Percent of Applicable Limit	%	*	*	
B. Tritium				
1. Total Release	Ci	1.55E+02	5.27E+02	18%
2. Average Diluted Concentration During Period	μCi/ml	8.46E-05	3.05E-04	
3. Percent of Applicable Limit	%	*	*	
C. Dissolved and Entrained Gases				
1. Total Release	Ci	3.74E-04	4.85E-03	39%
2. Average Diluted Concentration During Period	μCi/ml	2.04E-10	2.81E-09	
3. Percent of Applicable Limit	%	1.02E-04	1.40E-03	
D. Gross Alpha Radioactivity				
1. Total Release	Ci	0.00E-01	0.00E-01	N/A ^{***}
E. Total Waste Volume Released (Pre-Dilution)				
	Liters	5.32E+07	5.70E+07	4%
F. Volume of Dilution Water Used				
	Liters	1.78E+09	1.67E+09	4%
G. Radwaste Volume Released				
	Liters	1.41E+06	8.10E+05	

* Applicable Limits are expressed in terms of dose. See Tables 1-4 of the 2008 Radiological Impact Assessment Report.

** Zeroes in this table indicate that no radioactivity was present at detectable levels.

*** N/A - Errors in measurement are not reported for these values since none were identified during the reporting period.

Curies Released in Liquid Effluents
 During the period
 Starting: 1-Jan-2008 Ending 31-Mar-2008

	Continuous	Batch	Total
Tritium	1.38E-01	3.41E+02	3.41E+02
FISSION & ACTIVATION PRODUCTS			
Cobalt-57	0.00E+01	1.70E-04	1.70E-04
Cobalt-58	0.00E+01	1.29E-02	1.29E-02
Cobalt-60	0.00E+01	6.43E-03	6.43E-03
Chromium-51	0.00E+01	3.49E-04	3.49E-04
Cesium-134	0.00E+01	2.16E-05	2.16E-05
Cesium-137	0.00E+01	2.86E-04	2.86E-04
Iron-55	0.00E+01	9.40E-03	9.40E-03
Iodine-131	0.00E+01	1.79E-05	1.79E-05
Lanthanum-140	0.00E+01	2.26E-06	2.26E-06
Manganese-54	0.00E+01	1.97E-04	1.97E-04
Niobium-95	0.00E+01	2.14E-04	2.14E-04
Antimony-124	0.00E+01	9.89E-05	9.89E-05
Antimony-125	0.00E+01	2.13E-04	2.13E-04
Zinc-65	0.00E+01	8.27E-06	8.27E-06
Zirconium-95	0.00E+01	1.25E-04	1.25E-04
TOTALS	0.00E+01	3.04E-02	3.04E-02
DISSOLVED AND ENTRAINED GASES			
Xenon-133	0.00E+01	4.69E-03	4.69E-03
Xenon-133m	0.00E+01	1.91E-05	1.91E-05
Xenon-135	0.00E+01	6.17E-05	6.17E-05
TOTALS	0.00E+01	4.77E-03	4.77E-03

*Zeroes in this table indicate that no activity was present at detectable levels.

Curies Released in Liquid Effluents
 During the period
 Starting: 1-Apr-2008 Ending 30-Jun-2008

	Continuous	Batch	Total
Tritium	1.58E-01	2.47E+02	2.47E+02
FISSION & ACTIVATION PRODUCTS			
Silver-110m	0.00E+01	4.17E-04	4.17E-04
Cobalt-57	0.00E+01	6.44E-05	6.44E-05
Cobalt-58	0.00E+01	1.33E-02	1.33E-02
Cobalt-60	0.00E+01	3.58E-03	3.58E-03
Chromium-51	0.00E+01	6.04E-03	6.04E-03
Cesium-134	0.00E+01	3.65E-06	3.65E-06
Cesium-137	0.00E+01	7.46E-05	7.46E-05
Iron-55	0.00E+01	1.44E-02	1.44E-02
Iron-59	0.00E+01	5.16E-04	5.16E-04
Lanthanum-140	0.00E+01	3.01E-06	3.01E-06
Manganese-54	0.00E+01	3.55E-04	3.55E-04
Niobium-95	0.00E+01	2.61E-04	2.61E-04
Antimony-124	0.00E+01	7.21E-05	7.21E-05
Antimony-125	0.00E+01	1.02E-03	1.02E-03
Zirconium-95	0.00E+01	1.23E-04	1.23E-04
TOTALS	0.00E+01	4.02E-02	4.02E-02
DISSOLVED AND ENTRAINED GASES			
Xenon-133	0.00E+01	4.48E-04	4.48E-04
TOTALS	0.00E+01	4.48E-04	4.48E-04

*Zeroes in this table indicate that no activity was present at detectable levels.

Curies Released in Liquid Effluents
 During the period
 Starting: 1-Jul-2008 Ending 30-Sep-2008

	Continuous	Batch	Total
Tritium	1.99E+01	1.55E+02	1.55E+02
FISSION & ACTIVATION PRODUCTS			
Silver-110m	0.00E+01	3.57E-05	3.57E-05
Barium-140	0.00E+01	5.10E-06	5.10E-06
Cobalt-57	0.00E+01	1.09E-05	1.09E-05
Cobalt-58	0.00E+01	3.97E-03	3.97E-03
Cobalt-60	0.00E+01	8.83E-04	8.83E-04
Chromium-51	0.00E+01	1.92E-04	1.92E-04
Iron-55	0.00E+01	2.18E-03	2.18E-03
Iron-59	0.00E+01	4.63E-05	4.63E-05
Manganese-54	0.00E+01	1.23E-04	1.23E-04
Niobium-95	0.00E+01	3.79E-05	3.79E-05
Antimony-124	0.00E+01	2.52E-05	2.52E-05
Antimony-125	0.00E+01	7.57E-04	7.57E-04
TOTALS	0.00E+01	8.27E-03	8.27E-03
DISSOLVED AND ENTRAINED GASES			
Xenon-133	0.00E+01	3.74E-04	3.74E-04
TOTALS	0.00E+01	3.74E-04	3.74E-04

*Zeroes in this table indicate that no activity was present at detectable levels.

Curies Released in Liquid Effluents
 During the period
 Starting: 1-Oct-2008 Ending 31-Dec-2008

	Continuous	Batch	Total
Tritium	1.87E-01	1.54E+02	5.27E+02
FISSION & ACTIVATION PRODUCTS			
Cobalt-57	0.00E+01	9.55E-06	9.55E-06
Cobalt-58	0.00E+01	1.36E-03	1.36E-03
Cobalt-60	0.00E+01	6.07E-04	6.07E-04
Cesium-137	0.00E+01	7.46E-05	7.46E-05
Iron-55	0.00E+01	1.02E-06	1.02E-06
Iron-59	0.00E+01	4.89E-04	4.89E-04
Manganese-54	0.00E+01	4.29E-06	4.29E-06
Antimony-125	0.00E+01	2.89E-04	2.89E-04
Zinc-69m	0.00E+01	1.08E-06	1.08E-06
TOTALS	0.00E+01	2.76E-03	2.76E-03
DISSOLVED AND ENTRAINED GASES			
Xenon-133	0.00E+01	4.48E-04	4.48E-04
Xenon-133m	0.00E+01	2.20E-05	2.20E-05
Xenon-135	0.00E+01	2.73E-06	2.73E-06
TOTALS	0.00E+01	4.85E-03	4.85E-03

*Zeroes in this table indicate that no activity was present at detectable levels.

TABLE A
LIQUID "TYPICAL LLD" EVALUATION⁽¹⁾

<u>Nuclide</u>	<u>ODCM LLD</u>	$\Delta t^{(2)}$		
		<u>1 hr</u>	<u>8 hr</u>	<u>32 hr</u>
Manganese-54	5.0E-07	3.36E-08	3.36E-08	3.37E-08
Cobalt-58	5.0E-07	2.53E-08	2.54E-08	2.56E-08
Iron-59	5.0E-07	5.26E-08	5.29E-08	5.37E-08
Cobalt-60	5.0E-07	4.63E-08	4.63E-08	4.64E-08
Zinc-65	5.0E-07	2.95E-08	2.95E-08	2.96E-08
Molybdenum-99	5.0E-07	1.55E-07	1.67E-07	2.15E-07
Cesium-134	5.0E-07	1.91E-08	1.91E-08	1.92E-08
Cesium-137	5.0E-07	3.87E-08	3.87E-08	3.87E-08
Cerium-141	5.0E-07	2.80E-08	2.81E-08	2.87E-08
Cerium-144	5.0E-06	1.11E-07	1.12E-07	1.12E-07
Iodine-131	1.0E-06	2.28E-08	2.34E-08	2.55E-08
Krypton-87	1.0E-05	1.16E-07	5.25E-07	(3)
Krypton-88	1.0E-05	9.95E-08	5.49E-07	(3)
Xenon-133	1.0E-05	4.19E-08	4.36E-08	4.98E-08
Xenon-133m	1.0E-05	1.42E-07	1.55E-07	2.13E-07
Xenon-135	1.0E-05	2.06E-08	3.50E-08	2.17E-07
Xenon-138	1.0E-05	8.37E-06	(3)	(3)

<u>Nuclide</u>	<u>ODCM LLD</u>	<u>Typical LLD</u>
Tritium	1.0E-05	1.2E-06
Gross Alpha	1.0E-07	2.0E-08
Strontium-89/90	5.0E-08	3.8E-08/1.4E-08
Iron-55	1.0E-06	1.3E-08

NOTES: (1) LLD values are in $\mu\text{Ci/ml}$.

(2) Δt is the time between sample collection and counting time.

(3) T $\frac{1}{2}$ too short.

Gaseous Effluents - Summation of All Releases
 During the Period
 Starting: 1-Jan-2008 Ending: 30-Jun-2008

Type of Effluent	Units	Quarter 1	Quarter 2	Estimated Total Error %
A. Fission and & Activation Products				
1. Total Release	Ci	4.80E+00	3.09E+00	11%
2. Average Release Rate For Period	μCi/sec	6.11E-01	3.93E-01	
3. Percent of Applicable Limit	%	*	*	
B. Radioiodines				
1. Total Iodine-131	Ci	0.00E+01	0.00E+01	N/A***
2. Average Release Rate For Period	μCi/sec	0.00E+01	0.00E+01	
3. Percent of Applicable Limit	%	*	*	
C. Particulates				
1. Particulates (Half-Lives > 8 Days)	Ci	0.00E+01	0.00E+01	N/A***
2. Average Release Rate For Period	μCi/sec	0.00E+01	0.00E+01	
3. Percent of Applicable Limit	%	*	*	
4. Gross Alpha Radioactivity	Ci	0.00E+01	0.00E+01	
D. Tritium				
1. Total Release	Ci	1.52E+01	1.46E+01	15%
2. Average Release Rate For Period	μCi/sec	1.93E+00	1.86E+00	
3. Percent of Applicable Limit	%	*	*	

* Applicable Limits are expressed in terms of dose. See Tables 5-8 of the 2008 Radiological Impact Assessment Report.

** Zeroes in this table indicate that no radioactivity was present at detectable levels.

*** N/A - Errors in measurement are not reported for these values since none were identified during the reporting period.

