



Sequoyah Nuclear Plant, Post Office Box 2000, Soddy Daisy, Tennessee 37384

April 25, 2022

10 CFR 50.4
10 CFR 50.36a
10 CFR 50, Appendix I
10 CFR 72.44(d)(3)

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555-0001

Sequoyah Nuclear Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-77 and DPR-79
NRC Docket Nos. 50-327, 50-328, and 72-034

Subject: **Annual Radioactive Effluent Release Report for 2021 Monitoring Period**


Enclosed is the Annual Radioactive Effluent Release Report (ARERR) for the period of January 1 to December 31, 2021. This report (enclosure) is being submitted in accordance with the respective Sequoyah Nuclear Plant (SQN), Units 1 and 2, Technical Specification (TS) 5.6.2 and Certificate of Compliance for Spent Fuel Storage Casks Nos. 1014 and 1032, Chapter 5.

Offsite Dose Calculation Manual (ODCM), Section 5.2 requires that a Radiological Impact Assessment be submitted with the ARERR for the same reporting period. The assessment is included in the report. There were no changes to the ODCM during the reporting period.

There are no new regulatory commitments contained in this letter. If you have any questions concerning this matter, please contact Mr. Jeffrey Sowa at (423) 843-8129.

Respectfully,

Marshall,
Thomas B.

 Digitally signed by Marshall,
Thomas B.
Date: 2022.04.25 12:40:27
-04'00'

Thomas Marshall
Site Vice President
Sequoyah Nuclear Plant

Enclosure: Annual Radioactive Effluent Release Report, Sequoyah Nuclear Plant, January - December 2021

U.S. Nuclear Regulatory Commission
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cc (Enclosure):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Sequoyah Nuclear Plant
NRR Project Manager - Sequoyah Nuclear Plant

ENCLOSURE

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

SEQUOYAH NUCLEAR PLANT

JANUARY - DECEMBER 2021

Sequoyah Nuclear Power Plant

Tennessee Valley Authority

Annual Radioactive Effluent Release Report

2021



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I. Introduction

The Annual Radioactive Effluent Release Report covering the operation of both units is submitted pursuant to Sequoyah Nuclear Plant Technical Specification 5.6.2 and Offsite Dose Calculation Manual 5.2

II. Supplemental Information

A. Regulatory Limits

1. Gaseous Effluents

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:

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.

Iodines, tritium and particulates with half-lives greater than eight days

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

Dose to a member of the public due to Iodines, tritium and particulates with half-lives greater than eight days

- Less than or equal to 7.5 mrem to any organ during any calendar quarter.
- Less than or equal to 15 mrem to any organ during any calendar year.

Air dose due to noble gases

- 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.
- 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.

2. Liquid Effluents

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 2.0E-04 microcuries/milliliter ($\mu\text{Ci/ml}$) total activity.

The dose or dose commitment to a member of the public from radioactivity in liquid effluents released to unrestricted areas shall be limited to less than or equal to 1.5 mrem to the total body during any calendar quarter, less than or equal to 5 mrem to any organ

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

B. Limitation on Dose Rate

1. Gaseous Effluents

Concentration limits for gaseous releases are met through compliance with the maximum permissible dose rates for gaseous releases as defined in plant Offsite Dose Calculation Manual (ODCM). (These values are used as applicable limits for gaseous effluents.)

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.

Iodines, tritium and particulates with half-lives greater than eight days

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

2. Liquid Effluents

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 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 effluents.)

C. Average Energy

Sequoyah Nuclear Plant'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 rates 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.

D. Measurements & Approximations of Total Radioactivity

Radioactivity measurements performed in support of the Sequoyah Nuclear Plant ODCM meet the Lower Limit of Detection requirements given in ODCM Tables 2.2-1 and 2.2-2.

1. Gaseous Effluents

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

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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.

Iodines and Particulates in Gaseous Releases

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 the sampling period.

Also, particulate and charcoal samples are taken from the shield and auxiliary building exhausts once per 24 hours for 2 days following startup, shutdown, or a rated thermal power change exceeding 15 percent within one 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.

Carbon-14 in Gaseous Releases

The Carbon-14 production and effluent source term estimates were based on EPRI methodology provided in EPRI Report 1021106, "Estimation of Carbon-14 in Nuclear Power Plant Gaseous Effluents," dated December 2010. It was determined that 21.6 curies of Carbon-14 is generated annually at Sequoyah Nuclear Plant. However, only 98% is considered released as gas and only the carbon dioxide form (20%) of that is used in the gaseous dose calculations

2. 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)

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Total gamma isotopic activity and tritium concentrations are determined monthly on one composite sample each from the condensate system, and the turbine building sump. The tritium value is applied to releases over the month. Total gamma isotopic activity concentration for Units 1 and 2 steam generator blowdown is determined 3 times a week. In addition to ODCM Table 2.2-1, tritium concentrations are determined 3 times a week, averaged for the month, and applied to releases over the month. The total activity of the continuous release is determined by summing each nuclide's concentration and multiplying by the total volume discharged.

E. Batch Releases

1. Gaseous

| Units | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|-------|-------------|-------------|-------------|-------------|
|-------|-------------|-------------|-------------|-------------|

1. Gaseous

| | | | | | |
|-------------------------------------|---------|----------|----------|----------|----------|
| 1. Number of Batch Releases | | 29 | 29 | 30 | 25 |
| 2. Total duration of batch releases | minutes | 2.09E+04 | 5.63E+04 | 1.63E+04 | 5.64E+04 |
| 3. Maximum batch release duration | minutes | 9.76E+02 | 3.18E+04 | 8.13E+02 | 3.63E+04 |
| 4. Average batch release duration | minutes | 7.20E+02 | 1.94E+03 | 5.42E+02 | 2.26E+03 |
| 5. Minimum batch release duration | minutes | 2.50E+01 | 3.60E+01 | 7.70E+01 | 2.90E+01 |

2. Liquid

| Units | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|-------|-------------|-------------|-------------|-------------|
|-------|-------------|-------------|-------------|-------------|

1. Liquids

| | | | | | |
|-------------------------------------|---------|----------|----------|----------|----------|
| 1. Number of Batch Releases | | 29 | 49 | 40 | 48 |
| 2. Total duration of batch releases | minutes | 4.90E+03 | 7.62E+03 | 6.45E+03 | 6.51E+03 |
| 3. Maximum batch release duration | minutes | 1.98E+02 | 1.90E+02 | 1.93E+02 | 1.79E+02 |
| 4. Average batch release duration | minutes | 1.69E+02 | 1.56E+02 | 1.61E+02 | 1.36E+02 |
| 5. Minimum batch release duration | minutes | 1.20E+02 | 1.14E+02 | 1.10E+02 | 9.90E+01 |

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F. Abnormal Releases

In calendar year 2021 there were no abnormal releases.

