

Tennessee Valley Authority, Post Office Box 2000, Soddy- Daisy,
Tennessee 37384-2000

April 26, 2001

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

Gentlemen:

In the Matter of) Docket Nos. 50-3Tennessee
Valley Authority) 50-328
SEQUOYAH NUCLEAR PLANT - 2000 ANNUAL RADIOACTIVE EFFLUENT
RELEASE REPORT (ARERR)

Enclosed is the ARERR for the period of January 1 to
December 31, 2000. This report (Enclosure 1) is being
submitted in accordance with Sequoyah Technical
Specification (TS) 6.9.1.8.

In addition, in accordance with TS 6.1.14.3, a complete copy
of the Offsite Dose Calculation Manual (Enclosure 3) is
submitted with marked revisions implemented during calendar
year 2000. The Offsite Dose Calculation Manual also
requires that a Radiological Impact Assessment (Enclosure 2)
be submitted for the same reporting period.

Please direct questions concerning this issue to me at (423)
843-7170 or J. D. Smith at (423) 843-6672.

Licensing and Industry Affairs Manager

Enclosures
cc: See page 2

½

Printed on recycled paper
U.S. Nuclear Regulatory Commission
Page 2

April 26, 2001

cc (Enclosures)

Mr. R. W. Hernan, Project Manager
Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852-2739

NRC Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy-Daisy, Tennessee 37384-2000

Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsythe St., SW, Suite 23T85
Atlanta, Georgia 30323-3415

ENCLOSURE 1

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

SEQUOYAH NUCLEAR PLANT

2000
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SUPPLEMENTAL INFORMATION
2000

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, Iodine-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, Part

20

E1-i
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SUPPLEMENTAL INFORMATION
2000

(Standards for Protection Against Radiation), Appendix B, Table 2, Column 2, for radionuclides other than dissolved or entrained noble gases.

be limited to For dissolved or entrained noble gases, the concentration shall
2.0 E-04 microcuries/milliliter (~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:

than or equal a. Less than or equal to 1.5 mrem to the total body and less
to 5 mrem to any organ during any calendar quarter.

or equal to b. Less than or equal to 3 mrem to the total body and less than
10 mrem to any organ during any calendar year.

II. EFFLUENT CONCENTRATION LIMITS

A. Liquids

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

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

B. Gaseous

defined in *1. The maximum permissible dose rates for gaseous releases are
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.

half-lives greater b. Iodine-131, Iodine-133, tritium, and particulates with

than eight days dose rate at the unrestricted area boundary:

- Less than or equal to 1500 mrem/year to any organ.

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

E1-2
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SUPPLEMENTAL INFORMATION
2000

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. Therefore, the average beta and gamma energies (E) for gaseous effluents as described in Regulatory Guide 1.21, "Measuring, Evaluation, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," are not applicable.

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

1-131 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.

E1-3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SUPPLEMENTAL INFORMATION
2000

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.

V. BATCH	Value		Units
	1st Half	2nd Half	
A. Liquid (Radwaste only)			
1. Number of releases	59	96	Each
2. Total time period of releases	9527	12521	Minutes
3. Maximum time period of release	295	303	Minutes
4. Average time period of releases	161	130	Minutes
5. Minimum time period for release	43	1	Minutes
6. Average dilution stream flow during	17571	22123	CFS

E1-4

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 SUPPLEMENTAL INFORMATION
 2000

B. Gaseous (Batches only)	containment purges			
	containment vents, and waste decay tanks)			
1. Number of releases	75	80	Each	
2. Total time period of releases	27034	97191	Minutes	
3. Maximum time period for release	960	40536	Minutes	
4. Average time period for releases	360	1215	Minutes	
5. Minimum time period for release	4	10	Minutes	

VI.	ABNORMAL RELEASES Value		Units
	1st Half	2nd Half	
A. Liquid			
Number of Releases	0	0	

Total Activity Released	0.00E-01	0.00E-01	Ci
B. Gaseous			
Number of Releases	0	0	
Total Activity Released	0.00E-01	0.00E-01	Ci

E1-5
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
2000

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

A. Fission and		1st	2nd	3rd	4th		
Activation Products		Unit	Qtr	Qtr	Qtr	Qtr	%Error
<1 .8E+01	1. Total Released	Curies	9.47E-02	3.90E-02	2.69E-02	2.66E-02	
	2. Average diluted concentration during period	~Ci/ml	4.02E-07	5.98E-07	1.42E-07	4.48E-07	
	3. Percent of Applicable Limit	*	*	*	*		
B. Tritium							
<1.8E+01	1. Total Released	Curies	9.03E+02	7.48E+01	1.47E+02	5.57E+02	
	2. Average diluted concentration during period	~Ci/ml	3.82E-03	1.15E-03	3.94E-03	2.58E-03	
	3. Percent of Applicable Limit	*	*	*	*		
C. Dissolved and Entrained Gases							
7.32E-01	1. Total Released	Curies	3.30E-01	1.44E-02		1.46E+00	
<3.9E+01	2. Average diluted concentration during period	~Ci/ml	1.40E-06	2.20E-07	7.68E-06	3.40E-06	
	3. Percent of Applicable Limit	*	*	*	1.70E+00		
D. Gross Alpha							

0.00E-01	1. Total Released	Curies	0.00E-01	0.00E-01	0.00E-01
	<2.0E+01				
	E. Volume of Waste				
	Released	Liters	2.38E+06	8.39E+05	1.84E+06
<4.0E+00					2.43E+06
	F. Volume of Dilution				
	Water for Period	Liters	2.34E+08	6.44E+07	1.88E+08
2.13E+08	<1.1E+01				

*Applicable limits are expressed in terms of dose. See Tables 1 thru 4.

E1-6
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
2000
LIQUID EFFLUENTS - TOTAL PLANT DISCHARGE

G. Nuclide Summary (Note: Refer to Table A for ODCM nuclides reported as 0.00E-01)

Required by ODCM Others

Fission and Activation Products

Nuclide	Unit	Continuous Mode		Batch Mode		
		Quarter	Quarter	Quarter	Quarter	
		1st	2nd	1st	2nd	
1. Strontium-89	Ci	0.00E-01	0.00E-01	8.04E-05	0.00E-01	
2. Strontium-90	Ci	0.00E-01	0.00E-01	3.14E-05	0.00E-01	
3. Iron-55	Ci	0.00E-01	0.00E-01	2.40E-02	5.61E-03	
4. Manganese-54	Ci	0.00E-01	0.00E-01	7.99E-04	1.91E-04	
5. Cobalt-58	Ci	0.00E-01	0.00E-01	2.09E-02	1.21E-02	
6. Iron-59	Ci	0.00E-01	0.00E-01	1.09E-03	3.66E-04	
7. Cobalt-60	Ci	0.00E-01	0.00E-01	1.01E-02	2.78E-03	
8. Zinc-65	Ci	0.00E-01	0.00E-01	6.37E-05	0.00E-01	
9. Molybdenum-99	Ci	0.00E-01	0.00E-01	1.94E-05	0.00E-01	
10. Iodine-131	Ci		0.00E-01	0.00E-01	7.33E-04	0.00E-
01						
11. Cesium-134	Ci		0.00E-01	0.00E-01	2.32E-03	4.33E-
04						
12. Cesium-137	Ci		0.00E-01	0.00E-01	3.37E-03	8.23E-
04						
13. Cesium-138	Ci		0.00E-01	0.00E-01	0.00E-01	1.36E-
05						
14. Cerium-144	Ci		0.00E-01	0.00E-01	6.73E-04	1.81E-
04						
15. Antimony-125	Ci		0.00E-01	0.00E-01	9.37E-03	8.88E-
03						
16. Cobalt-57	Ci		0.00E-01	0.00E-01	2.49E-04	7.18E-
05						
17. Chromium-Si	Ci		0.00E-01	0.00E-01	3.46E-03	3.21E-
03						
18. Niobium-95	Ci		0.00E-01	0.00E-01	4.80E-04	9.81E-
04						

E1-7
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 2000

LIQUID EFFLUENTS - TOTAL PLANT DISCHARGE

Nuclide	Unit	Ci	Continuous Mode		Batch Mode		
			Quarter	Quarter	Quarter	Quarter	
			2nd	1st	2nd		
19.	Zirconium-95	Ci	0.00E-01	0.00E-01	3.62E-04		5.37E-
20.	Technetium-99m	Ci	0.00E-01	0.00E-01	1.94E-05		0.00E-
21.	Iodine-132	Ci	0.00E-01	0.00E-01	9.67E-04		0.00E-
22.	Tellurium-132	Ci	0.00E-01	0.00E-01	7.56E-04		0.00E-
23.	Antimony-124	Ci	0.00E-01	0.00E-01	7.81E-04		0.00E-
24.	Lanthanum-140	Ci	0.00E-01	0.00E-01	2.41E-04		0.00E-
25.	Sodium-24	Ci	0.00E-01	0.00E-01	3.955E-06	0.005E-01	
26.	Silver-110m	Ci	0.00E-01	0.00E-01	6.74E-03		9.06E-
27.	Ruthenium-103	Ci	0.00E-01	0.005E-01	2.065E-04		1.62E-
28.	Tin-113	Ci	0.00E-01	0.00E-01	2.31E-04		1.40E-
29.	Barium-140	Ci	0.00E-01	0.00E-01	6.26E-05		0.005E-
30.	Copper-64	Ci	0.00E-01	0.00E-01	3.11E-04		0.00E-
31.	Tellurium-129m	Ci	0.00E-01	0.00E-01	6.24E-03		8.60E-
Total for Period		Ci	0.005E-01	0.00E-01	9.475E-02	3.915E-02	