Gaseous Effluents - Summation of All Releases
 During the Period
 Starting: 1-Jun-2008 Ending: 31-Dec-2008

Type of Effluent	Units	Quarter 3	Quarter 4	Estimated Total Error %
A. Fission and & Activation Products				
1. Total Release	Ci	7.87E-01	7.54E-01	11%
2. Average Release Rate For Period	μCi/sec	9.90E-02	9.49E-02	
3. Percent of Applicable Limit	%	*	*	
B. Radioiodines				
1. Total Iodine-131	Ci	0.00E+01	0.00E+01	N/A***
2. Average Release Rate For Period	μCi/sec	0.00E+01	0.00E+01	
3. Percent of Applicable Limit	%	*	*	
C. Particulates				
1. Particulates (Half-Lives > 8 Days)	Ci	0.00E+01	0.00E+01	N/A***
2. Average Release Rate For Period	μCi/sec	0.00E+01	0.00E+01	
3. Percent of Applicable Limit	%	*	*	
4. Gross Alpha Radioactiviy	Ci	0.00E+01	0.00E+01	
D. Tritium				
1. Total Release	Ci	1.96E+01	1.03E+01	15%
2. Average Release Rate For Period	μCi/sec	2.47E+00	1.30E+00	
3. Percent of Applicable Limit	%	*	*	

* Applicable Limits are expressed in terms of dose. See Tables 5-8 of the 2008 Radiological Impact Assessment Report.

** Zeroes in this table indicate that no radioactivity was present at detectable levels.

*** N/A - Errors in measurement are not reported for these values since none were identified during the reporting period.

Curies released Gaseous Ground Level Releases
 During the period
 Starting: 1-Jan-2008 Ending: 31-Mar-2008

	CONTINUOUS	BATCH	TOTAL
<u>FISSION GASES</u>			
Krypton-87	0.00E+01	1.17E-03	1.17E-03
Xenon-131m	0.00E+01	3.62E-02	3.62E-02
Xenon-133	0.00E+01	3.49E-01	3.49E-01
Xenon-135	0.00E+01	4.82E-03	4.82E-03
Argon-41	0.00E+01	4.41E+00	4.41E+00
TOTALS	0.00E+01	4.80E+00	4.80E+00
<u>IODINES</u>			
Iodine-133	0.00E+01	0.00E+01	0.00E+01
Iodine-131	0.00E+01	0.00E+01	0.00E+01
TOTALS	0.00E+01	0.00E+01	0.00E+01
<u>PARTICULATES</u>			
Cobalt-58	0.00E+01	0.00E+01	0.00E+01
Cobalt-60	0.00E+01	0.00E+01	0.00E+01
TOTALS	0.00E+01	0.00E+01	0.00E+01
<u>TRITIUM</u>			
Tritium	1.38E+01	1.39E+00	1.52E+01

*Zereos in this table indicate that no radioactivity was present at detectable levels.

Curies released Gaseous Ground Level Releases
 During the period
 Starting: 1-Apr-2008 Ending: 30-Jun-2008

	CONTINUOUS	BATCH	TOTAL
<u>FISSION GASES</u>			
Krypton-85	0.00E+01	3.69E-01	3.69E-01
Xenon-131m	0.00E+01	7.88E-03	7.88E-03
Xenon-133	0.00E+01	8.97E-02	8.97E-02
Xenon-135	0.00E+01	4.73E-03	4.73E-03
Argon-41	0.00E+01	2.62E+00	2.62E+00
TOTALS	0.00E+01	3.09E+00	3.09E+00
<u>IODINES</u>			
Iodine-133	0.00E+01	0.00E+01	0.00E+01
Iodine-131	0.00E+01	0.00E+01	0.00E+01
TOTALS	0.00E+01	0.00E+01	0.00E+01
<u>PARTICULATES</u>			
Cobalt-58	0.00E+01	0.00E+01	0.00E+01
Cobalt-60	0.00E+01	0.00E+01	0.00E+01
TOTALS	0.00E+01	0.00E+01	0.00E+01
<u>TRITIUM</u>			
Tritium	1.40E+01	6.25E-01	1.46E+01

*Zereos in this table indicate that no radioactivity was present at detectable levels.

Curies released Gaseous Ground Level Releases
 During the period
 Starting: 1-July-2008 Ending: 30-Sep-2008

	CONTINUOUS	BATCH	TOTAL
<u>FISSION GASES</u>			
Krypton-87	0.00E+01	2.00E-04	2.00E-04
Xenon-133	0.00E+01	2.07E-01	2.07E-01
Xenon-135	0.00E+01	1.42E-02	1.42E-02
Argon-41	0.00E+01	5.66E-01	5.66E-01
TOTALS	0.00E+01	7.87E-01	7.87E-01
<u>IODINES</u>			
Iodine-133	0.00E+01	0.00E+01	0.00E+01
Iodine-131	0.00E+01	0.00E+01	0.00E+01
TOTALS	0.00E+01	0.00E+01	0.00E+01
<u>PARTICULATES</u>			
Cobalt-58	0.00E+01	0.00E+01	0.00E+01
Cobalt-60	0.00E+01	0.00E+01	0.00E+01
TOTALS	0.00E+01	0.00E+01	0.00E+01
<u>TRITIUM</u>			
Tritium	1.93E+01	3.40E-01	1.96E+01

*Zereos in this table indicate that no radioactivity was present at detectable levels.

Curies released Gaseous Ground Level Releases
 During the period
 Starting: 1-Oct-2008 Ending: 31-Dec-2008

	CONTINUOUS	BATCH	TOTAL
<u>FISSION GASES</u>			
Xenon-131m	0.00E+01	5.11E-04	5.11E-04
Krypton-85m	0.00E+01	4.24E-05	4.24E-05
Xenon-133	0.00E+01	2.74E-01	2.74E-01
Xenon-135	0.00E+01	3.48E-02	3.48E-02
Argon-41	0.00E+01	4.45E-01	4.45E-01
TOTALS	0.00E+01	7.54E-01	7.54E-01
<u>IODINES</u>			
Iodine-133	0.00E+01	0.00E+01	0.00E+01
Iodine-131	0.00E+01	0.00E+01	0.00E+01
TOTALS	0.00E+01	0.00E+01	0.00E+01
<u>PARTICULATES</u>			
Cobalt-58	0.00E+01	0.00E+01	0.00E+01
Cobalt-60	0.00E+01	0.00E+01	0.00E+01
TOTALS	0.00E+01	0.00E+01	0.00E+01
<u>TRITIUM</u>			
Tritium	8.48E+00	1.83E+00	1.03E+01

*Zereos in this table indicate that no radioactivity was present at detectable levels.

TABLE B
GASEOUS "TYPICAL" LLD EVALUATION⁽¹⁾

Noble Gas

<u>Nuclide</u>	<u>ODCM LLD</u>	$\Delta t^{(2)}$	
		<u>1 hr</u>	<u>1.5 hr</u>
Krypton-87	1.0E-04	2.08E-06	2.73E-06
Krypton-88	1.0E-04	1.61E-06	1.81E-06
Xenon-133	1.0E-04	6.61E-07	6.63E-07
Xenon-133m	1.0E-04	2.34E-06	2.35E-06
Xenon-135	1.0E-04	3.43E-07	3.56E-07
Xenon-138	1.0E-04	1.40E-04	6.10E-04

Particulate Sample⁽³⁾

		$\Delta t^{(2)}$		
		<u>1 hr</u>	<u>24 hr</u>	<u>7.0 day</u>
Manganese-54	1.0E-10	7.47E-12	3.12E-13	4.48E-14
Cobalt-58	1.0E-10	5.62E-12	2.35E-13	3.46E-14
Iron-59	1.0E-10	1.20E-11	5.02E-13	7.49E-14
Cobalt-60	1.0E-10	1.07E-11	4.46E-13	6.38E-14
Zinc-65	1.0E-10	6.71E-12	2.80E-13	4.03E-14
Molybdenum-99	1.0E-10	3.43E-11	1.61E-12	4.70E-13
Cesium-134	1.0E-10	4.25E-12	1.77E-13	2.54E-14
Cesium-137	1.0E-10	8.48E-12	3.54E-13	5.05E-14
Cerium-141	1.0E-10	5.10E-12	2.15E-13	3.26E-14
Cerium-144	1.0E-10	2.01E-11	8.33E-13	1.20E-13
Iodine-131	1.0E-10	4.76E-12	2.07E-13	3.77E-14

Charcoal Sample

Iodine-131	1.0E-11	7.25E-12	3.15E-13	5.74E-14
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(1) LLD values are in $\mu\text{Ci/ml}$.

(2) Δt is the time between sample collection and counting time.

(3) LLD based on sample time + 30 min. sample to analysis.

TABLE B
GASEOUS "TYPICAL" LLD EVALUATION⁽¹⁾

<u>Nuclide</u>	<u>ODCM LLD</u>	<u>Typical LLD</u>
Tritium	1.0E-06	1.0E-11
Gross Alpha	1.0E-11	1.5E-14
Strontium-89	1.0E-11	1.0E-14
Strontium-90	1.0E-11	1.0E-15

NOTE: (1) LLD values are in $\mu\text{Ci/cc}$.

SOLID WASTE (RADIOACTIVE SHIPMENTS)

Solid Waste Shipped Offsite for Burial or Disposal (not Irradiated Fuel)

<u>1. Type of Waste</u>	<u>Unit</u>	<u>12 Month Period</u>	<u>Est. Tot. Error %</u>
a. Spent Resins, Filter Sludges, Evaporator Bottoms, etc.	m ³ Ci	8.98E+00 3.97E+02	+5.00E-02 +1.00E+00
b. Dry Active Waste, Compressible Waste Contaminated Equipment, etc.	m ³ Ci	1.21E+02 1.08E+00	+1.00E+00 +5.00E-02
c. Irradiated Components, Control Rods, etc.	m ³ Ci	None None	N/A N/A
d. Other: Mechanical Filters	m ³ Ci	3.41E+00 3.01E+01	+1.00E-02 +5.00E-01

2. Estimate of Major Nuclide Composition (by type of waste)

a. Spent resins, filter sludges, evaporator bottoms, etc. (nuclides determined by measurement)

	<u>Curies</u>	<u>Percent</u>
1. Hydrogen-3	3.10E-02	0.01
2. Carbon-14	5.37E-02	0.01
3. Beryllium-7	2.21E+00	0.56
4. Chromium-51	5.76E-02	0.01
5. Manganese-54	1.05E+01	2.65
6. Iron-55	4.09E+01	10.30
7. Cobalt-57	2.38E+00	0.60
8. Cobalt-58	2.48E+01	6.25
9. Iron-59	6.47E-03	0.00
10. Nickel-59	6.96E-01	0.18
11. Cobalt-60	9.81E+01	24.70
12. Nickel-63	1.74E+02	43.81
13. Zinc-65	1.65E+00	0.41
14. Strontium-89	1.13E-01	0.03
15. Strontium-90	1.50E-01	0.04
16. Zirconium-95	5.04E-02	0.01
17. Niobium-95	7.61E-02	0.02
18. Technetium-99	1.53E-03	0.00
19. Ruthenium-106	2.07E-02	0.01
20. Silver-110m	7.46E-03	0.00
21. Antimony-124	4.23E-03	0.00
22. Antimony-125	7.02E-01	0.18
23. Cesium-134	1.36E+01	3.42
24. Cesium-137	2.33E+01	5.87
25. Cerium-144	6.54E-01	0.16
26. Plutonium-238	5.42E-04	0.00
27. Plutonium-239/240	5.24E-04	0.00
28. Plutonium-241	3.07E+00	0.77
29. Americium-241	4.56E-04	0.00
30. Curium-242	1.77E-04	0.00
31. Curium-243/244	1.16E-03	0.00

SOLID WASTE (RADIOACTIVE SHIPMENTS)