G. Non-routine, Planned Discharges

In calendar year 2021 there were no non-routine planned discharges.

H. Radioactive Waste System Treatment Changes

In calendar year 2021 there were no changes to the radwaste system or the process control program.

I. Land Use Census Changes

In calendar year 2021 there were no changes to the land use census.

J. Effluent Monitoring Instrument Inoperability > 30 Days

In calendar year 2021 there were no effluent monitoring instruments inoperable > 30 days.

K. Effluent Monitoring Equipment Sample Deviation

| Date | Description of Deviation |
|------------------------|--|
| 5/6/2021 CR#1692579 | <p>On 5/6/21 at 0941 Operations entered ODCM non-conformance 1.1.2 actions C, D, and L due to condenser vacuum pumps being started while bypassing the 1-RM-90-119 and 1-RM-90-99 rad monitors. OPS notified Chemistry and at 1515 had placed the ODCM actions in the LCO tracker in eSOMS. Due to plant conditions the rad monitors remain in bypass.</p> <p>On 5/7/21 at approximately 1230, Chemistry supervision discovered during log review that compensatory sampling had not been performed since the entry into the ODCM actions. The applicable action for Chemistry is action D in the ODCM which is to perform a noble gas sample once every 12 hours while in non-compliance. Upon discovery a sample was immediately obtained at 1245 and analyzed which makes a total of 2 missed ODCM samples since the non-conformance was declared.</p> <p>A Chemistry department standing order was issued to require shift technicians to validate and enter the status of radiation monitors in the eSOMS Chemistry logs and later reporting on the status of radiation monitors during the Operations turnover on a shiftly frequency.</p> |

L. Offsite Dose Calculation Manual Changes

In calendar year 2021 there were no changes to the Offsite Dose Calculation Manual.

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M.Groundwater Monitoring and Program (NEI 07-07)

Monitoring Wells

Sequoyah Nuclear Plant started investigating 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 tanks (RWSTs) and inspection of drain lines. In addition to the one on-site Radiological Environmental Monitoring Program (REMP) groundwater monitoring well, SQN also has 29 non-REMP monitoring wells to support monitoring the onsite groundwater plume and for the presence or increase of radioactivity. SQN updated the number of wells in 2019 to better monitor the onsite groundwater. These wells are sampled periodically for tritium.

The tritium concentrations obtained in 2021 from these non-REMP wells are listed below. Initial and follow up analyses for the semi-annual sampling procedure indicated no gamma activity. Tritium fluctuation in Well 47i continues to be observed (ref. CR#1677302) and is consistent with seasonal variation due to sources from previously documented legacy releases. No leaks to site groundwater are currently present.

| Well ID | Date | Tritium (pC/L) | Date | Tritium (pC/L) |
|---------|------------------|----------------|------------------|----------------|
| W9 | 1/12/2021 0:00 | < 1.380E+02 | 4/6/2021 10:35 | < 1.870E+02 |
| | 7/13/2021 0:00 | < 1.660E+02 | 10/27/2021 11:20 | < 2.470E+02 |
| W10 | 1/14/2021 0:00 | 3.78E+03 | 3/4/2021 12:50 | 3.40E+03 |
| | 4/7/2021 13:20 | 3.98E+03 | 7/15/2021 15:20 | 1.80E+03 |
| | 10/28/2021 14:20 | 1.90E+03 | --- | --- |
| W11 | 1/12/2021 0:00 | < 1.360E+02 | 4/7/2021 12:45 | < 2.060E+02 |
| | 7/13/2021 14:45 | < 1.620E+02 | 10/26/2021 11:55 | < 2.510E+02 |
| W12 | 1/14/2021 0:00 | 1.17E+03 | 3/4/2021 11:50 | 8.67E+02 |
| | 4/7/2021 9:55 | 1.12E+03 | 7/14/2021 15:25 | 7.15E+02 |
| | 10/28/2021 14:50 | 8.77E+02 | --- | --- |
| W13 | 1/12/2021 0:00 | < 1.400E+02 | 4/7/2021 9:15 | < 1.960E+02 |
| | 7/13/2021 13:50 | < 1.980E+02 | 10/26/2021 10:40 | < 2.500E+02 |
| W15 | 1/13/2021 0:00 | < 1.660E+02 | 3/4/2021 13:35 | < 2.440E+02 |
| | 4/7/2021 14:05 | < 2.070E+02 | 7/14/2021 14:50 | 2.45E+02 |
| | 10/28/2021 13:30 | < 1.950E+02 | --- | --- |
| W16 | 1/13/2021 0:00 | Dry | 3/4/2021 15:45 | 3.73E+02 |
| | 4/6/2021 9:50 | 6.26E+02 | 8/6/2021 11:05 | 6.54E+02 |
| | 10/27/2021 15:53 | Dry | --- | --- |
| W18 | 1/13/2021 0:00 | 4.30E+02 | 4/6/2021 12:15 | 4.72E+02 |
| | 7/14/2021 11:45 | 3.98E+02 | 10/28/2021 12:05 | 3.73E+02 |
| W24 | 4/5/2021 11:45 | < 1.920E+02 | 10/28/2021 10:05 | < 2.070E+02 |
| W25 | 4/5/2021 12:20 | < 1.960E+02 | 10/26/2021 15:55 | < 2.450E+02 |
| W26 | 4/5/2021 13:00 | < 1.940E+02 | 10/26/2021 15:25 | < 2.510E+02 |