E1-8
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 2000
 LIQUID EFFLUENTS - TOTAL PLANT DISCHARGE

G. Nuclide Summary (Note: Refer to Table A for ODCM nuclide reported as 0.00E-0i)

Required by ODCMIOthers

Dissolved and Entrained Noble Gases

Nuclide	Unit	Continuous Mode		Batch Mode	
		Quarter	Quarter	Quarter	Quarter
		1st	2nd	1st	2nd
1.Xenon-133	Ci	0.00E-01	0.00E-01	3.17E-01	1.43E-02
2.Xenon-133m	Ci	0.00E-01	0.00E-01	1.41E-03	4.57E-05
3.Xenon-135	Ci	0.00E-01	0.00E-01	2.59E-04	0.00E-01
4.Xenon-131m	Ci	0.00E-01	0.00E-01	8.84E-03	0.00E-01
5.Krypton-85	Ci	0.00E-01	0.00E-01	2.15E-03	0.00E-01
6.Argon-41	Ci	0.00E-01	0.00E-01	2.11E-05	4.29E-06
Total for Period	Ci	0.00E-01	0.00E-01	3.30E-01	1.44E-02

2000
LIQUID EFFLUENTS - TOTAL PLANT DISCHARGE

G. Nuclide Summary (Note: Refer to Table A for ODCM nuclides reported as 0.00E-01)

Required by CDCMIOthers

Fission and Activation Products

Nuclide	Unit	Continuous Mode		Batch Mode		
		Quarter	Quarter	Quarter	Quarter	
		3rd	4th	3rd	4t~	
1. Strontium-89	Ci	0.00E-01	0.00E-01	2.74E-05	0.00E-01	
2. Strontium-90	Ci	0.00E-01	0.00E-01	9.92E-06	0.00E-01	
3. Iron-55	Ci	0.00E-01	0.00E-01	8.01E-03	7.59E-04	
4. Manganese-54	Ci	0.00E-01	0.00E-01	2.57E-04	5.06E-04	
5. Cobalt-58	Ci	0.00E-01	8.92E-04	4.47E-03	1.91E-02	
6. Iron-59	Ci	0.00E-01	0.00E-01	0.00E-01	3.61E-04	
7. Cobalt-60	Ci	0.00E-01	0.00E-01	4.87E-03	6.99E-03	
8. Zinc-65	Ci	0.00E-01	0.00E-01	7.99E-06	0.00E-01	
9. Ruthenium-103	Ci	0.00E-01	0.00E-01	5.96E-06	0.00E-01	
10. Iodine-131	Ci		0.00E-01	0.00E-01	2.80E-05	3.86E-
11. Cesium-134	Ci		0.00E-01	7.68E-03	1.21E-03	6.37E-
12. Cesium-137	Ci		0.00E-01	5.34E-03	2.30E-03	1.27E-
13. Rubidium-86	Ci		0.00E-01	0.00E-01	6.11E-05	0.00E-
14. Cerium-144	Ci		0.00E-01	0.00E-01	9.29E-05	8~42E-
15. Antimony-125	Ci		0.00E-01	0.00E-01	5.79E-03	1.61E-
16. Cobalt-57	Ci		0.00E-01	0.00E-01	7.79E-05	8.93E-
17. Chromium-Si	Ci		0.00E-01	0.00E-01	1.77E-05	3.75E-
18. Niobium-95	Ci		0.00E-01	0.00E-01	2.58E-04	2.46E-
19. Zirconium-95	Ci		0.00E-01	0.00E-01	2.68E-05	2.49E-

E1~0
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
2000
LIQUID EFFLUENTS - TOTAL PLANT DISCHARGE

Quarter	Continuous	Mode	Batch Mode
	Quarter	Quarter	Quarter

	Nuclide	Unit	3rd	4th	3rd	4th
04	20. Antimony-124	Ci	0.00E-01	0.00E-01	1.56E-04	4.38E-
04	21. Lanthanum-140	Ci	0.00E-01	0.00E-01	8.89E-5	1.70E-
03	22. Silver-ibm	Ci	0.00E-01	0.00E-01	2.24E-03	4.75E-
05	23. Barium-140	Ci	0.00E-01	0.00E-01	0~00E-01	2.43E-
06	24. Tellurium-132	Ci	0.00E-01	0.00E-01	4.52E-06	8.87E-
06	25. Tin-113	Ci	0.00E-01	0.00E-01	1.06E-05	6.52E-
	Total for Period		0.00E-01	1.39E-02	2.69E-02	7.22E-02

E1-li
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
2000
LIQUID EFFLUENTS - TOTAL PLANT DISCHARGE

G. Nuclide Summary (Note: Refer to Table A for ODCM nuclides reported as 0.00E-01)

Required by CDCM~Others

Dissolved and Entrained Noble Gases

Continuous Mode		Batch Mode	
Quarter	Quarter	Quarter	Quarter

Nuclide	Unit	3rd	4th	3rd	4th
1.Xenon-133	Ci	0.00E-01	0.00E-01	1.40E+00	7.04E-01
2.Xenon-133m	Ci	0.00E-01	0.00E-01	7.74E-03	4.70E-03
3.Xenon-135	Ci	0.00E-01	0.00E-01	1.02E-03	9.49E-04
4.Xenon-131m	Ci	0.00E-01	0.00E-01	2.57E-02	1.74E-02
5.Krypton-55	Ci	0.00E-01	0.00E-01	2.51E-02	4.37E-03
Total for Period	Ci	0.00E-01	0.00E-01	1.45E+00	7.32E-01

E1-12
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
2000

TABLE A
LIQUID "TYPICAL LLD" EVALUATION~~~

Nuclide	ODCM LLD	1 hr	8 hr	32 hr
Manganese-54	5.0E-07	3.36E-08	3.36E-08	3.375-08
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	4.645-08
Zinc-65	5.0E-07	2.95E-08	2.95E-08	2.965-08
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	1.925-08
Cesium-137	5.0E-07	3.87E-08	3.87E-08	3.875-08
Cerium-141	5.0E-07	2.80E-08	2.81E-08	2.875-08
Cerium-144	5.0E-06	1.11E-07	1.12E-07	1.125-07
Iodine-131	1.0E-06	2.28E-08	2.34E-08	2.555-08
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	4.195-08	4.365-08	4.98E-08
Xenon-133m	1.0E-05	1.42E-07	1.55E-07	2.13E-07
Xenon-135	1.0E-05	2.065-08	3.50E-08	2.17E-07
Xenon-138	1.0E-05	8.37E-06(3)		(3)
Nuclide		ODCM LLD		Tvoical LLD
Tritium	1.05-05			1 .2E-06
Gross Alpha	1 .0E-07			2.0E-08
Strontium-89190	5.0E-08			3.8E-08/1 .4E-08
Iron-55	1.0E-06			1.3E-08

NOTES:(1) LLD values are in ~Ci/rnI.

- (2. At is the time between sample collection and counting time.
- (3. TlAtooshort.

E1-13
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
2000

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
(GROUND LEVEL RELEASES)

Summation of All Releases	Unit	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	%Error
A. Noble Gases						
1.Total Released	Ci	7.35E+01	3.12E+01	2.48E+01	1.13E+02	<1.1E+01
2.Average Release						
Rate of Period	uCi/sec		9.35E+00	3.97E+01	3.12E+01	1 .42E+01
3.	Percent of Limit			%	*	* * *
B. Iodines						
1.Total Iodine-I	31 Ci	7.20E-05	0.00E-01		0.00E-01	8.42E-05
<1.3E+01						
2.Average Release						
Rate for Period	~Ci/Sec	9.16E-06	0.00E-01		0.00E-01	2.80E-03
3.	Percent of Limit			%	*	* * *
C. Particulates						
1.Particulates with half-lives >8 days	Ci	1 .63E-06	0.00E-01		0.00E-01	8.68E-06
<1 .6E+01						
2.Average Release						
Rate for Period	uCi~sec	2.07E-07	0.00E-01		0.00E-01	.09E-06
3. Percent of Limit	%		*	*	*	*
4. GrossAlpha	Ci	0.00E-01	0.()OE-01		0.00E-01	0.00E-01
<2.1E+01						
Radio-activity						
D. Tritium						
1.Total Release	Ci	2.25E+01	1.07E+01	1.15E+01	1.79E+01	<1.5E+01
2.Average Release						
Rate for Period	~Ci/sec		2.87E+00	.36E+00	1 .44E+00	2.25E+00
3. Percent of Limit	%		%	*	*	*

*Applicable limits are expressed in terms of dose. See Tables 5 thru 8.

E1-14
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 2000
 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
 (GROUND LEVEL RELEASES)

1. Noble Gases

Required by
 ODCMIOthers

	Nuclide	Unit	Continuous Mode		Batch Mode		
			Quarter	Quarter	Quarter	Quarter	
			1st	2nd	1st	2nd	
	1.krypton-88	Ci	0.00E-01	0.00E-01	2.45E-01	0.00E-01	
	2.Xenon-133	Ci	1.35E-02	1.27E-02	6.61E+01	2.93E+01	
01	3.	Xenon-133m	Ci	0.00E-01	0.00E-01	1.22E+00	4.26E-
01	4.	Xenon-135	Ci	9.69E-04	4.04E-03	3.42E+00	2.98E-
01	5.	krypton-85	Ci	0.00E-0i	0.00E-01	9.31E-01	2.97E-
01	6.	Argon-41	Ci	0.00E-01	0.00E-01	7.17E-01	5.17E-
01	7.	krypton-85m	Ci	0.00E-01	0.00E-011	.49E+01	0.00E-
01	8.	Xenon-131m	Ci	0.00E-01	0.00E-01	6.59E-01	3.65E-
	Total for Period			Ci	1.47E-02	1.67E-02	
7.35E+01	3.12E+01						
	2. Iodines						
	1. Iodine-131	Ci	7.20E-05	0.00E-01			
	2. Iodine-132	Ci	3.96E-04	0.00E-01			
	3. Iodine-133	Ci	0.00E-01	0.00E-01			
	Total for Period			Ci	4.68E-04	0.00E-01	

NOTE: Refer to Table B for ODCM nuclides reported as 0.00E-01.