2. Estimate of Major Nuclide Composition (by type of waste) (Cont.)

b. Dry active waste, compressible waste, contaminated equipment, etc. (nuclides determined by estimate)

	<u>Curies</u>	<u>Percent</u>
1. Hydrogen-3	1.60E-02	1.47
2. Carbon-14	2.70E-05	0.00
3. Chromium-51	8.24E-02	7.60
4. Manganese-54	2.61E-02	2.40
5. Iron-55	1.63E-01	15.03
6. Cobalt-57	1.59E-03	0.15
7. Cobalt-58	4.23E-01	38.98
8. Iron-59	1.08E-02	0.99
9. Cobalt-60	1.51E-01	13.91
10. Nickel-63	8.91E-02	8.22
11. Strontium-89	4.03E-03	0.37
12. Strontium-90	6.50E-05	0.01
13. Zirconium-95	2.67E-02	2.46
14. Niobium-95	8.45E-02	7.80
15. Antimony-125	9.73E-05	0.01
16. Cesium-137	1.86E-03	0.17
17. Cerium-144	4.48E-03	0.41
18. Plutonium-238	6.38E-06	0.00
19. Plutonium-239/240	6.78E-06	0.00
20. Plutonium-241	5.83E-05	0.01
21. Americium-241	7.55E-06	0.00
22. Curium-243/244	8.70E-06	0.00

c. Irradiated Components
None

Curies

Percent

N/A N/A

d. Other: Mechanical Filters

		<u>Curies</u>	<u>Percent</u>
1.	Hydrogen-3	3.93E-04	0.00
2.	Carbon-14	4.27E-04	0.00
3.	Chromium-51	2.07E-01	0.69
4.	Manganese-54	1.43E+00	4.74
5.	Iron-55	1.54E+01	51.02
6.	Cobalt-57	8.00E-02	0.27
7.	Cobalt-58	1.82E+00	6.03
8.	Iron-59	9.22E-03	0.03
9.	Nickel-59	2.78E-02	0.09
10.	Cobalt-60	7.90E+00	26.17
11.	Nickel-63	2.34E+00	7.75
12.	Zinc-65	1.13E-01	0.37
13.	Strontium-89	5.98E-04	0.00
14.	Strontium-90	1.41E-03	0.00
15.	Zirconium-95	2.13E-01	0.71
16.	Niobium-95	3.14E-01	1.04
17.	Technetium-99	6.32E-02	0.21
18.	Ruthenium-103	4.22E-03	0.01
19.	Ruthenium-106	8.95E-02	0.30
20.	Antimony-124	2.95E-03	0.01
21.	Antimony-125	6.22E-02	0.21
22.	Cesium-137	7.57E-03	0.03
23.	Cerium-144	7.98E-02	0.26
24.	Plutonium-238	9.04E-05	0.00
25.	Plutonium-239/240	1.46E-04	0.00
26.	Plutonium-241	1.52E-02	0.05
27.	Americium-241	4.57E-05	0.00
28.	Curium-242	8.16E-05	0.00
29.	Curium-243/244	1.80E-04	0.00

SOLID WASTE (RADIOACTIVE SHIPMENTS)

3. Solid Waste Disposition

a. Spent resins, filter sludges, evaporator bottoms, etc.

Number of Shipments	Type Quantity	Mode of Transportation	Destination
1	A-LSA II	Motor Freight	Duratek Processing Facility Barnwell, SC
2	Type B	Motor Freight	Chem-Nuclear Barnwell, SC

b. Dry active waste, compressible waste, contaminated equipment, etc.

Number of Shipments	Type Quantity	Mode of Transportation	Destination
8	A-LSA II	Motor Freight	Duratek Processing Facility Oak Ridge, TN.

c. Irradiated components, control rods, etc.

Number of Shipments	Type Quantity	Mode of Transportation	Destination
None	N/A	N/A	N/A

d. Other: Mechanical Filters

Number of Shipments	Type Quantity	Mode of Transportation	Destination
1	A-LSA II	Motor Freight	Chem-Nuclear Barnwell, SC

4. Irradiated Fuel Shipments (Disposition)

Number of Shipments	Type Quantity	Mode of Transportation	Destination
None	N/A	N/A	N/A

5. Solidification of Waste

Was solidification performed? No

If yes, solidification media:

Independent Spent Fuel Storage Installation

SN implemented use of an independent spent fuel storage installation (ISFSI) on July 13, 2004. The ISFSI is located on site, within the protected area and is designed to hold 90 spent fuel canisters. The ISFSI is considered part of plant operations for the purposes of the radiological environmental monitoring program.

SN ISFSI TS 5.4a states "The HI-Storm 100 Cask system does not create any radioactive material or have any radioactive waste treatment systems. Therefore, specific operating procedures for the control of radioactive effluents are not required. Specification 3.1.1, Multi-Purpose Canister (MPC) provides assurances that there are no radioactive effluents from spent fuel storage canister."

The Environmental Protection Agency limits for the total dose to the public in the vicinity of a nuclear power plant, established in the Environmental Dose Standard of 40 CFR 190, are as follows:

Total Body	=25 mrem/year
Thyroid	=75 mrem/year
Any other organ	=25 mrem/year

The SN ISFSI is considered part of the SN site and part of plant operations and any radioactive release is included in this report as total site releases. These releases are within 40 CFR 190 limits and 10 CFR 72.104 limits.

ENCLOSURE 2

RADIOLOGICAL IMPACT ASSESSMENT REPORT

SEQUOYAH NUCLEAR PLANT

JANUARY - DECEMBER 2008

2008
SEQUOYAH NUCLEAR PLANT
RADIOLOGICAL IMPACT ASSESSMENT REPORT

INTRODUCTION

Potential doses to maximum individuals and the population around Sequoyah Nuclear Plant (SQN) are calculated for each quarter as required in Section 5.2 of the Offsite Dose Calculation Manual (ODCM). Measured plant releases for the reporting period are used to estimate these doses. Dispersion of radioactive effluents in the environment is estimated using meteorological data and riverflow data measured during the period. In this report, the doses resulting from releases are described and compared to limits established for SQN.

DOSE LIMITS

The ODCM specifies limits for the release of radioactive effluents, as well as limits for doses to the general public from the release of radioactive effluents. These limits are set well below the Technical Specification limits which govern the concentrations of radioactivity and doses permissible in unrestricted areas. This ensures that radioactive effluent releases are "As Low As Reasonably Achievable."

The limits for doses in unrestricted areas from airborne noble gases releases are:

Less than or equal to 5 mrad per quarter and
10 mrad per year (per reactor unit) for gamma radiation,
- and -
Less than or equal to 10 mrad per quarter and
20 mrad per year (per reactor unit) for beta radiation.

The limit for the dose to a member of the general public in an unrestricted area from iodines and particulates released in airborne effluents is:

Less than or equal to 7.5 mrem per quarter and
15 mrem per year (per reactor unit) to any organ.

The limits for doses to a member of the general public from radioactive material in liquid effluents released to unrestricted areas are:

Less than or equal to 1.5 mrem per quarter and
3 mrem per year (per reactor unit) to the total body,
- and -
Less than or equal to 5 mrem per quarter and
10 mrem per year (per reactor unit) to any organ

The Environmental Protection Agency limits for total dose to the public in the vicinity of a nuclear power plant, established in the Environmental Dose Standard of 40 CFR 190 are:

Less than or equal to 25 mrem per year to the total body,
Less than or equal to 75 mrem per year to the thyroid,
- and -
Less than or equal to 25 mrem per year to any other organ.

DOSE CALCULATIONS

Estimated doses to the public are determined using computer models: Gaseous Effluent Licensing Code (GELC), and the Quarterly Water Dose Assessment Code (QWATA). These models are based on guidance provided by the NRC (in Regulatory Guides 1.109, 1.111 and 1.113) for determining the potential dose to individuals and populations living in the vicinity of the plant. The area around the plant is analyzed to determine the pathways through which the public may receive a dose. The doses calculated are a representation of the dose to a "maximum exposed individual." Some of the factors used in these calculations (such as ingestion rates) are maximum values. Many of these factors are obtained from NUREG/CR-1004. The values chosen will tend to overestimate the dose to this "maximum" person. The expected dose to actual individuals is lower. The calculated doses are presented in Tables 1 through 9.

DOSES FROM AIRBORNE EFFLUENTS

For airborne effluents, the public can be exposed to radiation from several sources: direct radiation from the radioactivity in the air, direct radiation from radioactivity deposited on the ground, inhalation of airborne radioactivity, ingestion of vegetation which contains radioactivity deposited from the atmosphere, and ingestion of milk and beef which contains radioactivity deposited from the atmosphere onto vegetation and subsequently eaten by milk and beef animals.

Airborne Discharge Points

Releases from SQN are considered ground-level releases. The ground-level Joint Frequency Distribution (JFD) is derived from windspeeds and directions measured 10 meters above ground and from the vertical temperature difference between 10 and 46 meters, and are presented for each quarter in Attachment 1.0.

Meteorological Data

Meteorological variables at SQN are measured continuously. Measurements collected include wind speed, wind direction, and temperature at heights of 10, 46, and 91 meters above the ground. Quarterly joint frequency distributions (JFDs) are calculated for each release point using the appropriate levels of meteorological data. A JFD gives the percentage of the time in a quarter that the wind is blowing out of a particular upwind compass sector in a particular range of wind speeds for a given stability Class A through G. The wind speeds are divided into nine wind speed ranges. Calms are distributed by direction in proportion to the distribution of noncalm wind directions less than 0.7 m/s (1.5 mph). Stability classes are determined from the vertical temperature difference between two measurement levels.

External Exposure Dose

Dose estimates for maximum external air dose (gamma-air and beta-air doses) are made for points at and beyond the unrestricted area boundary as described in the SQN ODCM. The highest of these doses is then selected.

Submersion Dose

External doses to the skin and total body, due to submersion in a cloud of noble gases, are estimated for the nearest residence in each sector. The residence with the highest dose is then selected from all sectors.

Organ Dose

Doses to organs due to releases of airborne effluents are estimated for the inhalation, ground contamination, and ingestion pathways. The ingestion pathway is further divided into four possible contributing pathways: ingestion of cow/goat milk, ingestion of beef, and ingestion of vegetables. Doses from applicable pathways are calculated for each real receptor location identified in the most recent land use survey. To determine the maximum organ dose, the doses from the pathways are summed for each receptor. For the ingestion dose, however, only those pathways that exist for each receptor are considered in the sum, i.e., milk ingestion doses are included only for locations where milk is consumed without commercial preparation and vegetable ingestion is included only for those locations where a garden is identified. To conservatively account for beef ingestion, a beef ingestion dose equal to that for the highest unrestricted area boundary location is added to each identified receptor. For ground contamination, the dose added to the organ dose being calculated is the total body dose calculated for that location, i.e., it is assumed that the dose to an individual organ is equal to the total body dose.

Doses from airborne effluents are presented in Tables 1-4.

DOSES FROM LIQUID EFFLUENTS

For liquid effluents, the public can be exposed to radiation from three sources: the ingestion of water from the Tennessee River, the ingestion of fish caught in the Tennessee River, and direct exposure from radioactive material deposited on the river shoreline sediment (recreation).

The concentrations of radioactivity in the Tennessee River are estimated by a computer model which uses measured hydraulic data downstream of SQN. Parameters used to determine the doses are based on guidance given by the NRC (in Regulatory Guides 1.109) for maximum ingestion rates, exposure times, etc. Wherever possible, parameters used in the dose calculation are site specific use factors determined by TVA. The models that are used to estimate doses, as well as the parameters input to the models, are described in detail in the SQN ODCM.