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| | | | | |
|------|------------------|-------------|------------------|-------------|
| W27 | 4/7/2021 0:00 | 4.15E+02 | 10/27/2021 13:50 | 3.01E+02 |
| W28 | 4/6/2021 15:05 | < 1.950E+02 | 10/27/2021 12:10 | < 2.480E+02 |
| W36 | 1/12/2021 0:00 | < 1.370E+02 | 4/7/2021 8:45 | < 1.960E+02 |
| | 7/13/2021 13:10 | < 1.610E+02 | 10/26/2021 12:20 | < 2.490E+02 |
| W37 | 4/5/2021 13:50 | < 1.950E+02 | 10/26/2021 14:45 | < 2.480E+02 |
| W38 | 1/14/2021 0:00 | 3.00E+02 | 4/5/2021 15:15 | 3.45E+02 |
| | 7/15/2021 11:25 | 2.39E+02 | 10/27/2021 13:10 | 2.94E+02 |
| W39 | 1/12/2021 0:00 | < 1.370E+02 | 4/6/2021 9:10 | < 1.880E+02 |
| | 7/13/2021 11:55 | < 1.710E+02 | 10/27/2021 10:35 | < 2.410E+02 |
| W40 | 4/6/2021 13:40 | < 1.870E+02 | 10/25/2021 13:40 | < 2.480E+02 |
| W41 | 4/6/2021 14:25 | < 1.950E+02 | 10/25/2021 14:40 | < 2.470E+02 |
| W42 | 1/12/2021 0:00 | < 1.400E+02 | 4/6/2021 13:00 | < 1.940E+02 |
| | 7/14/2021 10:10 | < 1.630E+02 | 10/25/2021 15:25 | < 2.470E+02 |
| W43 | 1/13/2021 0:00 | < 1.320E+02 | 4/7/2021 14:40 | < 2.020E+02 |
| | 7/14/2021 10:50 | < 2.070E+02 | 10/26/2021 13:10 | < 2.510E+02 |
| W44 | 1/13/2021 0:00 | < 2.660E+02 | 4/8/2021 9:10 | < 2.060E+02 |
| | 7/15/2021 13:20 | < 2.360E+02 | 10/27/2021 15:00 | 2.72E+02 |
| W45i | 1/13/2021 0:00 | 2.43E+02 | 4/8/2021 10:20 | 3.03E+02 |
| | 7/15/2021 12:40 | 3.81E+02 | 10/7/2021 14:30 | < 1.970E+02 |
| W45s | 1/13/2021 0:00 | 9.26E+02 | 4/8/2021 9:45 | 1.65E+03 |
| | 7/15/2021 12:15 | 9.92E+02 | 10/27/2021 15:55 | Dry |
| W46i | 1/14/2021 0:00 | 7.04E+02 | 4/7/2021 11:10 | 5.58E+02 |
| | 7/14/2021 14:05 | 2.96E+02 | 10/28/2021 11:20 | 5.65E+02 |
| W46s | 1/14/2021 0:00 | < 1.680E+02 | 4/7/2021 10:40 | < 2.060E+02 |
| | 7/14/2021 13:30 | 1.45E+02 | 10/26/2021 13:45 | < 2.480E+02 |
| W47i | 1/14/2021 0:00 | 2.21E+04 | 3/4/2021 15:20 | 1.86E+04 |
| | 4/8/2021 12:05 | 1.38E+04 | 7/15/2021 14:35 | 2.32E+04 |
| | 10/28/2021 15:45 | 2.15E+04 | --- | --- |
| W47s | 1/14/2021 0:00 | 8.68E+03 | 3/4/2021 14:35 | 9.80E+03 |
| | 4/8/2021 11:30 | 3.41E+03 | 7/15/2021 14:05 | 9.44E+03 |
| | 10/28/2021 15:25 | 1.48E+03 | --- | --- |
| W48 | 1/13/2021 0:00 | 1.61E+03 | 4/6/2021 11:20 | 1.27E+03 |
| | 7/14/2021 12:45 | 1.26E+03 | 10/28/2021 12:50 | 1.20E+03 |

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Doses from I-131 Water Ingestion Pathway

The REMP requirements as specified in Table 3.12-1 from NUREG 1301, "Offsite Does Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors," 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. 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 is calculated. The evaluation confirms that the drinking water pathway dose from I-131 was less than the 1 mrem limit and that the performance of the I-131 specific analysis is not required for SQN REMP drinking water samples.

| | Units | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Total |
|-----------------------------|----------|----------------|----------------|----------------|----------------|-----------|
| I-131 Ci | 0.00E+01 | 3.070E-06 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 3.070E-06 |
| Child / Thyroid (mrem) | 0.00E+01 | 3.20E-07 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 3.20E-07 |
| Population / Thyroid (mrem) | 0.00E+01 | 1.10E-05 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 1.10E-05 |

N. Errata/Corrections to Previous ARERRs

No corrections needed to previous ARERRs.

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III. Gaseous Effluents

Table 1-A Gaseous Effluents - Summation of all Releases

| Units | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Total | Error % |
|-------|-------------|-------------|-------------|-------------|-------|---------|
|-------|-------------|-------------|-------------|-------------|-------|---------|

A. Fission and Activation Gases

| | | | | | | | |
|--|---------|----------|----------|----------|----------|----------|-----|
| 1. Total Release | Curies | 1.63E-01 | 1.45E+00 | 1.98E-01 | 2.57E-01 | 2.06E+00 | 11% |
| 2. Average Release Rate for Period | uCi/sec | 2.10E-02 | 1.84E-01 | 2.49E-02 | 3.23E-02 | -- | |
| 3. Percent of Technical Specification (TS) Limit | % | * | * | * | * | * | |

B. Iodines

| | | | | | | | |
|------------------------------------|---------|------------|----------|----------|----------|----------|--------|
| 1. Total Release | Curies | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | N/A*** |
| 2. Average Release Rate for Period | uCi/sec | 0.00E+01** | 0.00E+01 | 0.00E+01 | 0.00E+01 | -- | |
| 3. Percent of TS Limit | % | * | * | * | * | * | |

C. Particulates

| | | | | | | | |
|------------------------------------|---------|----------|----------|----------|----------|----------|--------|
| 1. Total Release | Curies | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | N/A*** |
| 2. Average Release Rate for Period | uCi/sec | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | -- | |
| 3. Percent of TS Limit | % | * | * | * | * | * | |

D. Tritium

| | | | | | | | |
|------------------------------------|---------|----------|----------|----------|----------|----------|-----|
| 1. Total Release | Curies | 6.94E-01 | 2.25E+00 | 1.74E+00 | 4.29E+00 | 8.97E+00 | 15% |
| 2. Average Release Rate for Period | uCi/sec | 8.93E-02 | 2.86E-01 | 2.19E-01 | 5.39E-01 | -- | |
| 3. Percent of Tech Spec Limit | % | * | * | * | * | * | |

E. Carbon-14

| | | | | | | | |
|------------------------------------|---------|----------|----------|----------|----------|----------|--|
| 1. Total Release | Curies | 5.68E+00 | 4.50E+00 | 5.56E+00 | 4.54E+00 | 2.03E+01 | |
| 2. Average Release Rate for Period | uCi/sec | 7.30E-01 | 5.72E-01 | 6.99E-01 | 5.71E-01 | -- | |
| 3. Percent of Tech Spec Limit | % | * | * | * | * | * | |

* Applicable Limits are expressed in terms of dose. See Tables 3A-D.