E1-15
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 2000
 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
 (GROUND LEVEL RELEASES)

3. Particulates
 Required by
 ODCMIOthers

Nuclide	Unit	Continuous Mode	
		Quarter 1st	Quarter 2nd
1. Cobalt-58	Ci	1.63E-06	0.00E-01
Total for Period	Ci	1.63E-06	0.00E-01

NOTE: Refer to Table B for ODCM nuclides reported as 0.00E-01.

E1-16
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 2000
 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
 (GROUND LEVEL RELEASES)

1. Noble Gases
 Required by
 ODCMIOthers

Nuclide	Unit	Continuous Mode		Batch Mode	
		Quarter	Quarter	Quarter	Quarter
		3rd	4th	3rd	4th
1.Krypton-88	Ci	0.00E-01	0.00E-01	0.00E-01	8.22E-05
2.Xenon-133	Ci	8.23E-01	2.16E+00	2.21E+01	1.01E+02
3.Xenon-133m	Ci	0.00E-01	0.00E-01	2.03E-01	1.07E+00
4.Xenon-135	Ci	2.29E-01	2.27E-01	1.88E-01	6.38E-01
5.Xenon-138	Ci	0.00E-01	0.00E-01	0.00E-01	0.00E-01
6.Krypton-85	Ci	0.00E-01	0.00E-01	6.38E-01	1.04E+00
7.Argon-41	Ci	0.00E-01	0.00E-01	0.00E-01	1.57E-01
8.Krypton-85m	Ci	0.00E-01	0.00E-01	0.00E-01	8.81E-03
9.Xenon-131m	Ci	0.00E-01	0.00E-01	3.92E-01	6.71E+00
10.Xenon-135m	Ci	0.00E-01	0.00E-01	0.00E-01	0.00E-01
Total for Period	Ci	1.05E+00	2.39E+00	2.37E+01	1.11E+02

2. Iodines

1.Iodine-131	Ci	0.00E-01	8.42E-05
2.Iodine-133	Ci	0.00E-01	8.71E-07
Total for Period	Ci	0.00E-01	8.51E-05

NOTE: Refer to Table B for ODCM nuclides reported as 0.00E-01.

E1-1Y
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 2000

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES
 (GROUND LEVEL RELEASES)

3. Particulates
 Required by
 ODCMIOthers

Nuclide	Unit	Continuous Mode	
		Quarter	Quarter
		3rd	4th
1. Cobalt-58	Ci	0.00E-01	8.68E-06
Total for Period	Ci	0.00E-01	8.68E-06

NOTE: Refer to Table B for ODCM nuclides reported as 0.00E-01.

E1-18
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 2000

TABLE B
 GASEOUS "TYPICAL" LLD EVALUATION

Noble Gas		At121			
Nuclide	ODCM LLD	1 hr	1.5 hr		
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 SamnIe131			1 hr	24 hr	7.0 da
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-12	5.02E-13	7.49E-14	
Cobalt-60	1.0E-10	1.07E-12	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-12	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	1.00E-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 17.25E-12 3.1 SE-13 5.74E-14

- (1) LLD values are in uCi/mI.
- (2) At is the time between sample collection and counting time.
- (3) LLD based on sample time + 30 mm. sample to analysis.

Ei-19

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
2000

TABLE B

GASEOUS "TYPICAL" LLD EVALUATION

Nuclide	ODCM LLD	Typical LLD
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

NOTES: (1) LLD values are in uCi/cc.

- (2) At for noble gases is the time from sampling to analysis.
At for charcoal and particulate samples is the midpoint of sampling to analysis.

E1-20
 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 2000
 SOLID WASTE (RADIOACTIVE SHIPMENTS)

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

	12 Month UnitPeriod	Est. Tot. Error %
1. Type of Waste		
a. Spent Resins, Filter Sludges, Evaporator Bottoms, etc.	Ci None	m3 None N/A N/A
b. Dry Active Waste, Compressible Waste	m3	4.00E+01
+5.00E-01		
Contaminated Equipment, etc.	Ci 9.22E-01	+1 .00E-02
c. Irradiated Components, Control Rods, etc.	m3 None Ci None	N/A N/A
d. Other: Mechanical Filters	m3 None Ci None	None N/A N/A

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

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

	Curies	Percent
None	N/A	N/A

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

	Curies	Percent
1. Chromium-Si	7.58E-02	8.21
2. Iron-55	2.02E-01	21.88
3. Cobalt-58	4.13E-01	44.81
4. Cobalt-60	7.50E-02	8.14
5. Nickel-63	1.76E-02	1.91

6.	Zirconium-95	3.11E-02	3.37	
7.	Niobium-95	4.72E-02	5.12	
8.	Silver-110m	3.64E-03	3.90E-01	
9.	Cesium-134	1.58E-02	1.71	
10.	Cesium-137		1.51E-02	1.64

E1-21
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
2000
SOLID WASTE (RADIOACTIVE SHIPMENTS)

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

	C. Irradiated Components		Curies	Percent
	None		N/A	N/A
	d.		Other: Mechanical Filters	
Curies	Percent			
	None		N/A	N/A

3. Solid Waste Disposition

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

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

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

	Number of Shipments	Type	Quantity	Mode of
Transportation	Destination			
	74*	A-LSA	Motor Freight	Barnwell, SC

*74 of the shipments were shipped by a waste processor.

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			

	None	N/A	N/A	N/A
4.	Irradiated Fuel Shipments (Disposition)			
	Number of Shipments		TvPe Quantity	Mode of
Transportation	Destination			
	None	N/A	N/A	N/A
5.	Solidification of Waste			
	Was solidification performed? _____ NO			
	If yes, solidification media:			N/A

E1-22

ENCLOSURE 2

RADIOLOGICAL IMPACT ASSESSMENT REPORT

SEQUOYAH NUCLEAR PLANT

JANUARY - DECEMBER 2000

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 ODOM 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:

radiation,
- and -
Less than or equal to 5 mrad per quarter and 10 mrad per year (per reactor unit) for gamma
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 limit for doses to a member of the general public from radioactive material in liquid effluents released to unrestricted areas is:

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

The EPA 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:

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

E2-1

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 mIs (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.

E2-2

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 I through 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 'VA. The models that are used to estimate doses, as well as the parameters input to the models, are described in detail in the SQN ODOM.

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 471.0.

E2-3

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 (E. I. DuPont). 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 E. I. DuPont, 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 through 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 through 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 14.8 mR/quarter at onsite (at or near the site boundary) stations and approximately 13.50 mR/quarter at offsite stations, or approximately 1.30 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

E2-4

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 readings were 912, 470, and 201 mrem. Using these values, and subtracting an annual background value of 59 mrem/year, and multiplying by the ratio of the occupancy times, the external doses are 205, 104, and 65 mrem. The two highest TLD readings were located in an area near the RWSTs which are controlled as RCAs. Therefore, the highest dose to a member of the public inside the unrestricted area boundary is 65-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.

E2-5

Table I
Doses from Airborne Effluents
First Quarter

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
<u>External</u>				
Gamma Air	7.65E-03 mrad	5 mrad	0.153	N/950
Beta Air	1.63E-02 mrad	10 mrad	0.163	N/950
<u>Submersion</u>				
Total Body	5.02E-03 mrad	10 mrad	0.502	NNWI841
Skin	1.09E-02 mrad	10 mrad	0.109	NNWI841
<u>Organ Doses</u>				
ChildIThyroid	2.72E-02 mrem	7.5 mrem	0.363	NNWI841
ChildITotal Body	2.65E-02 mrem	7.5 mrem	0.353	NNW/841

Population Doses

Total Body Dose I .30E-01 man-rem
Maximum Organ Dose (organ) 1 .34E-01 man-rem (thyroid)

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/yr for natural background).

E2-6

Table 2
Doses from Airborne Effluents
Second Quarter

Individual Doses		Quarterly Dose	Quarterly Limit	Percent of Limit	Location
Pathway					Sector/Distance
External					
Gamma Air	3.24E-03 mrad	5 mrad	0.0648		NNW/841
Beta Air	7.31E-03 mrad	10 mrad	0.731		NNW/841
Submersion					
Total Body	1.78E-03 mrad	10 mrad	0.0178		NNW/841
Skin	3.85E-03 mrad	10 mrad	0.0385		NNW/841
Organ Doses					
Child/Thyroid	1.13E-02 mrem	7.5 mrem	0.151		NNW/841
Child/Total Body		1.13E-02 mrem			NNW/841

Population Doses

Total Body Dose 4.60E-02 man-rem

Maximum Organ Dose (organ) 4.60E-02 man-rem (thyroid, liver, bone, GI, 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/yr for natural background).