Liquid Release Points and River Data

Radioactivity concentrations in the Tennessee River are calculated assuming that releases in liquid effluents are continuous. Routine liquid releases from SQN, located at Tennessee River Mile 484, are made through diffusers which extend into the Tennessee River. It is assumed that releases to the river through these diffusers will initially be entrained in one-fifth of the water which flows past the plant. The QWATA code makes the assumption that this mixing condition holds true until the water is completely mixed at the first downstream dam, at Tennessee River Mile 471.

Doses are calculated for locations within a 50-mile radius downstream of the plant site. The maximum potential recreation dose is calculated for a location immediately downstream from the plant outfall. The maximum individual dose from ingestion of fish is assumed to be that calculated for the consumption of fish caught anywhere between the plant and the first downstream dam (Chickamauga Dam). The maximum individual dose from drinking water is assumed to be that calculated at the nearest downstream public water supply (East Side Utilities). This could be interpreted as indicating that the maximum individual, as assumed for liquid releases from Sequoyah, is an individual who obtains all of his drinking water at East Side Utilities, consumes fish caught from the Tennessee River between SQN and Chickamauga Dam, and spends 500 hours per year on the shoreline just below the outfall from Sequoyah. Dose estimates for the maximum individual due to liquid effluents for each quarter in the period are presented in Tables 5-8, along with the average river flows past the plant site for the periods.

Population doses are calculated assuming that each individual consumes milk, vegetables, and meat produced within the sector annulus in which he resides. Doses from external pathways and inhalation are based on the 50-mile human population distribution.

POPULATION DOSES

Population doses for highest exposed organ due to airborne effluents are calculated for an estimated 1,060,000 persons living within a 50-mile radius of the plant site. Doses from external pathways and inhalation are based on the 50-mile human population distribution.

Ingestion population doses for total body and the maximum exposed organ due to liquid effluents are calculated for the entire downstream Tennessee River population. Water ingestion population doses are calculated using actual population figures for downstream public water supplies. Fish ingestion population doses are calculated assuming that all sport fish caught in the Tennessee River are consumed by the Tennessee River population. Recreation population doses are calculated using actual recreational data on the number of shoreline visits at downstream locations.

Population dose estimates for airborne and liquid effluents are presented in Tables 1-4 and Tables 5-8.

DIRECT RADIATION

External gamma radiation levels were measured by thermoluminescent dosimeters (TLDs) deployed around SQN as part of the offsite Environmental Radiological Monitoring Program. The quarterly gamma radiation levels determined from these TLDs during this reporting period averaged approximately 9.75 mR/quarter at onsite (at or near the site boundary) stations and approximately 8.5 mR/quarter at offsite stations, or approximately 1.25 mR/quarter higher onsite than at offsite stations. This difference is consistent with levels measured for preoperation and construction phases of the TVA nuclear plant site where the average radiation levels onsite were generally 2-6 mR/quarter higher than the levels offsite. This may be attributable to natural variations in environmental radiation levels, earth moving activities onsite, the mass of concrete employed in the construction of the plants, or other undetermined influences. Fluctuations in natural background dose rates and in TLD readings tend to mask any small increments which

may be due to plant operations. Thus, there was no identifiable increase in dose rate levels attributable to direct radiation from plant equipment and/or gaseous effluents.

DOSE TO A MEMBER OF THE PUBLIC INSIDE THE UNRESTRICTED AREA BOUNDARY

As stated in the SQN Offsite Dose Calculation Manual, an evaluation of the dose to a member of the public inside the unrestricted area boundary is performed for a hypothetical TVA employee who works just outside the restricted area fence for an entire work year (2000/8760 hours). Results from onsite TLD measurements for the calendar year in question indicate that the highest onsite TLD reading was 73 mrem. Using this value, and subtracting an annual background value of 39 mrem/year, and multiplying by the ratio of the occupancy times, the external dose was 7.76 mrem. The doses due to radioactive effluents released to the atmosphere calculated in this report would not add a significant amount to this measured dose. This dose is well below the 10 CFR 20 annual limit of 100 mrem.

TOTAL DOSE

To determine compliance with 40 CFR 190, annual total dose contributions to the maximum individual from SQN radioactive effluents and other nearby uranium fuel cycle sources are considered.

The annual dose to any organ other than thyroid for the maximum individual is conservatively estimated by summing the following doses: the total body air submersion dose for each quarter, the critical organ dose (for any organ other than the thyroid) from airborne effluents for each quarter from ground contamination, inhalation and ingestion, the total body dose from liquid effluents for each quarter, the maximum organ dose (for any organ other than the thyroid) from liquid effluents for each quarter, and any identifiable increase in direct radiation dose levels as measured by the environmental monitoring program. This dose is compared to the 40 CFR 190 limit for total body or any organ dose (other than thyroid) to determine compliance.

The annual thyroid dose to the maximum individual is conservatively estimated by summing the following doses: the total body air submersion dose for each quarter, the thyroid dose from airborne effluents for each quarter, the total body dose from liquid effluents for each quarter, the thyroid dose from liquid effluents for each quarter, and any identifiable increase in direct radiation dose levels as measured by the environmental monitoring program. This dose is compared to the 40 CFR 190 limit for thyroid dose to determine compliance.

Cumulative annual total doses are presented in Table 9.

Tables 1 and 2
Doses from Airborne Effluents

First Quarter

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location Sector/Distance/Unit
External				
Gamma Air	5.14E-03 mrad	5 mrad	<1	N/950/M
Beta Air	1.86E-03 mrad	10 mrad	<1	N/950/M
Submersion				
Total Body	2.96E-03 mrad	10 mrad	<1	N/1295/M
Skin	4.37E-03 mrad	10 mrad	<1	N/1295/M
Organ Doses				
Child/Thyroid	7.12E-03 mrem	7.5 mrem	<1	N/1829/M
Child/Total Body	7.12E-03 mrem	7.5 mrem	<1	N/1829/M

Population Doses

Total Body Dose 1.88E-02 man-rem
 Maximum Organ Dose (organ) 1.88E-02 man-rem (Thyroid, Liver, Bone, GIT, Lung, Kidney)

Second Quarter

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location Sector/Distance/Unit
External				
Gamma Air	3.75E-03 mrad	5 mrad	<1	N/950/M
Beta Air	1.46E-03 mrad	10 mrad	<1	N/950/M
Submersion				
Total Body	2.15E-03 mrad	10 mrad	<1	N/1295/M
Skin	3.22E-03 mrad	10 mrad	<1	N/1295/M
Organ Doses				
Child/Thyroid	9.01E-03 mrem	7.5 mrem	<1	S/2093/M
Child/Total Body	9.01E-03 mrem	7.5 mrem	<1	S/2093/M

Population Doses

Total Body Dose 5.28E-02 man-rem
 Maximum Organ Dose (organ) 5.28E-02 man-rem (Thyroid, Liver, Bone, GIT, Lung, Kidney)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 95,400 man-rem/year (based on 90 mrem/year for natural background).

Tables 3 and 4
Doses from Airborne Effluents

Third Quarter

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location Sector/Distance/Unit
External				
Gamma Air	8.14E-04 mrad	5 mrad	<1	N/950/M
Beta Air	3.24E-04 mrad	10 mrad	<1	N/950/M
Submersion				
Total Body	6.16E-04 mrad	10 mrad	<1	S/1786/M
Skin	9.18E-04 mrad	10 mrad	<1	S/1786/M
Organ Doses				
Child/Thyroid	1.62E-02 mrem	7.5 mrem	<1	S/2093/M
Child/Total Body	1.62E-02 mrem	7.5 mrem	<1	S/2093/M

Population Doses

Total Body Dose 9.09E-02 man-rem
 Maximum Organ Dose (organ) 9.09E-02 man-rem (Thyroid, Liver, Bone, GIT, Lung, Kidney)

Fourth Quarter

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location Sector/Distance/Units
External				
Gamma Air	5.21E-04 mrad	5 mrad	<1	SSW/1840/M
Beta Air	2.30E-04 mrad	10 mrad	<1	SSW/1840/M
Submersion				
Total Body	3.91E-04 mrad	10 mrad	<1	S/1786/M
Skin	5.89E-04 mrad	10 mrad	<1	S/1786/M
Organ Doses				
Child/Thyroid	6.63E-03 mrem	7.5 mrem	<1	S/2093/M
Child/Total Body	6.63E-03 mrem	7.5 mrem	<1	S/2093/M

Population Doses

Total Body Dose 4.76E-02 man-rem
 Maximum Organ Dose (organ) 4.76E-02 man-rem (Thyroid, Liver, Bone, GIT, Lung, Kidney)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 95,400 man-rem/year (based on 90 mrem/year for natural background).

Tables 5 and 6
Doses from Liquid Effluents

First Quarter

Individual Doses (mrem)

Age Group	Organ	Dose	Quarterly Limit	Percent of Limit
Child	Total Body	3.20E-03	1.5 mrem	< 1 %
Child	Liver	3.30E-03	5 mrem	< 1 %
Child	Thyroid	3.20E-03	5 mrem	< 1 %

Average Riverflow past SQN (cubic feet per second): 22,420

Population Doses

Total Body Dose 2.00E-01 man-rem
Maximum Organ Dose (organ) 2.00E-01 man-rem (GIT, Bone, Thyroid, Liver, Kidney, Lung)

Second Quarter

Individual Doses (mrem)

Age Group	Organ	Dose	Quarterly Limit	Percent of Limit
Child	Total Body	4.70E-03	1.5 mrem	< 1 %
Child	GIT	4.90E-03	5 mrem	< 1 %
Child	Thyroid	4.70E-03	5 mrem	< 1 %

Average Riverflow past SQN (cubic feet per second): 10,941

Population Doses

Total Body Dose 3.10E-01 man-rem
Maximum Organ Dose (organ) 3.10E-01 man-rem (Bone, Liver, GIT, Thyroid, Kidney, Lung)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 95,400 man-rem/year (based on 90 mrem/year for natural background).