** Zeroes 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.

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Table 1-B Gaseous Effluents – Ground Level Releases (Batch)

| | Units | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Total |
|--|-------|----------------|----------------|----------------|----------------|----------|
| 1. Fission and Activation Gases | | | | | | |
| Ar-41 | Ci | 1.53E-01 | 7.33E-01 | 1.61E-01 | 2.37E-01 | 1.28E+00 |
| Xe-131m | Ci | 0.00E+01* | 0.00E+01 | 1.83E-03 | 0.00E+01 | 1.83E-03 |
| Xe-133 | Ci | 1.05E-02 | 6.86E-01 | 3.45E-02 | 2.02E-02 | 7.51E-01 |
| Xe-135 | Ci | 0.00E+01 | 2.64E-02 | 5.10E-04 | 0.00E+01 | 2.69E-02 |
| Total For Period | Ci | 1.63E-01 | 1.45E+00 | 1.98E-01 | 2.57E-01 | 2.06E+00 |
| 2. Iodines | | | | | | |
| Total For Period | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |
| 3. Particulates | | | | | | |
| Total For Period | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |
| 4. Gross Alpha | | | | | | |
| Gross Alpha | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |
| 5. Tritium | | | | | | |
| H-3 | Ci | 7.86E-02 | 1.92E+00 | 7.05E-02 | 6.14E-01 | 2.68E+00 |
| 6. Carbon-14 | | | | | | |
| C-14 | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |

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

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Table 1-B Gaseous Effluents – Ground Level Releases (Continuous)

| | Units | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Total |
|--|-------|----------------|----------------|----------------|----------------|----------|
| 1. Fission and Activation Gases | | | | | | |
| Total For Period | Ci | 0.00E+01* | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |
| 2. Iodines | | | | | | |
| Total For Period | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |
| 3. Particulates | | | | | | |
| Total For Period | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |
| 4. Gross Alpha | | | | | | |
| Gross Alpha | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |
| 5. Tritium | | | | | | |
| H-3 | Ci | 6.15E-01 | 3.34E-01 | 1.67E+00 | 3.67E+00 | 6.29E+00 |
| 6. Carbon-14 | | | | | | |
| C-14 | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |

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

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IV. Liquid Effluents

Table 2-A Liquid Effluents - Summation of all Releases

| | Units | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Annual | Error % |
|--|-------|----------------|----------------|----------------|----------------|--------|---------|
|--|-------|----------------|----------------|----------------|----------------|--------|---------|

A. Fission and Activation Products

| | | | | | | | |
|----------------------------------|--------|----------|----------|----------|----------|----------|-----|
| 1. Total Release | Curies | 1.45E-03 | 8.69E-03 | 3.36E-03 | 4.51E-02 | 5.86E-02 | 18% |
| 2. Average Diluted Concentration | uCi/mL | 6.58E-10 | 3.30E-09 | 1.35E-09 | 1.79E-08 | 5.95E-09 | |
| 3. Percent of Tech Spec Limit | % | * | * | * | * | | |

B. Tritium

| | | | | | | | |
|----------------------------------|--------|----------|----------|----------|----------|----------|-----|
| 1. Total Release | Curies | 6.43E+02 | 4.89E+02 | 6.21E+02 | 1.09E+02 | 1.86E+03 | 18% |
| 2. Average Diluted Concentration | uCi/mL | 2.92E-04 | 1.86E-04 | 2.49E-04 | 4.33E-05 | 1.89E-04 | |
| 3. Percent of Tech Spec Limit | % | * | * | * | * | | |

C. Dissolved and Entrained Noble Gases

| | | | | | | | |
|----------------------------------|--------|----------|----------|----------|----------|----------|-----|
| 1. Total Release | Curies | 9.93E-04 | 1.10E-03 | 1.24E-03 | 9.34E-05 | 3.42E-03 | 39% |
| 2. Average Diluted Concentration | uCi/mL | 4.51E-10 | 4.17E-10 | 4.96E-10 | 3.71E-11 | 3.47E-10 | |
| 3. Percent of Tech Spec Limit | % | * | * | * | * | | |

D. Gross Alpha Radioactivity

| | | | | | | | |
|------------------|--------|------------|----------|----------|----------|----------|--------|
| 1. Total Release | Curies | 0.00E+01** | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | N/A*** |
|------------------|--------|------------|----------|----------|----------|----------|--------|

| | | | | | | | |
|---|--------|----------|----------|----------|----------|----------|-----|
| E. Volume of Liquid Waste to Discharge Canal (prior to dilution) | Liters | 1.71E+06 | 2.60E+06 | 2.23E+06 | 2.13E+06 | 8.66E+06 | 4% |
| F. Volume of Dilution Water for Period | Liters | 2.13E+09 | 2.53E+09 | 2.38E+09 | 2.43E+09 | 9.47E+09 | N/A |

* Applicable Limits are expressed in terms of dose. See Tables 4A-D.

** Zeroes 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.

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Table 2-B Liquid Effluents – Batch Mode