E2-7

Table 3
Doses from Airborne Effluents
Third Quarter

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
External				
Gamma Air	2.04E-03 mrad	5 mrad	0.048	S/i 570
Beta Air	5.23E-03 mrad	10 mrad	0.0523	S/i 570
Submersion				
Total Body	1.44E-03 mrad	10 mrad	0.0144	5/1 786
Skin	3.35E-03 mrad	10 mrad	0.0335	5/1 786
Organ Doses				
Child/Thyroid	6.26E-03 mrem	7~5 mrem	0.0835	SSW/2707
Child/Total Body	6.26E-03 mrem	7.5 mrem	0.0835	SSW/2707

Population Doses

Total Body Dose 4.90E-02 man-rem

Maximum Organ Dose (organ) 4.90E-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/yr for natural background)

E2-8

Table 4
Doses from Airborne Effluents
Fourth Quarter

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location	Distance
External					
Gamma Air	9.38E-03 mrad	5 mrad	0.187	SSW/1840	
Beta Air	2.82E-02 mrad	10 mrad	0.282	85W/I	840
Submersion					
Total Body	6.32E-03 mrad	10 mrad	0.0623	SSW/2134	
Skin	1.57E-02 mrad	10 mrad	0.157	½ SSW/2134	
Organ Doses					
Child/Thyroid	2.42E-02 mrem	7.5 mrem	0.322	NNWI84I	
Child/Total Body		2.35E-02 mrem		7.5 mrem	0.313

NNWI841

Population Doses

Total Body Dose	1 .59E-01 man-rem
Maximum Organ Dose (organ)	1 .65E-01 man-rem (thyroid)

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/yr for natural background).

E2-9

Table 5
Doses from Liquid Effluents
First Quarter

Individual Doses (mrem)

Age Group	Organ	Dose	Quarterly Limit	Percent of Limit
Adult	Total Body	7.40E-03	1.5 mrem	<1 %
Child	Liver	9.30E-03	5 mrem	<1 %
Child	Thyroid	6.0E-03	5 mrem	<1 %

Average Riverflow past SQN (cubic feet per second): 17,682

Population Doses

Total Body Dose 5.30E-01 man-rem

Maximum Organ Dose (organ) 5.3E-01 man-rem (Bone, GIT, Liver, Thyroid, 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/yr for natural background).

E2-10

Table 6
Doses from Liquid Effluents
Second Quarter

Individual Doses (mrem)				
Age Group	Organ	Dose	Quarterly Limit	Percent of Limit
Adult	Total Body	1.10E-03		1.5 mrem <1 %
Teen	GIT	1.50E-03	5 mrem	<1 %
Child	Thyroid	7.50E-04	5 mrem	< 1 %

Average Riverflow past SON (cubic feet per second): 17,460

Population Doses

Total Body Dose 6.10E-02 man-rem
Maximum Organ Dose (organ) 6.50E-02 man-rem (GIT)

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/yr for natural background).

E2-11

Table 7
Doses from Liquid Effluents
Third Quarter

Individual Doses (mrem)

Age Group	Organ	Dose	Quarterly Limit	Percent of Limit
Child	Total Body	4.40E-03	1.5 mrem	< 1 %
Child	Liver	5.40E-03	5 mrem	<1 %
Child	Thyroid	4.10E-03	5 mrem	<1 %

Average Riverflow past SQN (cubic feet per second): 23,394

Population Doses

Total Body Dose 3.70E-01 man-rem

Maximum Organ Dose (organ) 3.70E-01 man-rem (Liver, Kidney, Lung, Bone, GIT,Thyroid)

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/yr for natural background).

E2-12

Table 8
Doses from Liquid Effluents
Fourth Quarter

Individual Doses (mrem)

Age Group	Organ	Dose	Quarterly Limit	Percent of Limit
Adult	Total Body	1.40E-02	1.5 mrem	<1 %
Teen	Liver	1.80E-02	5 mrem	< 1 %
Child	Thyroid	4.20E-03	5 mrem	<1 %

Average River flow past SQN (cubic feet per second): 20,852

Population Doses

Total Body Dose 3.40E-01 man-rem

Maximum Organ Dose (organ) 3.60E-01 man-rem (Liver)

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/yr 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)					
6.32E-03	Total body air submersion		5.02E03	1 .78E-03	1 .44E-03
02	Critical organ dose (air)		2.65E-02	1.13E-02	6.26E-03 2.35E-
02	Total body dose (liquid)		7.40E-03	1.10E-03	4.40E-03 1.40E-
	Maximum organ dose (liquid)	9.30E-03	1 .50E-03	5.40E-03	1 .80E-02
	Direct Radiation Dose	0.00E-00	0~00E-00	0.00E-00	0.00E-00
	Total	4.82E-02	1~57E-02	1.75E-02	6.1BE-02
01	Cumulative Total Dose ~al body or any other organ) mrem 1.43E-				
		Annual Dose Limit (mrem) 25			
		Percent of Limit 0.6 %			
	Total body air submersion	Thyr~	Dose	(mren~	
			5.02E-03	1 .78E-03	.44E-03 6.32E-03
	Thyroid dose (airborne)		2.72E-02	1.13E-02	6.26E-03 2.42E-02
	Total body dose (liquid)		7.40E-03	1.10E-03	4.40E-03 1.40E-02
	Thyroid dose (liquid)	6.80E-03	7.50E-04	4.10E-03	4.20E-03
	Direct Radiation Dose	0.00E-00	0.00E-00	0.00E-00	0.00E-00
	Total	4.64E-02	1.49E-02	1.62E-02	4.87E-02
1.26E-01	Cumulative Total Dose (Thyroid) mrem				
		Annual Dose Limit (mrem) 75			
		Percent of Limit <.1 %			

E2-14

Attachment 1.0

Joint Frequency Distribution Tables

A1
 JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION

FOR

STABILITY CLASS A (DELTA T<=-1.9 CIBO M)

Sequoyah Nuclear Plant

		JAN 11 2000 - MAR 31, 2000								
WIND DIRECTION		WIND SPEED(MPH)								
		CALN	0.6-1.4	1.5-3.4	3~S-5.4	5.5-				
7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.S	TOTAL					
	N	0.000	0.000	0.000	0.000	0.104	0.363	0.000	0.000	
0.000	0.466									
	NNF	0.000	0.000	0.000	0.000	1.101	1.088	0.000	0.000	
0.000	2.270									
	NE	0.000	0.000	0.052	0.414	0.516	0.259	0.000	0.000	
0.000	1.243									
	ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000									
	E	0.000	0.000	0.000	0.000	0.000	0.0000~000		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	0.052	0.000	0.000	0.000	0.000	
0.000	0.052									
	SSE	0.000	0.000	0.000	0.000	0.000	0.104	0.000	0.000	
0.000	0.104									
		0.000	0.000	0.000	0.000	0.104	0.259	0.000	0.000	
0.000	0.363									
	55W	0.000	0.000	0.000	0.000	0.414	0.259	0.000	0.000	
0.000	0.673									
	SN	0.000	0.000	0.000	0.104	0.673	0.104	0.000	0.000	
0.000	0.680									
	WSN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000									
	N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000									
	NNN	0.000	0.000	0.000	0.000	0.052	0.000	0.000	0.000	
0.000	0.052									
	NW	0.000	0.000	0.000	0.000	0.104	0.052	0.000	0.000	
0.000	0.155									
	NNN	0.000	0.000	0.000	0.000	0.000	0.207	0.000	0.000	
0.000	0.207									
	SUBTOTAL	0.000	0.000	0.052	0.570	3.159	2.693	0.000	0.000	
0.000	6.473									
						TOTAL NOURS OF VALID STABILITY OBSERVATIONS	2168			
						TOTAL NOURS OF STABILITY CLASS A	141			
						TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A				
125							TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY			
OBSERVATIONS							1931			
						TOTAL HOURS CALN	0			

NETFOROLDOICAL FACILITY: S~q:~o~ah N:~clear Plani:
STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 20000526

WEAN WIND SPEED = 7.31

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

	WNN	0.000	0.000	0.000	0.000	0.104	0.104	0.000	0.000
0.000	0.207								
	SUBTOTAL	0.000	0.000	0.155	1.243	2.330	1.295	0.000	0.000
0.000	5.023								
	TOTAL HOURS OF VALID STABILITY OBSERVATIONS							2168	
	TOTAL HOURS OF STABILITY CLASS B							104	
	TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B								
97									
	TOTAL HOURS CE VALID WIND DIRECTION-WIND SPEED-STABILITY								
OBSERVATIONS	1931								
	TOTAL HOURS CALM							0	

METEOOROLOICAL FACILITY: SequoVaN NiAclear Pla~t
 STASILYIY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WINO SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 20000526
 MEAN HIND SPEED 6.38

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

A2

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<--1.5 C/bc

N)

S~q~oyah N]Clear Plant

JAN 1, 2DOD - WAR 31, 2DDD

WIND		WIND SPEED(MPH)							
DIRECTION	CALN	D.S-1.4	1.5-3.4	3.5-5.4	TOTAL				
5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5					
0.0DD	0.88D	0.DDO	D.ODO	D.D52	D.DOO	D.570	D.259	D.ODO	D.000
0.ODO	0.880	D.000	0.000	0.052	0.311	0.460	0.D52	D.000	D.000
D.0DD	0.518	D.DDD	D.DOO	D.207	D.1D4	D.2D7	D.ODO	D.000	D.DOD
D.00D	0.104	D.DDO	D.DOO	D.1D4	D.DDO	0.0DD	0.ODO	0.DDO	0.000
0.0OD	0.D52	0.0DD	D.DDO	D.DDO	0.D52	D.0DD	0.0DD	D.ODO	0.DOO
0.0OD	0.000	0.0DD	0.DDO	D.DDD	D.DDO	0.0DD	0.0DD	0.DDO	0.DDO
0.000	0.104	0.0DD	0.DDO	0.DDD	0.052	0.OOD	D.052	0.ODO	0.DDD
0.000	0.052	0.OOD	0.0DD	0.000	0.052	D.000	0.000	0.000	0.000
0.000	0.518	0.000	0.000	0.052	0.155	0.259	0.052	0.000	0.000
0.000	0.880	0.000	0.000	0.052	0.414	0.311	0.104	0.000	0.000
0.000	0.207	0.000	0.000	0.000	0.155	0.052	0.000	0.000	0.000
0.000	0.104	0.000	0.000	0.000	0.052	0.000	0.052	0.000	0.000
0.000	0.155	0.000	0.000	0.000	0.104	0.052	0.000	0.000	0.000
0.000	0.052	0.000	0.000	0.000	0.000	0.052	0.000	0.000	0.000