Table 9

Total Dose from Fuel Cycle

Dose	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Total Body or any Organ (except thyroid)					
Total body air submersion	2.96E-03	2.15E-03	6.16E-04	3.91E-04	
Critical organ dose (air)	7.12E-03	9.01E-03	1.62E-02	6.63E-03	
Total body dose (liquid)	3.20E-03	4.70E-03	1.80E-03	5.40E-03	
Maximum organ dose (liquid)	3.30E-03	4.90E-03	1.80E-03	5.40E-03	
Direct Radiation Dose	0.00E-00	0.00E-00	0.00E-00	0.00E-00	
Total	1.66E-02	2.08E-02	2.04E-02	1.78E-02	
Cumulative Total Dose (Total body or any other organ) mrem					7.56E-02
<i>Annual Dose Limit (mrem)</i>					25
Percent of Limit					0.30
Thyroid Dose (mrem)					
Total body air submersion	2.96E-03	2.15E-03	6.16E-04	3.91E-04	
Thyroid dose (airborne)	7.12E-03	9.01E-03	1.62E-02	6.63E-03	
Total body dose (liquid)	3.20E-03	4.70E-03	1.80E-03	5.40E-03	
Thyroid dose (liquid)	3.20E-03	4.70E-03	1.80E-03	5.40E-03	
Direct Radiation Dose	0.00E-00	0.00E-00	0.00E-00	0.00E-00	
Total	1.65E-02	2.06E-02	2.04E-02	1.78E-02	
Cumulative Total Dose (Thyroid) mrem					7.53E-02
<i>Annual Dose Limit (mrem)</i>					75
Percent of Limit					0.10

Attachment 1.0

Joint Frequency Distribution Tables

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T <= -1.9 C/100 M)

Sequoyah Nuclear Plant

JAN 1, 2008 - MAR 31, 2008

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.046	0.000	0.139	0.000	0.000	0.000	0.185
NNE	0.000	0.000	0.000	0.139	0.278	0.046	0.000	0.000	0.000	0.463
NE	0.000	0.000	0.000	0.093	0.185	0.185	0.000	0.000	0.000	0.463
ENE	0.000	0.000	0.000	0.093	0.046	0.000	0.000	0.000	0.000	0.139
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.185	0.231	0.046	0.000	0.000	0.463
SSW	0.000	0.000	0.000	0.046	0.370	0.093	0.000	0.000	0.000	0.509
SW	0.000	0.000	0.000	0.046	0.185	0.231	0.046	0.000	0.000	0.509
WSW	0.000	0.000	0.000	0.000	0.046	0.093	0.046	0.000	0.000	0.185
W	0.000	0.000	0.000	0.000	0.093	0.185	0.046	0.000	0.000	0.324
WNW	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.417
NW	0.000	0.000	0.000	0.000	0.000	0.602	0.000	0.000	0.000	0.602
NNW	0.000	0.000	0.000	0.000	0.046	0.370	0.000	0.000	0.000	0.417
SUBTOTAL	0.000	0.000	0.000	0.463	1.435	2.593	0.185	0.000	0.000	4.676

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2160
 TOTAL HOURS OF STABILITY CLASS A 101
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A 101
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2160
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/05/07

MEAN WIND SPEED = 7.96

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9 < DELTA T <= -1.7 C/100 M)

Sequoyah Nuclear Plant

JAN 1, 2008 - MAR 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.139	0.139	0.093	0.000	0.000	0.000	0.370
NNE	0.000	0.000	0.000	0.231	0.231	0.000	0.000	0.000	0.000	0.463
NE	0.000	0.000	0.046	0.278	0.139	0.046	0.000	0.000	0.000	0.509
ENE	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.093
E	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
S	0.000	0.000	0.000	0.000	0.093	0.046	0.000	0.000	0.000	0.139
SSW	0.000	0.000	0.000	0.185	0.463	0.046	0.000	0.000	0.000	0.694
SW	0.000	0.000	0.000	0.185	0.324	0.093	0.093	0.000	0.000	0.694
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.046
W	0.000	0.000	0.000	0.046	0.000	0.139	0.000	0.000	0.000	0.185
WNW	0.000	0.000	0.000	0.000	0.000	0.231	0.000	0.000	0.000	0.231
NW	0.000	0.000	0.000	0.000	0.046	0.185	0.000	0.000	0.000	0.231
NNW	0.000	0.000	0.000	0.046	0.000	0.231	0.000	0.000	0.000	0.278
SUBTOTAL	0.000	0.000	0.093	1.296	1.435	1.157	0.139	0.000	0.000	4.120

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2160
 TOTAL HOURS OF STABILITY CLASS B 89
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 89
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2160
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/05/07

MEAN WIND SPEED = 6.88

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7 < DELTA T <= -1.5 C/100 M)

Sequoyah Nuclear Plant

JAN 1, 2008 - MAR 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.093	0.139	0.046	0.000	0.000	0.000	0.278
NNE	0.000	0.000	0.093	0.093	0.278	0.046	0.000	0.000	0.000	0.509
NE	0.000	0.000	0.185	0.093	0.324	0.000	0.000	0.000	0.000	0.602
ENE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
E	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.000	0.000	0.093	0.000	0.000	0.000	0.000	0.000	0.093
SE	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.093
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.046	0.046	0.185	0.000	0.000	0.000	0.278
SSW	0.000	0.000	0.000	0.324	0.324	0.231	0.000	0.000	0.000	0.880
SW	0.000	0.000	0.046	0.926	0.463	0.000	0.000	0.000	0.000	1.435
WSW	0.000	0.000	0.000	0.046	0.046	0.185	0.000	0.000	0.000	0.278
W	0.000	0.000	0.046	0.000	0.046	0.093	0.046	0.000	0.000	0.231
WNW	0.000	0.000	0.000	0.000	0.000	0.139	0.093	0.000	0.000	0.231
NW	0.000	0.000	0.000	0.000	0.093	0.139	0.000	0.000	0.000	0.231
NNW	0.000	0.000	0.000	0.000	0.000	0.231	0.000	0.000	0.000	0.231
SUBTOTAL	0.000	0.000	0.463	1.806	1.759	1.296	0.139	0.000	0.000	5.463

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2160
 TOTAL HOURS OF STABILITY CLASS C 118
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C 118
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2160
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/05/07

MEAN WIND SPEED = 6.30

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5 < DELTA T <= -0.5 C/100 M)

Sequoyah Nuclear Plant

JAN 1, 2008 - MAR 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.741	1.528	1.111	0.509	0.000	0.000	0.000	3.889
NNE	0.000	0.000	1.296	1.620	2.083	1.435	0.000	0.000	0.000	6.435
NE	0.000	0.046	1.065	0.417	0.139	0.000	0.000	0.000	0.000	1.667
ENE	0.000	0.000	0.185	0.000	0.000	0.000	0.000	0.000	0.000	0.185
E	0.000	0.000	0.139	0.000	0.000	0.000	0.000	0.000	0.000	0.139
ESE	0.000	0.046	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.139
SE	0.000	0.046	0.324	0.000	0.000	0.000	0.000	0.000	0.000	0.370
SSE	0.000	0.000	0.185	0.185	0.000	0.139	0.093	0.000	0.000	0.602
S	0.000	0.093	0.833	0.648	0.648	0.926	0.046	0.000	0.000	3.194
SSW	0.000	0.000	1.111	3.056	1.713	0.648	0.000	0.000	0.000	6.528
SW	0.000	0.046	1.574	2.130	0.741	0.370	0.000	0.000	0.000	4.861
WSW	0.000	0.046	0.324	0.231	0.185	0.509	0.000	0.000	0.000	1.296
W	0.000	0.139	0.278	0.185	0.648	0.556	0.093	0.000	0.000	1.898
WNW	0.000	0.000	0.139	0.417	0.556	0.694	0.139	0.000	0.000	1.944
NW	0.000	0.000	0.185	0.509	1.019	1.296	0.046	0.000	0.000	3.056
NNW	0.000	0.000	0.417	0.972	1.111	0.833	0.000	0.000	0.000	3.333
SUBTOTAL	0.000	0.463	8.889	11.898	9.954	7.917	0.417	0.000	0.000	39.537

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2160
 TOTAL HOURS OF STABILITY CLASS D 854
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 854
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2160
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/05/07

MEAN WIND SPEED = 5.47

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5 < DELTA T <= 1.5 C/100 M)

Sequoyah Nuclear Plant

JAN 1, 2008 - MAR 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.006	0.278	1.806	1.019	0.139	0.000	0.000	0.000	0.000	3.247
NNE	0.009	0.139	2.963	1.111	0.463	0.046	0.000	0.000	0.000	4.731
NE	0.002	0.093	0.602	0.093	0.000	0.000	0.000	0.000	0.000	0.789
ENE	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
E	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.093	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.139
SSE	0.000	0.046	0.046	0.139	0.093	0.231	0.000	0.000	0.000	0.556
S	0.004	0.185	1.204	0.741	0.880	1.620	0.000	0.000	0.000	4.634
SSW	0.006	0.046	1.944	2.269	1.296	0.231	0.000	0.000	0.000	5.793
SW	0.006	0.139	1.806	1.065	0.231	0.139	0.000	0.000	0.000	3.385
WSW	0.004	0.139	1.111	0.741	0.046	0.046	0.000	0.000	0.000	2.087
W	0.003	0.231	0.741	0.602	0.278	0.139	0.000	0.000	0.000	1.994
WNW	0.001	0.046	0.370	0.185	0.185	0.185	0.000	0.000	0.000	0.973
NW	0.002	0.139	0.556	0.046	0.000	0.046	0.000	0.000	0.000	0.789
NNW	0.003	0.278	0.694	0.602	0.046	0.046	0.000	0.000	0.000	1.670
SUBTOTAL	0.046	1.991	13.843	8.657	3.657	2.731	0.000	0.000	0.000	30.926

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2160
 TOTAL HOURS OF STABILITY CLASS E 668
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 668
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2160
 TOTAL HOURS CALM 1

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

MEAN WIND SPEED = 3.95

DATE PRINTED: 2008/05/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F (1.5 < DELTA T <= 4.0 C/100 M)

Sequoyah Nuclear Plant

JAN 1, 2008 - MAR 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.046	0.417	0.046	0.000	0.000	0.000	0.000	0.000	0.509
NNE	0.000	0.139	2.593	0.139	0.000	0.000	0.000	0.000	0.000	2.870
NE	0.000	0.185	1.157	0.000	0.000	0.000	0.000	0.000	0.000	1.343
ENE	0.000	0.139	0.231	0.000	0.000	0.000	0.000	0.000	0.000	0.370
E	0.000	0.046	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.139
ESE	0.000	0.000	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.093
SE	0.000	0.093	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.185
SSE	0.000	0.139	0.185	0.000	0.000	0.000	0.000	0.000	0.000	0.324
S	0.000	0.139	0.556	0.046	0.000	0.000	0.000	0.000	0.000	0.741
SSW	0.000	0.185	1.713	0.046	0.000	0.000	0.000	0.000	0.000	1.944
SW	0.000	0.093	1.111	0.185	0.000	0.000	0.000	0.000	0.000	1.389
WSW	0.000	0.000	0.231	0.046	0.000	0.000	0.000	0.000	0.000	0.278
W	0.000	0.046	0.139	0.000	0.000	0.000	0.000	0.000	0.000	0.185
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.139	0.046	0.000	0.000	0.000	0.000	0.000	0.185
NNW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SUBTOTAL	0.000	1.250	8.796	0.556	0.000	0.000	0.000	0.000	0.000	10.602

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2160
TOTAL HOURS OF STABILITY CLASS F	229
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	229
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2160
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/05/07

MEAN WIND SPEED = 2.18

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Sequoyah Nuclear Plant

JAN 1, 2008 - MAR 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.046	0.139	0.000	0.000	0.000	0.000	0.000	0.000	0.185
NNE	0.000	0.046	0.741	0.046	0.000	0.000	0.000	0.000	0.000	0.833
NE	0.000	0.139	0.509	0.046	0.000	0.000	0.000	0.000	0.000	0.694
ENE	0.000	0.139	0.139	0.000	0.000	0.000	0.000	0.000	0.000	0.278
E	0.000	0.139	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.185
ESE	0.000	0.139	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.231
SE	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.000	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.093
S	0.000	0.093	0.139	0.046	0.000	0.000	0.000	0.000	0.000	0.278
SSW	0.000	0.000	0.833	0.046	0.000	0.000	0.000	0.000	0.000	0.880
SW	0.000	0.000	0.880	0.046	0.000	0.000	0.000	0.000	0.000	0.926
WSW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.787	3.657	0.231	0.000	0.000	0.000	0.000	0.000	4.676

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2160
TOTAL HOURS OF STABILITY CLASS G	101
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	101
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2160
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/05/07

MEAN WIND SPEED = 2.17

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T <= -1.9 C/100 M)