| | Units | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Total |
|---|-------|----------------|----------------|----------------|----------------|----------|
| 1. Fission and Activation Products | | | | | | |
| Cr-51 | Ci | *0.00E+01 | 3.74E-03 | 2.44E-04 | 9.86E-03 | 1.39E-02 |
| Mn-54 | Ci | 3.32E-05 | 5.63E-05 | 3.10E-05 | 9.25E-04 | 1.05E-03 |
| Fe-55 | Ci | 1.52E-04 | 1.05E-04 | 5.05E-05 | 0.00E+01 | 3.07E-04 |
| Co-58 | Ci | 9.81E-06 | 7.58E-04 | 2.63E-04 | 6.95E-03 | 7.98E-03 |
| Fe-59 | Ci | 0.00E+01 | 1.54E-05 | 0.00E+01 | 1.22E-04 | 1.37E-04 |
| Co-60 | Ci | 1.06E-03 | 1.73E-03 | 1.34E-03 | 1.32E-02 | 1.73E-02 |
| Ni-63 | Ci | 1.30E-04 | 7.55E-04 | 1.12E-03 | 2.51E-03 | 4.52E-03 |
| Zn-65 | Ci | 0.00E+01 | 0.00E+01 | 1.09E-05 | 1.83E-04 | 1.94E-04 |
| Sr-91 | Ci | 0.00E+01 | 8.97E-06 | 0.00E+01 | 0.00E+01 | 8.97E-06 |
| Zr-95 | Ci | 0.00E+01 | 2.41E-04 | 1.23E-05 | 1.40E-03 | 1.66E-03 |
| Nb-95 | Ci | 0.00E+01 | 4.72E-04 | 2.84E-05 | 2.26E-03 | 2.76E-03 |
| Nb-97 | Ci | 0.00E+01 | 1.64E-04 | 5.14E-05 | 7.96E-05 | 2.95E-04 |
| Ag-110m | Ci | 0.00E+01 | 1.82E-04 | 1.27E-05 | 0.00E+01 | 1.95E-04 |
| Sn-113 | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 2.09E-05 | 2.09E-05 |
| Sn-117m | Ci | 0.00E+01 | 1.86E-05 | 0.00E+01 | 4.57E-06 | 2.32E-05 |
| Sb-122 | Ci | 0.00E+01 | 1.83E-05 | 0.00E+01 | 0.00E+01 | 1.83E-05 |
| Sb-124 | Ci | 0.00E+01 | 1.66E-04 | 1.95E-05 | 1.23E-03 | 1.41E-03 |
| Sb-125 | Ci | 6.03E-05 | 2.32E-04 | 1.69E-04 | 4.87E-03 | 5.33E-03 |
| Te-129m | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 5.66E-04 | 5.66E-04 |
| Te-131m | Ci | 0.00E+01 | 8.68E-06 | 0.00E+01 | 0.00E+01 | 8.68E-06 |
| I-131 | Ci | 3.07E-06 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 3.07E-06 |
| Te-132 | Ci | 0.00E+01 | 7.47E-06 | 0.00E+01 | 0.00E+01 | 7.47E-06 |
| I-132 | Ci | 0.00E+01 | 6.90E-06 | 0.00E+01 | 0.00E+01 | 6.90E-06 |
| Cs-136 | Ci | 0.00E+01 | 3.38E-06 | 0.00E+01 | 0.00E+01 | 3.38E-06 |
| Cs-137 | Ci | 5.42E-06 | 0.00E+01 | 0.00E+01 | 9.73E-04 | 9.78E-04 |
| Total For Period | Ci | 1.45E-03 | 8.69E-03 | 3.36E-03 | 4.51E-02 | 5.86E-02 |
| 2. Dissolved and Entrained Gases | | | | | | |
| Ar-41 | Ci | 0.00E+01 | 0.00E+01 | 6.36E-05 | 0.00E+01 | 6.36E-05 |
| Xe-133 | Ci | 9.93E-04 | 1.06E-03 | 1.03E-03 | 8.88E-05 | 3.17E-03 |
| Xe-135m | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 4.60E-06 | 4.60E-06 |
| Xe-135 | Ci | 0.00E+01 | 3.99E-05 | 1.40E-04 | 0.00E+01 | 1.80E-04 |
| Total For Period | Ci | 9.93E-04 | 1.10E-03 | 1.24E-03 | 9.34E-05 | 3.42E-03 |

* Zeroes indicate that no radioactivity was present at detectable levels

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Table 2-B Liquid Effluents – Continuous Mode

| | Units | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Total |
|---|-------|----------------|----------------|----------------|----------------|----------|
| 1. Fission and Activation Products | | | | | | |
| Total For Period | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |
| 2. Dissolved and Entrained Gases | | | | | | |
| Total For Period | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |
| 3. Tritium | | | | | | |
| Total For Period | Ci | 6.16E-01 | 3.34E-01 | 1.67E+00 | 3.67E+00 | 6.29E+00 |
| 4. Gross Alpha Activity | | | | | | |
| Total For Period | Ci | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 |

* Zeroes indicate that no radioactivity was present at detectable levels

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V. Solid Waste Storage and Shipment

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. | m3 | 5.50 | +5.00E-01 |
| | Ci | 1.60E+01 | +2.29E+01 |
| b. Dry Active Waste, Compressible Waste Contaminated Equipment, etc. | m3 | 728 | +1.00E+01 |
| | Ci | 4.56E+00 | +2.29E+01 |
| c. Irradiated Components, Control Rods, etc. | m3 | 0.00 | +1.00E+01 |
| | Ci | 0.00E+00 | +2.29E+01 |
| d. Other: Glycol Sent for Processing | m3 | 102 | +1.00E+01 |
| | Ci | 2.66E-02 | +2.29E+01 |

The reported volume for “category a” waste is based on the volume of the disposal container. Waste volumes for categories b, c, and d are based on the net waste volume rather than the shipping container volume. During transit, the waste for category b may settle resulting in an overall reduced volume. The reduction in disposal volume is estimated to be 10 percent due to settling. Volume estimates for category b wastes were based on a visual inspection of the container’s contents and its percent full.

The estimated total error (percent) for the total Curies shipped is based on calculating the square root of the sum of the squares method. Three parameters were considered as important for estimating the error. The parameters were variances with sample preparation and counting geometry, survey instrument accuracy for dose to Curie evaluations, and “in-field” sampling techniques. The assigned values for these parameters were 20, 10, and 5 percent, respectively.