0.000	NW	0.000	0.000	0.000	0.052	0.052	0.052	0.000	0.000
0.000	0.155								
0.000	NNW	0.000	0.000	0.000	0.104	0.155	0.155	0.000	0.000
0.000	0.414								
0.000	SUBTOTAL	0.000	0.000	0.518	1.105	2.175	0.777	0.000	0.000
0.000	S.075								
	TOTAL HOURS OF VALID STABILITY OBSERVATIONS							2118	
	TOTAL HOURS OF STABILITY CLASS C							113	
	TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C								
98									
	TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY								
OBSERVATIONS	1931								
	TOTAL HOURS CALN							0	

NETEOROLOGICAL FACILITY: Sequoia 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: 20000521

WEAN WIND SPEED = 5.79

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

A3

JDINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTIDN EDR

STABILTTY CLASS D (-1.5< DELTA T<=-0.5 CITDO

N)

S~quoyah N~clea~ Plan~

WI ND		JAN 1, 2DDO - WAR 31, 2DOD							
DIRECTION		WIND SPEED(NPN)							
5.5-7.4	7.5-12.4	CALN	0.8-1.4	1.5-3.4	3.5-5.4	>=24.5	TOTAL		
0.000	5.645	0.000	0.052	0.621	1.761	2.330	0.880	0.000	0.000
0.000	5.593	D.OOD	D.OOD	D.829	1.~D9	1.101	1.864	0.ODO	0.000
0.000	1.805	0.000	0.052	0.829	0.518	0.155	0.052	0.000	0.000
0.000	0.259	0.000	0.000	0.207	0.052	0.000	0.000	0.000	0.000
0.000	0.311	0.000	0.104	0.207	0.000	0.000	0.000	0.000	0.000
0.ODO	0.259	0.000	0.052	D.207	0.000	D.000	0.000	0.000	0.000
0.000	0.207	0.000	0.000	0.207	0.000	0.000	0.000	0.000	0.000
0.000	0.829	0.000	0.104	0.414	0.207	0.052	0.052	0.000	0.000
0.000	2.538	0.000	0.104	0.880	0.880	0.311	0.363	0.000	0.000
0.000	6.525	0.000	0.052	1.295	2.841	1.918	0.821	0.000	0.000
0.000	3.366	0.000	0.000	0.880	1.916	0.518	0.052	0.000	0.000
0.000	0.880	0.000	0.052	0.363	0.259	0.104	0.104	0.000	0.000
0.000	0.873	0.000	0.000	0.155	0.207	0.155	0.155	0.000	0.000
0.000	0.984	0.000	0.000	0.104	0.383	0.311	0.207	0.000	0.000

	NW	0.000	0.000	0.052	0.363	0.932	0.363	0.000	0.000
0.000	1.709								
	NNW	0.000	0.052	0.311	1.295	1.988	1.502	0.000	0.000
0.000	5.127								
	SUBTOTAL	0.000	0.621	7.561	12.170	9.943	6.214	0.000	0.000
0.000	36.510								
	TOTAL HOURS OF VALID STABILITY OBSERVATIONS							2168	
	TOTAL HOURS OF STABILITY CLASS 0							806	
705	TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS 0								
	TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1931							
	TOTAL HOURS CALM							0	
	WETSOROLOOICAL FACILITY. Sequcy~h Nuclear Pla~t								
	STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 WETERS								
	WIND SPEED AND DIRECTION WEASURED AT 9.73 NETER LEVEL								

DATE PRINTED: 20000526
WEAN HIND SPEED 5.23

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED WUWBERS

A4

~O1NT PERCENTAGE FREQUENCIES OF WINO

SPEED BY WINO DIRECTION FOR

STABILITY CLASS S ~0~5< DELTA T<= 1.5 CIODO

M)

Seq'~nYah Nuclaar Plant

JAN 1, 2000 - MAR 31, 2000

WINO		WINO SPEEO(MPN)							
DIRECTIJN		CALM	0.1-1.4	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	TOTAL				
0.000	4.039	0.000	0.414	1.502	1.105	0.518	0.000	0.000	0.000
0.000	4.039	0.000	0.259	2.279	0.984	0.510	0.000	0.000	0.000
0.000	0.725	0.000	0.207	0.311	0.207	0.000	0.000	0.000	0.000
0.000	0.259	0.000	0.104	0.155	0.000	0.000	0.000	0.000	0.000
0.000	0.052	0.000	0.000	0.052	0.000	0.000	0.000	0.000	0.000
0.000	0.414	0.000	0.311	0.104	0.000	0.000	0.000	0.000	0.000
0.000	0.250	0.000	0.155	0.104	0.000	0.000	0.000	0.000	0.000
0.000	0.777	0.000	0.104	0.104	0.155	0.207	0.207	0.000	0.000
0.000	3.521	0.000	0.311	0.932	1.191	0.311	0.777	0.000	0.000
0.000	4.972	0.000	0.259	1.813	2.071	0.121	0.207	0.000	0.000
0.000	3.388	0.000	0.104	1.348	1.709	0.104	0.104	0.000	0.000
0.000	0.570	0.000	0.052	0.414	0.104	0.000	0.000	0.000	0.000
0.000	0.414	0.000	0.000	0.311	0.052	0.052	0.000	0.000	0.000
0.000	0.518	0.000	0.000	0.207	0.259	0.052	0.000	0.000	0.000
0.000	0.777	0.000	0.052	0.414	0.207	0.052	0.052	0.000	0.000
0.000	1.295	0.000	0.155	0.829	0.259	0.000	0.052	0.000	0.000

SUBTOTAL 0.000 2.481 10.875 8.804 2.434 1.398 0.000 0.000
 0.000 25.997
 TOTAL NOURS OF VALID STABILITY OBSERVATIONS 2168
 TOTAL NOURS OF STABILITY CLASS E 559
 TOTAL NOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E
 502
 TOTAL NOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 1931
 TOTAL NOURS CALM 0

METEOROLOGICAL FACILITY: Sequnyat N'~claa~ Plant
 STABILITY CLASS ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 20000521

MEAN WIND SPEED = 3.18

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

A5

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS F 1.5~ DELTA T<= 4~D C/1DO

M)

S~q~oyah Nuclear Plarf:

JAN 1, 2000 - MAR 31~ 2000

WIND		WIND SPEED(NPN)							
DIRECTION	CALN	0.6-1.4	1.5-3.4	3.5-5.4	>--24.5	TOTAL			
5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4						
0.000	1.657	0.000	0.259	1.139	0.258	0.000	0.000	0.000	0.000
0.000	4.298	0.000	0.021	3.418	0.259	0.000	0.000	0.000	0.000
0.000	1.191	0.000	0.466	0.725	0.000	0.000	0.000	0.000	0.000
0.000	0.311	0.000	0.155	0.155	0.000	0.000	0.000	0.000	0.000
0.000	0.207	0.000	0.104	0.104	0.000	0.000	0.000	0.000	0.000
0.000	0.311	0.000	0.259	0.052	0.000	0.000	0.000	0.000	0.000
0.000	0.363	0.000	0.155	0.207	0.000	0.000	0.000	0.000	0.000
0.000	0.621	0.000	0.259	0.311	0.052	0.000	0.000	0.000	0.000
0.000	0.829	0.000	0.000	0.829	0.000	0.000	0.000	0.000	0.000
0.000	0.880	0.000	0.052	0.725	0.104	0.000	0.000	0.000	0.000
0.000	1.450	0.000	0.000	0.932	0.518	0.000	0.000	0.000	0.000
0.000	0.052	0.000	0.000	0.052	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.052	0.000	0.000	0.052	0.000	0.000	0.000	0.000	0.000
0.000	0.052	0.000	0.000	0.052	0.000	0.000	0.000	0.000	0.000

A6

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS 0 (DELTA T > 4.0 0/100 N)

Se~JoYah Nuclear Plant

JAN 1, 2000 - MAR 31, 2000

WIND		WIND SPEED(MPH)					TOTAL		
DIRECTION	CALN	0.8-1.4	1.5-3.4	3.5-5.4	>=24.5				
5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4						
0.000	N	0.000	0.000	0.000	0.000	0.000	0.000	0.0000.000	
0.000	NNE	0.016	0.311	2.330	0.000	0.000	0.000	0.0000~000	
2.657	NE	0.006	0.259	0.673	0.000	0.000	0.000	0.0000.000	
0.938	ENE	0.003	0.363	0.207	0.000	0.000	0.000	0.0000.000	
0.573		0.002	0.207	0.052	0.000	0.000	0.000	0.0000.000	
0.261	SE	0.003	0.363	0.104	0.000	0.000	0.000	0.0000~000	
0.469	SE	0.002	0.363	0.000	0.000	0.000	0.000	0.000	
0.000	0.365	0.004	0.518	0.207	0.000	0.000	0.000	0.000	
0.000	0.729	0.008	0.311	0.932	0.000	0.000	0.000	0.000	
0.000	1.250	0.006	0.000	0.932	0.000	0.000	0.000	0.000	
0.000	0.938	0.002	0.052	0.207	0.104	0.000	0.000	0.000	
0.000	0.364	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.001	0.000	0.104	0.000	0.000	0.000	0.000	
0.000	0.104								