Sequoyah Nuclear Plant

APR 1, 2008 - JUN 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.046	0.369	0.507	0.046	0.000	0.000	0.000	0.968
NNE	0.000	0.046	0.277	1.245	0.876	0.138	0.000	0.000	0.000	2.582
NE	0.000	0.000	0.231	1.014	0.231	0.092	0.000	0.000	0.000	1.568
ENE	0.000	0.000	0.092	0.138	0.000	0.000	0.000	0.000	0.000	0.231
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.046	0.000	0.046	0.000	0.000	0.000	0.092
S	0.000	0.000	0.046	0.046	0.092	0.092	0.000	0.000	0.000	0.277
SSW	0.000	0.000	0.000	0.461	1.153	0.599	0.000	0.000	0.000	2.213
SW	0.000	0.000	0.000	0.645	1.060	0.138	0.000	0.000	0.000	1.844
WSW	0.000	0.000	0.092	0.000	0.184	0.000	0.000	0.000	0.000	0.277
W	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.092
WNW	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.092
NW	0.000	0.000	0.000	0.000	0.231	0.092	0.000	0.000	0.000	0.323
NNW	0.000	0.000	0.000	0.138	0.323	0.231	0.000	0.000	0.000	0.692
SUBTOTAL	0.000	0.046	0.784	4.103	4.703	1.614	0.000	0.000	0.000	11.249

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2169
TOTAL HOURS OF STABILITY CLASS A	244
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	244
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2169
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/08/05

MEAN WIND SPEED = 5.76

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9 < DELTA T <= -1.7 C/100 M)

Sequoyah Nuclear Plant

APR 1, 2008 - JUN 30, 2008

WIND DIRECTION	CALM	WIND SPEED (MPH)								TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.138	0.138	0.092	0.046	0.000	0.000	0.000	0.415
NNE	0.000	0.000	0.231	0.184	0.046	0.046	0.000	0.000	0.000	0.507
NE	0.000	0.000	0.184	0.046	0.046	0.000	0.000	0.000	0.000	0.277
ENE	0.000	0.000	0.231	0.046	0.000	0.000	0.000	0.000	0.000	0.277
E	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.000	0.046	0.092	0.000	0.000	0.000	0.000	0.000	0.138
SE	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
S	0.000	0.000	0.046	0.507	0.092	0.277	0.000	0.000	0.000	0.922
SSW	0.000	0.000	0.277	0.830	0.507	0.184	0.000	0.000	0.000	1.798
SW	0.000	0.000	0.138	0.553	0.461	0.046	0.000	0.000	0.000	1.199
WSW	0.000	0.000	0.000	0.184	0.000	0.092	0.092	0.000	0.000	0.369
W	0.000	0.000	0.000	0.138	0.092	0.000	0.000	0.000	0.000	0.231
WNW	0.000	0.000	0.000	0.046	0.046	0.092	0.000	0.000	0.000	0.184
NW	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
NNW	0.000	0.000	0.046	0.138	0.046	0.000	0.000	0.000	0.000	0.231
SUBTOTAL	0.000	0.000	1.429	2.951	1.429	0.830	0.092	0.000	0.000	6.731

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2169
 TOTAL HOURS OF STABILITY CLASS B 146
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 146
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2169
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/08/05

MEAN WIND SPEED = 5.19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7 < DELTA T <= -1.5 C/100 M)

Sequoyah Nuclear Plant

APR 1, 2008 - JUN 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.138	0.046	0.092	0.046	0.000	0.000	0.000	0.323
NNE	0.000	0.000	0.138	0.000	0.092	0.000	0.000	0.000	0.000	0.231
NE	0.000	0.000	0.277	0.092	0.000	0.000	0.000	0.000	0.000	0.369
ENE	0.000	0.000	0.092	0.046	0.000	0.000	0.000	0.000	0.000	0.138
E	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.092
ESE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.092
SSE	0.000	0.000	0.046	0.092	0.000	0.000	0.000	0.000	0.000	0.138
S	0.000	0.000	0.046	0.369	0.277	0.046	0.000	0.000	0.000	0.738
SSW	0.000	0.000	0.138	1.107	0.369	0.092	0.000	0.000	0.000	1.706
SW	0.000	0.000	0.277	0.876	0.323	0.092	0.000	0.000	0.000	1.568
WSW	0.000	0.000	0.046	0.092	0.138	0.092	0.000	0.000	0.000	0.369
W	0.000	0.000	0.046	0.092	0.000	0.000	0.000	0.000	0.000	0.138
WNW	0.000	0.000	0.000	0.046	0.046	0.046	0.000	0.000	0.000	0.138
NW	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
NNW	0.000	0.000	0.000	0.138	0.092	0.092	0.000	0.000	0.000	0.323
SUBTOTAL	0.000	0.000	1.429	3.043	1.475	0.507	0.000	0.000	0.000	6.455

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2169
TOTAL HOURS OF STABILITY CLASS C	140
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	140
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2169
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/08/05

MEAN WIND SPEED = 4.82

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5 < DELTA T <= -0.5 C/100 M)

Sequoyah Nuclear Plant

APR 1, 2008 - JUN 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.092	1.291	0.922	0.830	0.000	0.000	0.000	0.000	3.135
NNE	0.000	0.092	0.968	0.922	0.369	0.092	0.000	0.000	0.000	2.444
NE	0.000	0.046	0.415	0.138	0.092	0.000	0.000	0.000	0.000	0.692
ENE	0.000	0.000	0.184	0.046	0.000	0.000	0.000	0.000	0.000	0.231
E	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.092
ESE	0.000	0.000	0.184	0.000	0.000	0.000	0.000	0.000	0.000	0.184
SE	0.000	0.046	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.184
SSE	0.000	0.046	0.369	0.369	0.000	0.138	0.000	0.000	0.000	0.922
S	0.000	0.046	1.568	1.291	0.968	0.369	0.000	0.000	0.000	4.242
SSW	0.000	0.092	2.720	2.951	1.245	0.369	0.000	0.000	0.000	7.377
SW	0.000	0.046	1.245	2.075	1.337	0.138	0.000	0.000	0.000	4.841
WSW	0.000	0.000	0.415	0.692	0.461	0.092	0.000	0.000	0.000	1.660
W	0.000	0.046	0.092	0.184	0.231	0.415	0.046	0.000	0.000	1.014
WNW	0.000	0.138	0.046	0.138	0.323	0.184	0.000	0.000	0.000	0.830
NW	0.000	0.000	0.323	0.369	0.277	0.138	0.000	0.000	0.000	1.107
NNW	0.000	0.046	0.553	0.738	0.461	0.231	0.000	0.000	0.000	2.029
SUBTOTAL	0.000	0.738	10.604	10.834	6.593	2.167	0.046	0.000	0.000	30.982

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2169
 TOTAL HOURS OF STABILITY CLASS D 672
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 672
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2169
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/08/05

MEAN WIND SPEED = 4.42

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5 < DELTA T <= 1.5 C/100 M)

Sequoyah Nuclear Plant

APR 1, 2008 - JUN 30, 2008

WIND DIRECTION	CALM	WIND SPEED (MPH)								TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.006	0.277	2.582	0.876	0.277	0.000	0.000	0.000	0.000	4.017
NNE	0.005	0.369	1.706	0.277	0.000	0.000	0.000	0.000	0.000	2.356
NE	0.001	0.277	0.184	0.092	0.000	0.000	0.000	0.000	0.000	0.554
ENE	0.001	0.231	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.231
E	0.000	0.092	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.185
ESE	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.092
SE	0.000	0.046	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.185
SSE	0.002	0.138	0.645	0.046	0.000	0.092	0.000	0.000	0.000	0.924
S	0.005	0.092	2.075	1.107	0.599	0.231	0.000	0.000	0.000	4.108
SSW	0.009	0.369	3.873	1.614	0.277	0.046	0.000	0.000	0.000	6.187
SW	0.007	0.138	2.997	1.014	0.277	0.000	0.000	0.000	0.000	4.433
WSW	0.004	0.138	1.568	0.461	0.000	0.000	0.000	0.000	0.000	2.171
W	0.001	0.092	0.461	0.184	0.000	0.000	0.000	0.000	0.000	0.739
WNW	0.001	0.046	0.184	0.046	0.138	0.000	0.000	0.000	0.000	0.415
NW	0.001	0.184	0.369	0.092	0.000	0.046	0.000	0.000	0.000	0.693
NNW	0.003	0.184	1.337	0.692	0.138	0.000	0.000	0.000	0.000	2.355
SUBTOTAL	0.046	2.720	18.257	6.501	1.706	0.415	0.000	0.000	0.000	29.645

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2169
 TOTAL HOURS OF STABILITY CLASS E 643
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 643
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2169
 TOTAL HOURS CALM 1

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/08/05

MEAN WIND SPEED = 2.98

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F (1.5 < DELTA T <= 4.0 C/100·M)

Sequoyah Nuclear Plant

APR 1, 2008 - JUN 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.645	1.936	0.184	0.000	0.000	0.000	0.000	0.000	2.766
NNE	0.000	0.645	2.812	0.000	0.000	0.000	0.000	0.000	0.000	3.458
NE	0.000	0.369	0.507	0.000	0.000	0.000	0.000	0.000	0.000	0.876
ENE	0.000	0.231	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.277
E	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.092
ESE	0.000	0.323	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.323
SE	0.000	0.369	0.184	0.000	0.000	0.000	0.000	0.000	0.000	0.553
SSE	0.000	0.231	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.369
S	0.000	0.184	0.369	0.000	0.000	0.000	0.000	0.000	0.000	0.553
SSW	0.000	0.138	0.830	0.000	0.000	0.000	0.000	0.000	0.000	0.968
SW	0.000	0.046	0.599	0.000	0.000	0.000	0.000	0.000	0.000	0.645
WSW	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
W	0.000	0.000	0.184	0.000	0.000	0.000	0.000	0.000	0.000	0.184
WNW	0.000	0.092	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.231
NW	0.000	0.138	0.323	0.138	0.000	0.000	0.000	0.000	0.000	0.599
NNW	0.000	0.184	0.784	0.046	0.000	0.000	0.000	0.000	0.000	1.014
SUBTOTAL	0.000	3.734	8.852	0.369	0.000	0.000	0.000	0.000	0.000	12.955

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2169
 TOTAL HOURS OF STABILITY CLASS F 281
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F 281
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2169
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/08/05

MEAN WIND SPEED = 1.90

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 G/100 M)

Sequoyah Nuclear Plant

APR 1, 2008 - JUN 30, 2008

WIND DIRECTION	CALM	WIND SPEED (MPH)								TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.184	0.000	0.000	0.000	0.000	0.000	0.000	0.184
NNE	0.000	0.000	0.323	0.000	0.000	0.000	0.000	0.000	0.000	0.323
NE	0.000	0.046	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.184
ENE	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.092
E	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.184	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.277
S	0.000	0.092	0.277	0.000	0.000	0.000	0.000	0.000	0.000	0.369
SSW	0.000	0.046	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.184
SW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
WSW	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.092
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.092
SUBTOTAL	0.000	0.645	1.337	0.000	0.000	0.000	0.000	0.000	0.000	1.982

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2169
 TOTAL HOURS OF STABILITY CLASS G 43
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G 43
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2169
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/08/05

MEAN WIND SPEED = 1.75

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T <= -1.9 C/100 M)