$$\text{Total error (\%)} = (0.202 + 0.102 + 0.052)^{1/2} \times 100 = 22.9\%$$

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2. Estimate of Major Nuclide Composition (by type of waste)
a. Spent resins, filter sludges, evaporator bottoms, etc. (nuclides determined by measurement)

| | <u>Nuclide</u> | <u>Curies</u> | <u>Percent</u> |
|----|----------------|---------------|----------------|
| 1 | Hydrogen-3 | 2.38E-02 | 0.02 |
| 2 | Carbon-14 | 1.67E-01 | 0.14 |
| 3 | Chromium-51 | 1.43E-03 | 0 |
| 4 | Manganese-54 | 1.43E+00 | 1.22 |
| 5 | Iron-55 | 1.21E+01 | 10.29 |
| 6 | Iron-59 | 6.03E-04 | 0 |
| 7 | Cobalt-57 | 1.88E-02 | 0.02 |
| 8 | Cobalt-58 | 1.13E-01 | 0.1 |
| 9 | Cobalt-60 | 5.27E+01 | 44.86 |
| 10 | Nickel-59 | 6.78E-01 | 0.58 |
| 11 | Nickel-63 | 4.58E+01 | 38.95 |
| 12 | Zinc-65 | 2.55E-01 | 0.0022 |
| 13 | Strontium-89 | 2.39E-05 | 0.01 |
| 14 | Strontium-90 | 1.60E-02 | 0.07 |
| 15 | Zirconium-95 | 7.82E-02 | 0.15 |
| 16 | Niobium-95 | 1.71E-01 | 0.01 |
| 17 | Technitium-99 | 9.89E-03 | 0.0001 |
| 18 | Silver-110m | 9.24E-04 | 0 |
| 19 | Tin-113 | 5.35E-03 | 0 |
| 20 | Antimony-124 | 3.15E-04 | 0 |
| 21 | Antimony-125 | 2.44E-01 | 0.21 |
| 22 | Cesium-134 | 5.67E-02 | 0.05 |
| 23 | Cesium-137 | 3.55E+00 | 3.02 |
| 24 | Cerium-144 | 4.62E-02 | 0.04 |
| 25 | Plutonium-238 | 1.71E-04 | 0 |
| 26 | Plutonium-239 | 5.54E-05 | 0 |
| 27 | Plutonium-240 | 5.54E-05 | 0 |
| 28 | Plutonium-241 | 5.46E-02 | 0.05 |
| 29 | Americium-241 | 1.76E-04 | 0 |
| 30 | Curium-242 | 4.51E-05 | 0 |
| 31 | Curium-243 | 1.55E-04 | 0 |
| 32 | Curium-244 | 1.43E-04 | 0 |

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

| | <u>Nuclide</u> | <u>Curies</u> | <u>Percent</u> |
|----|----------------|---------------|----------------|
| 1 | Hydrogen-3 | 5.16E-02 | 0.08 |
| 2 | Carbon-14 | 1.81E-02 | 0.03 |
| 3 | Manganese-54 | 1.74E+00 | 2.54 |
| 4 | Iron-55 | 5.28E+01 | 77.21 |
| 5 | Cobalt-57 | 1.30E-02 | 0.02 |
| 6 | Cobalt-58 | 8.96E-02 | 0.13 |
| 7 | Cobalt-60 | 1.30E+01 | 19.01 |
| 8 | Nickel-63 | 1.47E-02 | 0.02 |
| 9 | Zinc-65 | 3.96E-01 | 0.58 |
| 10 | Strontium-90 | 2.09E-03 | 0.00 |
| 11 | Zirconium-95 | 4.54E-02 | 0.07 |
| 12 | Niobium-95 | 8.74E-02 | 0.13 |
| 13 | Antimony-124 | 6.90E-02 | 0.10 |
| 14 | Cesium-137 | 1.88E-02 | 0.03 |
| 15 | Cerium-144 | 4.15E-02 | 0.06 |

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c. Irradiated Components

| | <u>Nuclide</u> | <u>Curies</u> | <u>Percent</u> |
|--|----------------|---------------|----------------|
| | N/A | N/A | N/A |

d. Other

| | <u>Nuclide</u> | <u>Curies</u> | <u>Percent</u> |
|----|----------------|---------------|----------------|
| 1 | Hydrogen-3 | 1.13E-02 | 42.31 |
| 2 | Carbon-14 | 3.15E-06 | 0.01 |
| 3 | Chromium-51 | 4.65E-18 | 5.49 |
| 4 | Manganese-54 | 1.46E-03 | 1.13 |
| 5 | Iron-55 | 3.01E-04 | 35.47 |
| 6 | Cobalt-57 | 9.45E-03 | 0.01 |
| 7 | Cobalt-58 | 2.50E-06 | 1.22 |
| 8 | Cobalt-60 | 3.26E-04 | 8.61 |
| 9 | Nickel-63 | 2.29E-03 | 0.01 |
| 10 | Zinc-65 | 2.55E-06 | 0.66 |
| 11 | Strontium-90 | 1.75E-04 | 0.01 |
| 12 | Zirconium-95 | 2.77E-06 | 0.10 |
| 13 | Niobium-95 | 2.56E-05 | 0.18 |
| 14 | Silver-110m | 4.70E-05 | 0.51 |
| 15 | Tin-117m | 1.37E-04 | 0.03 |
| 16 | Antimony-124 | 7.57E-06 | 1.28 |
| 17 | Antimony-125 | 3.41E-04 | 2.66 |
| 18 | Cesium-137 | 7.08E-04 | 0.09 |
| 19 | Cerium-144 | 2.49E-05 | 0.22 |

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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 | EnergySolutions Services, LLC Clive Disposal Site Treatment Facility Interstate 80, Exit 49 Clive, UT 84029 |
| 1 | Type B | Motor Freight | Waste Control Specialist, LLC Compact Waste Disposal Facility 9998 W. State Hwy. 176 Andrews, TX 79714 |

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

| Number of Shipments | Type Quantity | Mode of Transportation | Destination |
|---------------------|--------------------------------|------------------------|---|
| 8 | A - LSA II | Motor Freight | TOXCO Inc. TOXCO Materials Management Center 109 Flint Rd. Oak Ridge, TN 37830 |
| 6 | A - LSA II Limited Quantity | Motor Freight | TOXCO Inc. TOXCO Materials Management Center 109 Flint Rd. Oak Ridge, TN 37830 |
| 3 | Limited Quantity | Motor Freight | TOXCO Inc. TOXCO Materials Management Center 109 Flint Rd. Oak Ridge, TN 37830 |
| 1 | A - LSA II | Motor Freight | Energy Solutions Services, Inc. 1560 Bear Creek Rd. Oak Ridge, TN 37830 |

c. Irradiated components, control rods, etc.

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

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d. Other: Glycol for processing

| Number of Shipments | Type Quantity | Mode of Transportation | Destination |
|---------------------|-----------------|------------------------|--|
| 3 | Exempt Quantity | Motor Freight | Energy Solutions Services, Inc. 1560 Bear Creek Rd. Oak Ridge, TN 37830 |

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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: N/A

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VI. Independent Spent Fuel Storage Installation

SQN implemented use of an independent spent fuel storage installation (ISFSI) on July 13, 2004. 10 CFR 72.214 Certificate of Compliance (CoC) Nos. 1014 and 1032 correspond to the two certificates of the spent fuel storage systems in use at the ISFSI. The ISFSI is located on site, within the protected area and is designed to hold 90 spent fuel storage canisters (SFSCs). CoC Nos. 1014 and 1032 Appendix A Chapter 5 requires an annual report in accordance with 10 CFR 72.44(d)(3). CoC Nos. 1014 and 1032 Chapter 5 also provides that the ISFSI operations may be considered part of plant operations for the purposes of the radiological environmental monitoring program.