SUBTOTAL 0.052 2.745 5.749 0.104 0.000 0.000 0.000 0.000
 0.000 8.648
 TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2168
 TOTAL HOURS OF STABILITY CLASS G 189
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS 0
 187
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 1931
 TOTAL HOURS CALM 1

NETEOROLOICAL FACILITY: Saqunych 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: 20000526

MEAN WIND SPEED = 1.79

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

0.000	NW	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.000
0.000	0.092								
0.000	NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000								
0.000	SUBTOTAL	0.000	0.000	0.046	2.116	3.496	1.610	0.000	0.000
0.000	7.268								
	TOTAL HOURS OF VALID STABILITY OBSERVATIONS							2175	
	TOTAL HOURS OF STABILITY CLASS A							158	
158	TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A								
	TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY								
OBSERVATIONS	2174								
	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 MAASURED AT 9.73 METER LEVEL

DATE PRINTED: 20000814

MEAW WIND SPEED = 6.38

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NDNBERS

A8

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9 < DELTA T <= -1.7 CILDO

M)

Sequoyah Nuclear Plant

APR 1, 2000 - JUN 30~ 2000

WIND DIRECTION		WIND SPEED (MPH)							
5.5-7.4	7.5-12.4	CALM	0.6-1.4	1.5-3.4	3.5-5.4	>=24.5	TOTAL		
0.000	0.046	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000
0.000	0.506	0.000	0.000	0.000	0.138	0.138	0.230	0.000	0.000
0.000	0.506	0.000	0.000	0.092	0.276	0.138	0.000	0.000	0.000
0.000	0.092	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000
0.000	0.046	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.230	0.000	0.000	0.046	0.092	0.046	0.046	0.000	0.000
0.000	0.736	0.000	0.000	0.000	0.368	0.230	0.138	0.000	0.000
0.000	1.978	0.000	0.000	0.138	0.966	0.828	0.046	0.000	0.000
0.000	0.782	0.000	0.000	0.230	0.506	0.046	0.000	0.000	0.000
0.000	0.184	0.000	0.000	0.000	0.184	0.000	0.000	0.000	0.000

0.000	W	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000
0.000	0.046								
0.000	WNW	0.000	0.000	0.000	0.046	0.000	0.046	0.000	0.000
0.000	0.092								
0.000	NW	0.000	0.000	0.000	0.000	0.000	0.184	0.000	0.000
0.000	0.184								
0.000	NNW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000
0.000	0.046								
0.000	SUBTOTAL	0.000	0.000	0.598	2.714	1.472	0.690	0.000	0.000
0.000	5.474								

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2175
 TOTAL HOURS OF STABILITY CLASS B 119
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS 5

119

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 2174
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.2S AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 20000814

MEAN WIND SPEED = 5.38

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

A9

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 CIBO

M)

Sequo~ah Nuclear Plant

APR 1, 2000 - JUN 30 2000

WIND		WIND SPEED (MPH)							
DIRECTION		CALM	0.6-1.4	1.5-3.4	3.5-5~4	TOTAL			
5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5					
0.000	0.506	0.000	0.000	0.000	0.230	0.184	0.092	0.000	0.000
0.000	0.736	0.000	0.000	0.138	0.138	0.368	0.092	0.000	0.000
0.000	0.460	0.000	0.000	0.000	0.414	0.046	0.000	0.000	0.000
0.000	0.092	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.138	0.000	0.000	0.138	0.000	0.000	0.000	0.000	0.000
0.000	0.230	0.000	0.000	0.000	0.184	0.000	0.046	0.000	0.000
0.000	0.736	0.000	0.000	0.138	0.276	0.276	0.046	0.000	0.000
0.000	1.932	0.000	0.000	0.322	1.104	0.368	0.138	0.000	0.000
0.000	1.012	0.000	0.000	0.276	0.460	0.230	0.046	0.000	0.000
0.000	0.092	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000

	W	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000
0.000	0.046								
	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	0.046	0.046	0.000	0.000
0.000	0.092								
	HNW	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000
0.000	0.092								
	SUBTOTAL	0.000	0.000	1.150	2.852	1.564	0.690	0.000	0.000
0.000	6.256								

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2175
 TOTAL HOURS OF STABILITY CLASS C 136
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C

136

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 2174
 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: 20000814

MEAN WIND SPEED = 5.04

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

A10
 JOINT PERCENTAGE FREQUENCIES OF WIND
 STABILITY CLASS 0 (-1.5< DELTA T<=-0.5 Cibo

SPEED BY WIND DIRECTION FOR
 M)

Sequoyah Nuclear Plant

APR 1, 2000 - JUN 30, 2000

WIND DIRECTION		WIND SPEED (MPH)					TOTAL	
5.5-7.4	7.5-12.4	CALM	0.6-1.4	1.5-3.4	3.5-5.4	>=24.5		
0.000	3.910	0.000	0.000	1.104	1.472	1.012	0.322	0.000
0.000	4.922	0.000	0.046	1.564	2.116	0.874	0.322	0.000
0.000	1.196	0.000	0.000	0.828	0.322	0.046	0.000	0.000
0.000	0.322	0.000	0.046	0.276	0.000	0.000	0.000	0.000
0.000	0.276	0.000	0.000	0.184	0.092	0.000	0.000	0.000
0.000	0.230	0.000	0.000	0.230	0.000	0.000	0.000	0.000
0.000	0.598	0.000	0.138	0.322	0.138	0.000	0.000	0.000
0.000	1.334	0.000	0.092	0.782	0.414	0.000	0.046	0.000
0.000	4.508	0.000	0.046	1.656	2.024	0.644	0.092	0.046
0.000	7.866	0.000	0.046	2.254	3.910	1.150	0.506	0.000
0.000	3.634	0.000	0.000	1.610	1.334	0.552	0.138	0.000
0.000	0.966	0.000	0.046	0.690	0.184	0.000	0.046	0.000

0.000	0.460	W	0.000	0.092	0.230	0.000	0.092	0.046	0.000	0.000
0.000	0.368	WNW	0.000	0.000	0.046	0.046	0.138	0.138	0.000	0.000
0.000	1.840	NW	0.000	0.046	0.368	0.460	0.690	0.276	0.000	0.000
0.000	2.162	NNW	0.000	0.000	0.506	0.552	0.552	0.552	0.000	0.000
0.000	34.591	SUBTOTAL	0.000	0.598	12.649	13.063	5.750	2.484	0.046	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2175
 TOTAL HOURS OF STABILITY CLASS D 753
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D

752

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 2174
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.89 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 20000814

MEAN WIND SPEED = 4.26

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM DNROONDED NIMPERS

0.000	4.937	SW	0.015	0.368	3.174	1.012	0.276	0.092	0.000	0.000
0.000	1.847	WSW	0.007	0.322	1.242	0.230	0.000	0.046	0.000	0.000
0.000	0.646	W	0.002	0.138	0.414	0.092	0.000	0.000	0.000	0.000
0.000	0.692	WW	0.002	0.184	0.322	0.138	0.046	0.000	0.000	0.000
0.000	0.691	NW	0.001	0.092	0.230	0.230	0.092	0.046	0.000	0.000
0.000	2.583	NNW	0.008	0.368	1.426	0.736	0.046	0.000	0.000	0.000
0.000	30.497	SUBTOTAL	0.092	4.278	17.479	6.256	1.702	0.690	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2175
 TOTAL HOURS OF STABILITY CLASS E 663
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E
 663
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 2174
 TOTAL HOURS CALM 2

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: 20000814

MEAN WIND SPEED = 2.96

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

A12

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS F C 1.5< DELTA T<-- 4.0 CibO

M)

Sequoyah Nuclear Plant

APR 1, 2000 - JUN 30 2000

WIND		WIND SPEED (MPH)						
DIRECTION		CALM	0.6-1.4	1.5-3.4	3.5-3.4	>=24.5	TOTAL	
5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4					
0.000	3.139	0.011	0.460	2.622	0.046	0.000	0.000	0.000
	NHE	0.011	0.966	1.978	0.000	0.000	0.000	0.000
0.000	2.955							
	NE	0.003	0.690	0.230	0.000	0.000	0.000	0.000
0.000	0.923							
	ENE	0.001	0.276	0.046	0.000	0.000	0.000	0.000
0.000	0.323							
	E	0.000	0.046	0.000	0.000	0.000	0.000	0.000
0.000	0.046							
	ESE	0.001	0.184	0.046	0.000	0.000	0.000	0.000
0.000	0.231							
	SE	0.001	0.230	0.000	0.000	0.000	0.000	0.000
0.000	0.231							
	SSE	0.003	0.506	0.322	0.000	0.000	0.000	0.000
0.000	0.831							
	S	0.002	0.414	0.276	0.000	0.000	0.000	0.000
0.000	0.692							
	SSW	0.004	0.230	0.782	0.046	0.000	0.000	0.000
0.000	1.062							
	SW	0.003	0.000	0.828	0.138	0.000	0.000	0.000
0.000	0.969							