Sequoyah Nuclear Plant

JUL 1, 2008 - SEP 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.048	0.482	0.241	0.000	0.000	0.000	0.000	0.771
NNE	0.000	0.000	0.193	2.071	0.819	0.096	0.000	0.000	0.000	3.179
NE	0.000	0.000	0.482	1.445	0.530	0.048	0.000	0.000	0.000	2.505
ENE	0.000	0.000	0.048	0.096	0.048	0.048	0.000	0.000	0.000	0.241
E	0.000	0.000	0.000	0.193	0.048	0.000	0.000	0.000	0.000	0.241
ESE	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.048
SE	0.000	0.000	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.096
SSE	0.000	0.000	0.000	0.048	0.000	0.193	0.000	0.000	0.000	0.241
S	0.000	0.000	0.000	0.145	0.337	0.048	0.000	0.000	0.000	0.530
SSW	0.000	0.000	0.000	0.337	0.626	0.000	0.000	0.000	0.000	0.963
SW	0.000	0.000	0.048	0.626	0.337	0.048	0.000	0.000	0.000	1.060
WSW	0.000	0.000	0.000	0.000	0.289	0.048	0.000	0.000	0.000	0.337
W	0.000	0.000	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.096
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.096
NNW	0.000	0.000	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.096
SUBTOTAL	0.000	0.000	0.819	5.877	3.276	0.530	0.000	0.000	0.000	10.501

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2076
 TOTAL HOURS OF STABILITY CLASS A 218
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A 218
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2076
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/11/20

MEAN WIND SPEED = 5.13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9 < DELTA T <= -1.7 C/100 M)

Sequoyah Nuclear Plant

JUL 1, 2008 - SEP 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.241	0.241	0.048	0.000	0.000	0.000	0.000	0.530
NNE	0.000	0.000	0.289	0.530	0.145	0.000	0.000	0.000	0.000	0.963
NE	0.000	0.000	0.337	0.241	0.000	0.048	0.000	0.000	0.000	0.626
ENE	0.000	0.000	0.096	0.048	0.000	0.000	0.000	0.000	0.000	0.145
E	0.000	0.000	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.096
ESE	0.000	0.000	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.096
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.048	0.241	0.048	0.000	0.000	0.000	0.000	0.337
S	0.000	0.000	0.000	0.241	0.048	0.000	0.000	0.000	0.000	0.289
SSW	0.000	0.000	0.048	1.108	0.096	0.000	0.000	0.000	0.000	1.252
SW	0.000	0.000	0.145	0.963	0.048	0.000	0.000	0.000	0.000	1.156
WSW	0.000	0.000	0.048	0.241	0.048	0.000	0.000	0.000	0.000	0.337
W	0.000	0.000	0.048	0.048	0.048	0.000	0.000	0.000	0.000	0.145
WNW	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.048
NW	0.000	0.000	0.048	0.096	0.000	0.000	0.000	0.000	0.000	0.145
NNW	0.000	0.000	0.096	0.048	0.000	0.000	0.000	0.000	0.000	0.145
SUBTOTAL	0.000	0.000	1.445	4.239	0.578	0.048	0.000	0.000	0.000	6.310

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2076
 TOTAL HOURS OF STABILITY CLASS B 131
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 131
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2076
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/11/20

MEAN WIND SPEED = 4.27

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7 < DELTA T <= -1.5 C/100 M)

Sequoyah Nuclear Plant

JUL 1, 2008 - SEP 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.145	0.289	0.048	0.000	0.000	0.000	0.000	0.482
NNE	0.000	0.000	0.530	0.626	0.000	0.000	0.000	0.000	0.000	1.156
NE	0.000	0.000	0.337	0.289	0.000	0.000	0.000	0.000	0.000	0.626
ENE	0.000	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.096
E	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.048
ESE	0.000	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.096
SE	0.000	0.000	0.048	0.289	0.000	0.000	0.000	0.000	0.000	0.337
SSE	0.000	0.000	0.145	0.145	0.000	0.000	0.000	0.000	0.000	0.289
S	0.000	0.000	0.145	0.385	0.193	0.096	0.000	0.000	0.000	0.819
SSW	0.000	0.000	0.241	0.963	0.096	0.048	0.000	0.000	0.000	1.349
SW	0.000	0.000	0.530	0.578	0.048	0.000	0.000	0.000	0.000	1.156
WSW	0.000	0.000	0.048	0.096	0.048	0.000	0.000	0.000	0.000	0.193
W	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.048
WNW	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.048
NW	0.000	0.000	0.048	0.096	0.048	0.000	0.000	0.000	0.000	0.193
NNW	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.048
SUBTOTAL	0.000	0.000	2.505	3.805	0.530	0.145	0.000	0.000	0.000	6.985

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2076
 TOTAL HOURS OF STABILITY CLASS C 145
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C 145
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2076
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

MEAN WIND SPEED = 3.99

DATE PRINTED: 2008/11/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5 < DELTA T <= -0.5 C/100 M)

Sequoyah Nuclear Plant

JUL 1, 2008 - SEP 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.145	1.493	1.301	0.145	0.048	0.000	0.000	0.000	3.131
NNE	0.000	0.048	1.204	1.927	0.434	0.000	0.000	0.000	0.000	3.613
NE	0.000	0.000	0.241	0.626	0.145	0.193	0.000	0.000	0.000	1.204
ENE	0.000	0.000	0.193	0.337	0.000	0.048	0.000	0.000	0.000	0.578
E	0.000	0.000	0.241	0.241	0.096	0.000	0.000	0.000	0.000	0.578
ESE	0.000	0.000	0.289	0.145	0.048	0.000	0.000	0.000	0.000	0.482
SE	0.000	0.096	0.482	0.193	0.048	0.000	0.000	0.000	0.000	0.819
SSE	0.000	0.000	1.108	0.482	0.145	0.000	0.000	0.000	0.000	1.734
S	0.000	0.048	2.360	2.505	0.289	0.048	0.000	0.000	0.000	5.250
SSW	0.000	0.000	3.516	1.927	0.193	0.048	0.000	0.000	0.000	5.684
SW	0.000	0.048	1.445	0.674	0.048	0.000	0.000	0.000	0.000	2.216
WSW	0.000	0.000	0.674	0.482	0.096	0.000	0.000	0.000	0.000	1.252
W	0.000	0.048	0.337	0.145	0.096	0.000	0.000	0.000	0.000	0.626
WNW	0.000	0.096	0.289	0.241	0.000	0.000	0.000	0.000	0.000	0.626
NW	0.000	0.000	0.434	0.096	0.096	0.000	0.000	0.000	0.000	0.626
NNW	0.000	0.193	0.578	0.482	0.048	0.000	0.000	0.000	0.000	1.301
SUBTOTAL	0.000	0.723	14.884	11.802	1.927	0.385	0.000	0.000	0.000	29.721

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2076
 TOTAL HOURS OF STABILITY CLASS D 617
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 617
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2076
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/11/20

MEAN WIND SPEED = 3.53

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5 < DELTA T <= 1.5 C/100 M)

Sequoyah Nuclear Plant

JUL 1, 2008 - SEP 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.723	3.998	1.445	0.000	0.000	0.000	0.000	0.000	6.166
NNE	0.000	0.963	3.613	0.530	0.048	0.000	0.000	0.000	0.000	5.154
NE	0.000	0.289	0.385	0.145	0.000	0.000	0.000	0.000	0.000	0.819
ENE	0.000	0.048	0.337	0.000	0.000	0.000	0.000	0.000	0.000	0.385
E	0.000	0.145	0.096	0.048	0.000	0.000	0.000	0.000	0.000	0.289
ESE	0.000	0.048	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.145
SE	0.000	0.289	0.193	0.048	0.000	0.000	0.000	0.000	0.000	0.530
SSE	0.000	0.289	0.723	0.096	0.048	0.000	0.000	0.000	0.000	1.156
S	0.000	0.674	1.301	0.289	0.096	0.000	0.000	0.000	0.000	2.360
SSW	0.000	0.289	2.071	0.145	0.000	0.000	0.000	0.000	0.000	2.505
SW	0.000	0.578	2.360	0.434	0.000	0.000	0.000	0.000	0.000	3.372
WSW	0.000	0.145	1.349	0.289	0.048	0.048	0.000	0.000	0.000	1.879
W	0.000	0.096	0.626	0.048	0.000	0.000	0.000	0.000	0.000	0.771
WNW	0.000	0.337	0.337	0.096	0.000	0.000	0.000	0.000	0.000	0.771
NW	0.000	0.241	0.819	0.000	0.000	0.000	0.000	0.000	0.000	1.060
NNW	0.000	0.385	1.879	0.723	0.000	0.048	0.000	0.000	0.000	3.035
SUBTOTAL	0.000	5.539	20.183	4.335	0.241	0.096	0.000	0.000	0.000	30.395

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2076
 TOTAL HOURS OF STABILITY CLASS E 631
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 631
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2076
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

MEAN WIND SPEED = 2.32

DATE PRINTED: 2008/11/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F (1.5 < DELTA T <= 4.0 C/100 M)

Sequoyah Nuclear Plant

JUL 1, 2008 - SEP 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.015	0.819	3.805	0.193	0.000	0.000	0.000	0.000	0.000	4.832
NNE	0.017	0.867	4.287	0.096	0.000	0.000	0.000	0.000	0.000	5.267
NE	0.003	0.434	0.434	0.000	0.000	0.000	0.000	0.000	0.000	0.870
ENE	0.000	0.096	0.048	0.048	0.000	0.000	0.000	0.000	0.000	0.193
E	0.001	0.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.242
ESE	0.000	0.096	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.145
SE	0.001	0.145	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.193
SSE	0.002	0.289	0.241	0.000	0.000	0.000	0.000	0.000	0.000	0.532
S	0.002	0.289	0.337	0.000	0.000	0.000	0.000	0.000	0.000	0.628
SSW	0.001	0.096	0.337	0.048	0.000	0.000	0.000	0.000	0.000	0.483
SW	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.048
WSW	0.001	0.096	0.145	0.000	0.000	0.000	0.000	0.000	0.000	0.242
W	0.000	0.048	0.048	0.048	0.000	0.000	0.000	0.000	0.000	0.145
WNW	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048
NW	0.001	0.096	0.241	0.000	0.000	0.000	0.000	0.000	0.000	0.338
NNW	0.003	0.145	0.771	0.096	0.000	0.000	0.000	0.000	0.000	1.015
SUBTOTAL	0.048	3.805	10.838	0.530	0.000	0.000	0.000	0.000	0.000	15.222

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2076
 TOTAL HOURS OF STABILITY CLASS F 316
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F 316
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2076
 TOTAL HOURS CALM 1

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2008/11/20

MEAN WIND SPEED = 1.93

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Sequoyah Nuclear Plant

JUL 1, 2008 - SEP 30, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.048	0.145	0.000	0.000	0.000	0.000	0.000	0.000	0.193
NNE	0.000	0.048	0.337	0.000	0.000	0.000	0.000	0.000	0.000	0.385
NE	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048
ENE	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.048
E	0.000	0.048	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.096
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.096
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.193	0.674	0.000	0.000	0.000	0.000	0.000	0.000	0.867

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2076
 TOTAL HOURS OF STABILITY CLASS G 18
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G 18
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2076
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

MEAN WIND SPEED = 2.11

DATE PRINTED: 2008/11/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Sequoyah Nuclear Plant