CoC No. 1014 Section 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 assurance that there are not radioactive effluents from SFSC."

CoC No. 1032 Section 5.1a states, "The HI-STORM FW MPC Storage System does not create any radioactive materials 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 assurance that there are not radioactive effluents from the SFSC."

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 |

Although CoC Nos. 1014 and 1032 provide that the HI-STORM 100 Cask System and HI-STORM FW MPC Storage System do not create any radioactive material or have any radioactive waste treatment systems, for this report, total site releases include the SQN ISFSI as part of the SQN site and part of plant operations. These releases are within 40 CFR 190 limits and 10 CFR 72.104 limits.

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VII. Radiological Impact to Man

A. 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 river flow data. In this report, the doses resulting from releases are described and compared to limits established for SQN.

B. 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 released are:

- Less than or equal to 5 mrad per quarter and 10 mrad per year (per reactor unit) for gamma radiation
- 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
- 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,
- Less than or equal to 25 mrem per year to any other organ.

C. 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

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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 3 and 4.

D. 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

All releases from SQN are considered ground-level releases. The ground-level Joint Frequency Distribution (JFD) is derived from wind speeds and directions measured 10 meters above ground and from the vertical temperature difference between 10 and 46 meters, as presented for each quarter in Section VII Meteorological Data.

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 JFDs are calculated for each release point using the appropriate levels of meteorological data. A JFD provides 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 non-calm wind directions less than 0.7 m/s (1.5 mph). Stability classes are determined from the vertical temperature difference between two measurement levels. This year, due to an issue during an alignment of a sonic sensor used to determine wind direction, the wind data for Q4 2021 was lost. This is reflected in CR# 1742782. Dose calculations for this period for gaseous releases reflect a 10 year average data calculated for 2009-2018, as this would most accurately reflect a theoretical model in the absence of empirical quarterly data.

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

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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 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 Table 3.

E. 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 Guide 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 assumes 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

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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 Table 4, 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.

F. 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 3 and 4.

G. Offsite Direct Radiation Dose

External gamma radiation levels were measured by dosimeters deployed around SQN as part of the offsite REMP. The quarterly gamma radiation levels determined from these dosimeters during this reporting period averaged approximately 15.0 mrem/quarter at onsite (at or near the site boundary) stations and approximately 14.2 mrem/quarter at offsite stations, or approximately 0.8 mrem/quarter higher onsite than at offsite stations. This difference is consistent with levels measured for preoperational and construction phases of the TVA nuclear plant site where the average radiation levels onsite were generally 1-3 mrem/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 dosimeters 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.

H. Dose to a Member of the Public Inside the Site Boundary

As stated in the SQN ODCM, 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 boundary for an entire work year (2000 hours). Results from onsite dosimeter measurements for 2021 indicate that the highest onsite dosimeter reading was 20 mrem after subtraction of the annual background value of 49 mrem/year (from perimeter dosimeters around Sequoyah). Using this value and multiplying by the ratio of the

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occupancy times (2000/8760), the external dose was 4.57 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.

I. 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 5.

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Table 4-A Doses from Liquid Effluents – 1st Quarter

Individual Doses

| Age Group | Organ | Dose | Quarterly Limit | Percent of Limit |
|------------|-------------------------------|----------|-----------------|------------------|
| Child(Max) | Bone/GIT/Liver Kidney/Lung | 1.40E-03 | 5 mrem | < 1 % |
| Child | Thyroid | 1.40E-03 | 5 mrem | < 1 % |
| Child | Total Body | 1.40E-03 | 1.5 mrem | < 1 % |

Average Riverflow past SQN (cubic feet per second): 55,371

Population Doses

Total Body Dose 1.20E-01 man-rem
Maximum Organ Dose (Organ) 1.20E-01 man-rem (Bone/GIT/Thyroid/Liver/Kidney/Lung)

Table 4-B Doses from Liquid Effluents – 2nd Quarter

Individual Doses

| Age Group | Organ | Dose | Quarterly Limit | Percent of Limit |
|--------------|------------|----------|-----------------|------------------|
| Child (Max) | Bone/GIT | 2.00E-03 | 5 mrem | < 1 % |
| Child/Infant | Thyroid | 1.90E-03 | 5 mrem | < 1 % |
| Child/Infant | Total Body | 1.90E-03 | 1.5 mrem | < 1 % |

Average Riverflow past SQN (cubic feet per second): 30,838

Population Doses

Total Body Dose 1.70E-01 man-rem
Maximum Organ Dose (Organ) 1.70E-01 man-rem (Bone/GIT/Thyroid/Liver/Kidney/Lung)

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Radiological Impact
Table 5 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) | 1.00E-04 | 8.92E-04 | 2.25E-04 | 1.83E-04 | |
| Critical organ dose (airborne) | 2.99E-01 | 4.64E-01 | 4.84E-01 | 2.69E-01 | |
| Total body dose (liquid) | 1.40E-03 | 1.90E-03 | 2.30E-03 | 8.10E-04 | |
| Maximum organ dose (liquid) | 1.40E-03 | 2.00E-03 | 2.30E-03 | 2.40E-03 | |
| Direct Radiation Dose | 0.00E+01 | 0.00E+01 | 0.00E+01 | 0.00E+01 | |
| Total | 3.02E-01 | 4.69E-01 | 4.89E-01 | 2.72E-01 | |
| Cumulative Total Dose (mrem) | | | | | 1.53 |
| Annual Dose Limit (mrem) | | | | | 25 |
| Percent of Limit | | | | | 6.13 |
| Thyroid | | | | | |
| Total body air (submersion) | 1.00E-04 | 8.92E-04 | 2.25E-04 | 1.83E-04 | |
| Thyroid dose (airborne) | 6.00e-02 | 9.41E-02 | 9.73e-02 | 5.48e-02 | |
| Total body dose (liquid) | 1.40E-03 | 1.90E-03 | 2.30E-03 | 8.10E-04 | |
| Thyroid dose (liquid) | 1.40E-03 | 1.90E-03 | 2.30E-03 | 7.30E-04 | |
| Total | 6.29E-02 | 9.88E-02 | 1.02E-01 | 5.65E-02 | |
| Cumulative Total Dose (mrem) | | | | | 3.20E-01 |
| Annual Dose Limit (mrem) | | | | | 75 |
| Percent of Limit | | | | | <1 |