0.000	WSW	0.001	0.046	0.184	0.000	0.000	0.000	0.000	0.000
0.000	0.231								
0.000	W	0.001	0.046	0.184	0.046	0.000	0.000	0.000	0.000
0.000	0.277								
0.000	WNW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000
0.000	0.046								
0.000	NW	0.001	0.092	0.230	0.184	0.000	0.000	0.000	0.000
0.000	0.507								
0.000	NNW	0.003	0.184	0.598	0.000	0.000	0.000	0.000	0.000
0.000	0.785								
0.000	SUETOTAL	0.046	4.370	8.372	0.460	0.000	0.000	0.000	0.000
0.000	13.247								
		TOTAL HOURS OF VALID STABILITY OBSERVATIONS						2175	
		TOTAL HOURS OF STABILITY CLASS F						288	
288		TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F							
		TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY							
OBSERVATIONS		2174							
		TOTAL HOURS CALM						1	

METEOROLOGICAL FACILITY: Sequoia 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: 20000814

MEAN WIND SPEED = 1.80

NOTE TOTALS AND SURTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

0.000	WSW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000
0.000	0.046								
0.000	W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000								
0.000	WWW	0.000	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	0.046	0.000	0.000	0.000	0.000	0.000
0.000	0.046								
0.000	NNW	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.046								
0.000	SUBTOTAL	0.000	1.150	1.472	0.046	0.000	0.000	0.000	0.000
0.000	2.668								

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2175
 TOTAL HOURS OF STABILITY CLASS G 58
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G

58

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 2174
 TOTAL HOURS CALM 0

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

DATE PRINTED: 20000814

MEAN WIND SPEED = 1.63

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

0.000	0.350	W	0.000	0.000	0.000	0.117	0.117	0.117	0.000	0.000
0.000	0.175	Wsw	0.000	0.000	0.000	0.058	0.058	0.058	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	0.234	NNW	0.000	0.000	0.000	0.000	0.117	0.117	0.000	0.000
0.000	9.632	SUBTOTAL	0.000	0.000	0.409	5.779	3.152	0.292	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 1733
 TOTAL HOURS OF STABILITY CLASS A 171
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A

165

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 1713
 TOTAL HOURS CALSS 0
 METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION HEASURED AT 9.73 NOETER LEVEL

DATE PRINTED: 20001121

NEAN WIND SPEED = 5.20

NOTE TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

0.000	0.175	W	0.000	0.000	0.000	0.117	0.058	0.000	0.000	0.000
0.000	0.117	WNW	0.000	0.000	0.000	0.117	0.000	0.000	0.000	0.000
0.000	0.058	NW	0.000	0.000	0.000	0.058	0.000	0.000	0.000	0.000
0.000	0.350	NNW	0.000	0.000	0.000	0.058	0.058	0.234	0.000	0.000
0.000	6.188	SURTOTAL	0.000	0.000	0.759	3.327	1.751	0.350	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 1733
 TOTAL HOURS OF STABILITY CLASS B 106
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B

106

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 1713
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: Sequoyah Nuclear Plant
 STABILITY BASED ON DELTA-T BETWEEN 8.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 20001121

MEAN WIND SPEED = 4.99

NOTE: TOTALS AND SURTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

0.000	0.000	W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.058	WNW	0.000	0.000	0.000	0.000	0.058	0.000	0.000	0.000
0.000	0.117	NW	0.000	0.000	0.000	0.117	0.000	0.000	0.000	0.000
0.000	0.117	NNW	0.000	0.000	0.000	0.058	0.058	0.000	0.000	0.000
0.000	7.005	SUBTOTAL	0.000	0.000	1.226	4.086	1.518	0.175	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 1733
 TOTAL HOURS OF STABILITY CLASS C 121
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C

120

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 1713

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: 20001121

MEAH WIND SPEED = 4.59

NOTE TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

A17

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5 < DELTA T <= -0.5 CIBO

M)

Sequcyah Nuclear Plant

		JUL 1, 2000 - SEP 12, 2000								
WIND		WIND SPEED (MPH)								
DIRECTION	CALM	0.6-1.4	1.5-3.4	3.5-5.4	>=24.5	TOTAL				
5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4							
	N	0.000	0.058	0.992	1.576	1.051	0.0000~000	0.000		
0.000	3.678									
	NNE	0.000	0.000	1.343	3.094	1.343	0.175	0.000		
0.000	5.954									
	NE	0.000	0.000	1.109	0.642	0.058	0.000	0.058		
0.000	1.968									
	ENE	0.000	0.058	0.234	0.117	0.000	0.000	0.000		
0.000	0.409									
	E	0.000	0.000	0.117	0.058	0.000	0.000	0.000		
0.000	0.175									
	ESE	0.000	0.000	0.175	0.058	0.000	0.000	0.000		
0.000	0.234									
	SE	0.000	0.175	0.175	0.117	0.000	0.000	0.000		
0.000	0.467									
	SEE	0.000	0.058	0.292	0.409	0.234	0.000	0.000		
0.000	0.992									
	S	0.000	0.058	1.985	2.335	0.058	0.000	0.000		
0.000	4.437									
	SSW	0.000	0.175	2.335	2.860	0.175	0.000	0.000		
0.000	5.546									
	SW	0.000	0.175	1.693	0.584	0.175	0.000	0.000		
0.000	2.627									
	WSW	0.000	0.058	0.992	0.234	0.058	0.000	0.000		
0.000	1.343									
	W	0.000	0.058	0.525	0.350	0.058	0.000	0.000		
0.000	0.992									

	WNW	0.000	0.058	0.350	0.292	0.058	0.000	0.000	0.000
0.000	0.759								
	NW	0.000	0.000	0.117	0.234	0.058	0.000	0.000	0.000
0.000	0.409								
	NNW	0.000	0.000	0.350	0.234	0.234	0.058	0.000	0.000
0.000	0.876								
	SUBTOTAL	0.000	0.934	12.785	13.193	3.561	0.234	0.058	0.000
0.000	30.765								

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 1733
 TOTAL HOURS OF STABILITY CLASS D 531
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D

527

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 1713

TOTAL HOURS CALH 0
 METEOROLOGICAL FACILITY: SequoiaI~ 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: 20001121

MEAN WIND SPEED = 3.75

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED ~JMBERS

A18

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 CIBO

M)

Sequoyah Nuclear Plant

JUL 1, 2000 - SEP 12 2000

WIND DIRECTION		WIND SPEED (MPH)					TOTAL		
5.5-7.4	7.5-12.4	CALM	0.6-1.4	1.5-3.4	3.5-5.4	>=24.5			
0.000	7.564	0.033	0.8764~437	2.160	0.058	0.000	0.000	0.000	
0.000	4.573	0.020	0.584	2.627	1.343	0.000	0.000	0.000	
0.000	0.352	0.002	0.000	0.350	0.000	0.000	0.000	0.000	
0.000	0.117	0.001	0.000	0.117	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.293	0.001	0.117	0.117	0.058	0.000	0.000	0.000	
0.000	0.235	0.001	0.234	0.000	0.000	0.000	0.000	0.000	
0.000	0.764	0.005	0.234	0.525	0.000	0.000	0.000	0.000	
0.000	2.526	0.016	0.759	1.751	0.000	0.000	0.000	0.000	
0.000	5.519	0.032	0.992	4.145	0.350	0.000	0.000	0.000	
0.000	4.165	0.020	0.701	2.510	0.876	0.000	0.058	0.000	
0.000	2.113	0.012	0.292	1.576	0.175	0.058	0.000	0.000	

0.000	W	0.007	0.409	0.759	0.058	0.058	0.000	0.000	0.000
0.000	1.292								
0.000	WNW	0.008	0.642	0.701	0.117	0.000	0.000	0.000	0.000
0.000	1.468								
0.000	NW	0.004	0.117	0.584	0.058	0.000	0.000	0.000	0.000
0.000	0.763								
0.000	NNW	0.013	0.467	1.635	0.117	0.000	0.000	0.000	0.000
0.000	2.231								
0.000	SUBTOTAL	0.175	6.421	21.833	5.312	0.175	0.058	0.000	0.000
0.000	33.975								

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 1733
 TOTAL HOURS OF STABILITY CLASS E 591
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E

582

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 1713

TOTAL HOURS CALM 3

METEOROLOGICAL FACILITY: Segtiao~an 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: 20001121
 MEAN WIND SPEED 2.35

NOTE TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NDMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

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

M)

Sequoyah Nuclear Plant

JUL 1, 2000 - SEP 12, 2000

WIND DIRECTION	CAI~1	WIND SPEED (NPH)					TOTAL	5~5-
		0.6-1.4	1.5-3.4	3.3-5.4	5~5-	5~5-		
7.4	7.5-12.4	12.5-18.4	16.5-24.4	>=24.5				
N	0.086	0.584	3.678	0.117	0.000	0.000	0.000	0.000
0.000	4.464							
NNE	0.063	0.759	2.393	0.000	0.000	0.000	0.000	0.000
0.000	3.216							
NE	0.006	0.292	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.296							
ENE	0.006	0.234	0.056	0.000	0.000	0.000	0.000	0.000
0.000	0.296							
E	0.001	0.056	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.060							
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000							
SE	0.001	0.058	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.060							
SEE	0.001	0.000	0.058	0.000	0.000	0.000	0.000	0.000
0.000	0.060							
S	0.008	0.175	0.234	0.000	0.000	0.000	0.000	0.000
0.000	0.417							
SEW	0.009	0.117	0.350	0.000	0.058	0.000	0.000	0.000
0.000	0.535							
SW	0.011	0.000	0.523	0.000	0.000	0.000	0.000	0.000
0.000	0.536							
WEW	0.008	0.117	0.292	0.000	0.000	0.000	0.000	0.000
0.000	0.417							
W	0.001	0.000	0.058	0.117	0.000	0.000	0.000	0.000
0.000	0.176							