OCT 1, 2008 - DEC 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.182	0.091	0.000	0.000	0.000	0.273
NNE	0.000	0.000	0.000	0.364	0.091	0.409	0.000	0.000	0.000	0.864
NE	0.000	0.000	0.000	0.318	0.182	0.000	0.000	0.000	0.000	0.500
ENE	0.000	0.000	0.000	0.091	0.000	0.000	0.000	0.000	0.000	0.091
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.045
S	0.000	0.000	0.000	0.091	0.091	0.000	0.000	0.000	0.000	0.182
SSW	0.000	0.000	0.091	0.455	0.273	0.000	0.000	0.000	0.000	0.819
SW	0.000	0.000	0.182	0.364	0.182	0.000	0.000	0.000	0.000	0.728
WSW	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.045
W	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.045
WNW	0.000	0.000	0.000	0.000	0.000	0.091	0.000	0.000	0.000	0.091
NW	0.000	0.000	0.000	0.000	0.045	0.045	0.000	0.000	0.000	0.091
NNW	0.000	0.000	0.000	0.000	0.045	0.409	0.000	0.000	0.000	0.455
SUBTOTAL	0.000	0.000	0.318	1.729	1.137	1.046	0.000	0.000	0.000	4.231

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2198
TOTAL HOURS OF STABILITY CLASS A	93
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	93
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2198
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2009/02/26

MEAN WIND SPEED = 5.93

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9 < DELTA T <= -1.7 C/100 M)

Sequoyah Nuclear Plant

OCT 1, 2008 - DEC 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.136	0.318	0.000	0.000	0.000	0.455
NNE	0.000	0.000	0.091	0.546	0.227	0.045	0.000	0.000	0.000	0.910
NE	0.000	0.000	0.136	0.273	0.091	0.045	0.000	0.000	0.000	0.546
ENE	0.000	0.000	0.000	0.136	0.000	0.000	0.000	0.000	0.000	0.136
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.045
SSE	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.045
S	0.000	0.000	0.000	0.091	0.000	0.045	0.045	0.000	0.000	0.182
SSW	0.000	0.000	0.045	0.409	0.136	0.045	0.000	0.000	0.000	0.637
SW	0.000	0.000	0.136	0.227	0.045	0.045	0.000	0.000	0.000	0.455
WSW	0.000	0.000	0.045	0.045	0.000	0.091	0.000	0.000	0.000	0.182
W	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.045
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.091	0.045	0.136	0.000	0.000	0.000	0.273
NNW	0.000	0.000	0.000	0.045	0.136	0.045	0.000	0.000	0.000	0.227
SUBTOTAL	0.000	0.000	0.500	1.956	0.819	0.819	0.045	0.000	0.000	4.140

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2198
 TOTAL HOURS OF STABILITY CLASS B 91
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 91
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2198
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

MEAN WIND SPEED = 5.62

DATE PRINTED: 2009/02/26

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7 < DELTA T <= -1.5 C/100 M)

Sequoyah Nuclear Plant

OCT 1, 2008 - DEC 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.318	0.227	0.227	0.000	0.000	0.000	0.773
NNE	0.000	0.000	0.136	0.637	0.136	0.091	0.000	0.000	0.000	1.001
NE	0.000	0.000	0.455	0.409	0.045	0.000	0.000	0.000	0.000	0.910
ENE	0.000	0.000	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.091
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.045
SE	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.045
SSE	0.000	0.000	0.000	0.136	0.000	0.000	0.000	0.000	0.000	0.136
S	0.000	0.000	0.000	0.182	0.000	0.045	0.000	0.000	0.000	0.227
SSW	0.000	0.000	0.045	0.364	0.045	0.000	0.000	0.000	0.000	0.455
SW	0.000	0.000	0.091	0.455	0.000	0.000	0.000	0.000	0.000	0.546
WSW	0.000	0.000	0.045	0.136	0.000	0.091	0.000	0.000	0.000	0.273
W	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.045
WNW	0.000	0.000	0.000	0.000	0.091	0.045	0.000	0.000	0.000	0.136
NW	0.000	0.000	0.000	0.091	0.091	0.045	0.000	0.000	0.000	0.227
NNW	0.000	0.000	0.000	0.136	0.136	0.136	0.000	0.000	0.000	0.409
SUBTOTAL	0.000	0.000	0.910	2.957	0.773	0.682	0.000	0.000	0.000	5.323

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2198
TOTAL HOURS OF STABILITY CLASS C	117
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	117
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2198
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2009/02/26

MEAN WIND SPEED = 4.85

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5 < DELTA T <= -0.5 C/100 M)

Sequoyah Nuclear Plant

OCT 1, 2008 - DEC 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.227	1.137	1.456	1.046	0.910	0.045	0.000	0.000	4.823
NNE	0.000	0.091	1.911	2.684	1.365	0.637	0.045	0.000	0.000	6.733
NE	0.000	0.136	1.274	0.728	0.045	0.000	0.000	0.000	0.000	2.184
ENE	0.000	0.091	0.273	0.000	0.000	0.000	0.000	0.000	0.000	0.364
E	0.000	0.091	0.136	0.273	0.000	0.000	0.000	0.000	0.000	0.500
ESE	0.000	0.136	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.273
SE	0.000	0.000	0.227	0.091	0.000	0.000	0.000	0.000	0.000	0.318
SSE	0.000	0.045	0.227	0.000	0.045	0.000	0.000	0.000	0.000	0.318
S	0.000	0.045	0.682	1.137	0.409	0.318	0.000	0.000	0.000	2.593
SSW	0.000	0.000	1.774	1.046	0.455	0.182	0.000	0.000	0.000	3.458
SW	0.000	0.000	1.501	1.592	0.728	0.318	0.000	0.000	0.000	4.140
WSW	0.000	0.000	0.364	0.637	0.273	0.136	0.000	0.000	0.000	1.410
W	0.000	0.045	0.273	0.045	0.182	0.182	0.000	0.000	0.000	0.728
WNW	0.000	0.000	0.455	0.136	0.091	0.227	0.000	0.000	0.000	0.910
NW	0.000	0.136	0.455	0.455	0.318	0.273	0.045	0.000	0.000	1.683
NNW	0.000	0.091	0.591	0.682	1.046	0.773	0.000	0.000	0.000	3.185
SUBTOTAL	0.000	1.137	11.419	10.965	6.005	3.958	0.136	0.000	0.000	33.621

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2198
 TOTAL HOURS OF STABILITY CLASS D 739
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 739
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2198
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

MEAN WIND SPEED = 4.52

DATE PRINTED: 2009/02/26

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5 < DELTA T <= 1.5 C/100 M)

Sequoyah Nuclear Plant

OCT 1, 2008 - DEC 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.364	3.594	1.365	0.500	0.000	0.000	0.000	0.000	5.823
NNE	0.000	0.364	3.458	1.183	0.091	0.000	0.000	0.000	0.000	5.096
NE	0.000	0.136	0.637	0.091	0.000	0.000	0.000	0.000	0.000	0.864
ENE	0.000	0.091	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.227
E	0.000	0.045	0.091	0.091	0.045	0.000	0.000	0.000	0.000	0.273
ESE	0.000	0.045	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.091
SE	0.000	0.000	0.273	0.000	0.000	0.000	0.000	0.000	0.000	0.273
SSE	0.000	0.136	0.227	0.045	0.045	0.000	0.000	0.000	0.000	0.455
S	0.000	0.136	0.910	0.273	0.728	0.409	0.000	0.000	0.000	2.457
SSW	0.000	0.364	2.229	0.955	0.546	0.045	0.000	0.000	0.000	4.140
SW	0.000	0.318	2.639	2.229	0.409	0.045	0.000	0.000	0.000	5.641
WSW	0.000	0.227	1.410	0.728	0.091	0.000	0.000	0.000	0.000	2.457
W	0.000	0.227	0.500	0.364	0.045	0.000	0.000	0.000	0.000	1.137
WNW	0.000	0.182	0.500	0.364	0.045	0.045	0.000	0.000	0.000	1.137
NW	0.000	0.091	0.819	0.637	0.227	0.045	0.000	0.000	0.000	1.820
NNW	0.000	0.182	1.137	0.591	0.182	0.091	0.000	0.000	0.000	2.184
SUBTOTAL	0.000	2.912	18.608	8.917	2.957	0.682	0.000	0.000	0.000	34.076

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2198
 TOTAL HOURS OF STABILITY CLASS E 749
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 749
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2198
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2009/02/26

MEAN WIND SPEED = 3.24

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F (1.5< DELTA T<= 4.0 C/100 M)

Sequoyah Nuclear Plant

OCT 1, 2008 - DEC 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.455	2.730	0.227	0.000	0.000	0.000	0.000	0.000	3.412
NNE	0.000	0.682	4.049	0.136	0.000	0.000	0.000	0.000	0.000	4.868
NE	0.000	0.591	0.364	0.000	0.000	0.000	0.000	0.000	0.000	0.955
ENE	0.000	0.136	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.227
E	0.000	0.091	0.182	0.000	0.000	0.000	0.000	0.000	0.000	0.273
ESE	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045
SE	0.000	0.091	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.136
SSE	0.000	0.409	0.182	0.000	0.000	0.000	0.000	0.000	0.000	0.591
S	0.000	0.318	0.318	0.091	0.000	0.000	0.000	0.000	0.000	0.728
SSW	0.000	0.182	0.773	0.000	0.000	0.000	0.000	0.000	0.000	0.955
SW	0.000	0.318	0.728	0.000	0.000	0.000	0.000	0.000	0.000	1.046
WSW	0.000	0.091	0.273	0.182	0.000	0.000	0.000	0.000	0.000	0.546
W	0.000	0.000	0.227	0.091	0.000	0.000	0.000	0.000	0.000	0.318
WNW	0.000	0.136	0.182	0.091	0.000	0.000	0.000	0.000	0.000	0.409
NW	0.000	0.045	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.136
NNW	0.000	0.182	0.637	0.136	0.000	0.000	0.000	0.000	0.000	0.955
SUBTOTAL	0.000	3.776	10.874	0.955	0.000	0.000	0.000	0.000	0.000	15.605

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2198
 TOTAL HOURS OF STABILITY CLASS F 343
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F 343
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2198
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2009/02/26

MEAN WIND SPEED = 2.03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Sequoyah Nuclear Plant

OCT 1, 2008 - DEC 31, 2008

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.045
NNE	0.000	0.045	0.591	0.000	0.000	0.000	0.000	0.000	0.000	0.637
NE	0.000	0.000	0.273	0.000	0.000	0.000	0.000	0.000	0.000	0.273
ENE	0.000	0.227	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.273
E	0.000	0.091	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.136
ESE	0.000	0.091	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.182
SE	0.000	0.182	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.273
SSE	0.000	0.136	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.227
S	0.000	0.227	0.182	0.000	0.000	0.000	0.000	0.000	0.000	0.409
SSW	0.000	0.000	0.318	0.000	0.000	0.000	0.000	0.000	0.000	0.318
SW	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.045
WSW	0.000	0.000	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.091
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.045
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.045
SUBTOTAL	0.000	1.001	2.002	0.000	0.000	0.000	0.000	0.000	0.000	3.003

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2198
 TOTAL HOURS OF STABILITY CLASS G 66
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G 66
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2198
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2009/02/26

MEAN WIND SPEED = 1.69

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Attachment 2.0

Deviations from ODCM Controls/Surveillance Requirements

Date	ODCM Requirement	Description of Deviation
March 13, 2008	1/2 2.2 Table 2.2-2 Item B.1	A tritium sample collected for U2 containment purge was discarded prior to completion of analysis. A second sample was collected during the purge and analyzed for closure of the permit. PER 140176
March 20, 2008	1/2 2.2 Table 2.2-2 Item B.1	Samples were collected and analyzed prior to U2 purge. The Noble gas was collected in a one liter gas marnelli. It analyzed using the wrong sample geometry. The error was caught and corrected on closure of the permit. PER 141139

Attachment 3.0

Radiation Monitors Inoperable for Greater than 30 days

No monitors inoperable greater than 30 days.