	WNN	0.001	0.058	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.060								
	NW	0.006	0.117	0.292	0.000	0.000	0.000	0.000	0.000
0.000	0.417								
	NNW	0.022	0.234	0.876	0.000	0.000	0.000	0.000	0.000
0.000	1.131								
	SUBTOTAL	0.234	2.602	8.615	0.234	0.058	0.000	0.000	0.000
0.000	12.142								

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 1733
 TOTAL HOURS OF STABILITY CLASS F 208
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F
 208

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 1713
 TOTAL HOURS CAUH 4
 METEOROLOGICAL FACILITY: Sequoyan 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: 20001121

MEAN WIND SPEED = 1.90

NOTE TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NDMEERE

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	0.282	SUBTOTAL	0.000	0.058	0.175	0.058	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 1733
 TOTAL HOURS OF STABILITY CLASS G 5
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G 5
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 1713

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: 20001121

MEAN WIND SPEED = 2.16

NOTE TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

A21
 JOINT PERCENTAGE FREQUENCIES OF WIND
 SPEED BY WIND DIRECTION FOR
 STABILITY CLASS A (DELTA T<=-1.9 CIBO N)
 Seqiloyan Nuclear Plant

		OCT 1, 2000 - DEC 31, 2000							
WIND		WIND SPEED (MPH)							
DIRECTION		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	19.5-24.4	>=24.5	TOTAL				
	H	0.000	0.000	0.000	0.000	0.000	0.144	0.000	0.000
0.000	0.144								
	HNE	0.000	0.000	0.000	0.000	0.144	0.192	0.000	0.000
0.000	0.337								
	NE	0.000	0.000	0.000	0.048	0.048	0.000	0.000	0.000
0.000	0.096								
	ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000								
	B	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	0.048	0.048	0.000	0.000	0.000
0.000	0.096								
	SSW	0.000	0.000	0.000	0.000	0.192	0.000	0.000	0.000
0.000	0.192								
	SW	0.000	0.000	0.000	0.096	0.337	0.000	0.000	0.000
0.000	0.433								
	WSW	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000
0.000	0.048								

0.000	W	0.000	0.000	0.000	0.000	0.000	0.192	0.000	0.000
0.000	0.192								
0.000	'NNN	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.000
0.000	0.048								
0.000	NW	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000
0.000	0.048								
0.000	HNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000								
0.000	SUBTOTAL	0.000	0.000	0.000	0.241	0.866	0.529	0.000	0.000
0.000	1.635								

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS A 34
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A

34

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 2079

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: 20010216

MEAN WIND SPEED = 6.90

NOTE TOTALS AND SUBTOTALS ARE OBTAINED FROM ONROUNDED NUMBERS

A22

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS 8 (-1.9 < DELTA T <= -1.7 CIBO

M)

SequoYah Nuclear Plant

OCT 1, 2000 - DEC 31, 2000

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			
N	0.000	0.000	0.000	0.000	0.000	0.144	0.000	0.0000~000	0.144
NNE	0.000	0.000	0.000	0.241	0.289	0.289	0.000	0.000	0.818
NE	0.000	0.000	0.048	0.096	0.000	0.000	0.000	0.000	0.144
ENE	0~000	0.000	0.000	0.000	0~000	0.000	0.000	0.000	0.000
E	0~000	0.000	0.000	0.096	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
SE	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
S	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.048
SSW	0.000	0.000	0.000	0.337	0.192	0.000	0.000	0.000	0.529
SW	0.000	0.000	0.048	0.241	0.096	0.000	0.000	0.000	0.385
WSW	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.048

0.000	5	0.000	0.000	0.000	0.144	0.000	0.000	0.000	0.000
0.000	0.144								
0.000	SSW	0.000	0.000	0.048	0.673	0.048	0.000	0.000	0.000
0.000	0.770								
0.000	SW	0.000	0.000	0.241	0.337	0.144	0.000	0.000	0.000
0.000	0.722								
0.000	WSW	0.000	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	0.048	0.048	0.000	0.000
0.000	0.096								
0.000	WNH	0.000	0.000	0.000	0.144	0.048	0.000	0.000	0.000
0.000	0.192								
0.000	NW	0.000	0.000	0.000	0.048	0.241	0.096	0.000	0.000
0.000	0.385								
0.000	NNW	0.000	0.000	0.000	0.048	0.048	0.000	0.000	0.000
0.000	0.096								
0.000	SUBTOTAL	0.000	0.000	0.577	2.116	1.058	0.866	0.000	0.000
0.000	4.618								

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS C 101
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C

96

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 2079

TOTAL HOURS CALN 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: 20010216
 MEAN WIND SPEED 5.61

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUBERS

A24

JOINT PERCENTAGE FREQUENCIES OF WIND

SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5 < DELTA T <= -0.5 CILDO

M)

Sequoyah Nuclear Plant

OCT 1, 2000 - DEC 31, 2000

WIND DIRECTION	WIND SPEED (MPH)					TOTAL		
	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4			
N	0.192	1.587	1.395	2.020	0.866	0.000	0.000	
NNE	0.000	0.192	3.078	2.982	1.924	1.876	0.096	
NE	0.000	0.096	1.395	0.722	0.048	0.144	0.000	
ENE	0.000	0.048	0.433	0.000	0.000	0.000	0.000	
E	0.000	0.000	0.192	0.000	0.000	0.000	0.000	
ESE	0.000	0.096	0.241	0.000	0.000	0.000	0.000	
SE	0.000	0.048	0.289	0.048	0.000	0.000	0.000	
SSE	0.000	0.144	0.433	0.048	0.000	0.000	0.000	
S	0.000	0.144	1.154	1.924	0.625	0.096	0.000	
SSW	0.000	0.192	2.165	3.127	1.491	0.385	0.000	
SW	0.000	0.048	1.443	1.491	0.385	0.096	0.000	
WSW	0.000	0.048	0.625	0.337	0.337	0.096	0.000	
W	0.000	0.144	0.577	0.241	0.289	0.144	0.000	
WNW	0.000	0.144	0.192	0.241	0.433	0.241	0.000	
W	0.000	1.251						

0.000	2.374	SW	0.017	0.241	1.539	0.337	0.000	0.241	0.000	0.000
0.000	1.647	WSW	0.012	0.337	0.914	0.192	0.048	0.144	0.000	0.000
0.000	0.725	W	0.004	0.144	0.241	0.192	0.144	0.000	0.000	0.000
0.000	0.388	WNW	0.003	0.048	0.289	0.048	0.000	0.000	0.000	0.000
0.000	1.694	NW	0.010	0.241	0.866	0.529	0.048	0.000	0.000	0.000
0.000	2.474	NNW	0.020	0.385	1.780	0.192	0.096	0.000	0.000	0.000
0.000	27.754	SUBTOTAL	0.192	5.243	15.103	5.435	1.251	0.529	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS E 599
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 577

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2079
 TOTAL HOURS CALM 4
 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: 20010216

MEAN WIND SPEED = 2.77

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 CIBO M)

Sequoyah Nuclear Plant

		OCT 1, 2000 - DEC 31, 2000							
WIND DIRECTION		WIND SPEED(NPH)							
		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	TOTAL				
0.000	2.321	N	0.060	0.385	1.780	0.096	0.000	0.000	0.0000~000
0.000	6.424	NNE	0.170	2.020	4.137	0.096	0.000	0.000	0.000
0.000	1.977	NE	0.053	1.154	0.770	0.000	0.000	0.000	0.000
0.000	0.643	ENE	0.017	0.577	0.048	0.000	0.000	0.000	0.000
0.000	0.346	E	0.009	0.337	0.000	0.000	0.000	0.000	0.000

	ESE	0.017	0.625	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.643								
	SE	0.009	0.337	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.346								
	SSE	0.017	0.577	0.048	0.000	0.000	0.000	0.000	0.000
0.000	0.643								
	5	0.020	0.241	0.481	0.000	0.000	0.000	0.000	0.000
0.000	0.741								
	SSW	0.027	0.289	0.673	0.000	0.000	0.000	0.000	0.000
0.000	0.989								
	SW	0.015	0.192	0.337	0.000	0.000	0.000	0.000	0.000
0.000	0.544								
	WSW	0.001	0.048	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.049								
	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	0.004	0.048	0.096	0.000	0.000	0.000	0.000	0.000
0.000	0.146								
	NEW	0.012	0.241	0.192	0.000	0.000	0.000	0.000	0.000
0.000	0.445								
	SUBTOTAL	0.433	7.071	8.562	0.192	0.000	0.000	0.000	0.000
0.000	16.258								

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
TOTAL HOURS OF STABILITY CLASS F 345
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F

338

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
OBSERVATIONS 2079

TOTAL HOURS ~ 9
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: 20010216

MEAN WIND SPEED = 1.59

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

0.000	0.000	SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.049	WSW	0.001	0.048	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	WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.049	NW	0.001	0.048	0.000	0.000	0.000	0.000	0.000
0.000	0.000	NHW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	3.848	SUBTOTAL	0.048	2.549	1.203	0.048	0.000	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS G 82
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G

80

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY
 OBSERVATIONS 2079

TOTAL HOURS CAI~4 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: 20010216

MEAN WIND SPEED = 1.29

NOTE TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

A28

Attachment 2.0

Deviations from ODCM Controls/Surveillance Requirements

None

A2

Attachment 3.0

Radiation Monitors Inoperable for Greater than 30 days

None