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Meteorological Data

VIII. 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, 2021 - MAR 31, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.000 | 0.101 | 0.151 | 0.101 | 0.000 | 0.000 | 0.000 | 0.352 |
| NNE | 0.000 | 0.000 | 0.050 | 0.201 | 0.352 | 0.251 | 0.000 | 0.000 | 0.000 | 0.854 |
| NE | 0.000 | 0.000 | 0.000 | 0.151 | 0.302 | 0.050 | 0.000 | 0.000 | 0.000 | 0.503 |
| ENE | 0.000 | 0.000 | 0.000 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| 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 | 0.000 | 0.151 | 0.000 | 0.000 | 0.000 | 0.151 |
| SSW | 0.000 | 0.000 | 0.000 | 0.050 | 0.050 | 0.251 | 0.000 | 0.000 | 0.000 | 0.352 |
| SW | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 | 0.050 | 0.000 | 0.000 | 0.000 | 0.101 |
| 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 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 |
| 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 | 0.101 | 0.000 | 0.201 | 0.000 | 0.000 | 0.000 | 0.302 |
| SUBTOTAL | 0.000 | 0.000 | 0.050 | 0.704 | 0.955 | 1.055 | 0.000 | 0.000 | 0.000 | 2.764 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2155
 TOTAL HOURS OF STABILITY CLASS A 57
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A 55
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 1990
 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: 2021/04/26

MEAN WIND SPEED = 6.97

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, 2021 - MAR 31, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.000 | 0.050 | 0.302 | 0.201 | 0.000 | 0.000 | 0.000 | 0.553 |
| NNE | 0.000 | 0.000 | 0.000 | 0.402 | 0.452 | 0.402 | 0.000 | 0.000 | 0.000 | 1.256 |
| NE | 0.000 | 0.000 | 0.050 | 0.101 | 0.050 | 0.151 | 0.000 | 0.000 | 0.000 | 0.352 |
| ENE | 0.000 | 0.000 | 0.000 | 0.050 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| 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 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 |
| 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 | 0.151 | 0.000 | 0.000 | 0.000 | 0.151 |
| SSW | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 | 0.653 | 0.000 | 0.000 | 0.000 | 0.754 |
| SW | 0.000 | 0.000 | 0.000 | 0.050 | 0.050 | 0.201 | 0.000 | 0.000 | 0.000 | 0.302 |
| WSW | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 | 0.101 | 0.000 | 0.000 | 0.000 | 0.151 |
| 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 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 |
| NW | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 | 0.000 | 0.000 | 0.000 | 0.101 |
| NNW | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 | 0.101 | 0.000 | 0.000 | 0.000 | 0.201 |
| SUBTOTAL | 0.000 | 0.000 | 0.101 | 0.653 | 1.206 | 2.060 | 0.000 | 0.000 | 0.000 | 4.020 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2155
 TOTAL HOURS OF STABILITY CLASS B 85
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 80
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 1990
 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: 2021/04/26

MEAN WIND SPEED = 7.25

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, 2021 - MAR 31, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.101 | 0.000 | 0.302 | 0.151 | 0.000 | 0.000 | 0.000 | 0.553 |
| NNE | 0.000 | 0.000 | 0.050 | 0.302 | 0.402 | 0.452 | 0.050 | 0.000 | 0.000 | 1.256 |
| NE | 0.000 | 0.000 | 0.101 | 0.151 | 0.151 | 0.050 | 0.000 | 0.000 | 0.000 | 0.452 |
| ENE | 0.000 | 0.000 | 0.050 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| E | 0.000 | 0.000 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 |
| ESE | 0.000 | 0.000 | 0.000 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 |
| 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 | 0.101 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.151 |
| 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 | 0.050 | 0.101 | 0.201 | 0.251 | 0.000 | 0.000 | 0.000 | 0.603 |
| SW | 0.000 | 0.000 | 0.000 | 0.101 | 0.101 | 0.050 | 0.000 | 0.000 | 0.000 | 0.251 |
| WSW | 0.000 | 0.000 | 0.000 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 |
| W | 0.000 | 0.000 | 0.000 | 0.050 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| WNW | 0.000 | 0.000 | 0.050 | 0.050 | 0.000 | 0.050 | 0.000 | 0.000 | 0.000 | 0.151 |
| NW | 0.000 | 0.000 | 0.000 | 0.101 | 0.101 | 0.151 | 0.000 | 0.000 | 0.000 | 0.352 |
| NNW | 0.000 | 0.000 | 0.000 | 0.050 | 0.050 | 0.151 | 0.000 | 0.000 | 0.000 | 0.251 |
| SUBTOTAL | 0.000 | 0.000 | 0.553 | 1.106 | 1.357 | 1.307 | 0.050 | 0.000 | 0.000 | 4.372 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2155
 TOTAL HOURS OF STABILITY CLASS C 91
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C 87
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 1990
 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: 2021/04/26

MEAN WIND SPEED = 6.36

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, 2021 - MAR 31, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.101 | 1.256 | 2.915 | 2.462 | 1.608 | 0.000 | 0.000 | 0.000 | 8.342 |
| NNE | 0.000 | 0.050 | 1.256 | 3.819 | 4.322 | 3.769 | 0.000 | 0.000 | 0.000 | 13.216 |
| NE | 0.000 | 0.000 | 0.704 | 0.352 | 0.101 | 0.050 | 0.000 | 0.000 | 0.000 | 1.206 |
| ENE | 0.000 | 0.000 | 0.402 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.503 |
| E | 0.000 | 0.000 | 0.151 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.201 |
| 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 | 0.151 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.151 |
| SSE | 0.000 | 0.000 | 0.251 | 0.050 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.352 |
| S | 0.000 | 0.000 | 0.201 | 0.754 | 0.151 | 0.553 | 0.050 | 0.000 | 0.000 | 1.709 |
| SSW | 0.000 | 0.000 | 1.055 | 2.362 | 1.910 | 0.804 | 0.000 | 0.000 | 0.000 | 6.131 |
| SW | 0.000 | 0.000 | 1.307 | 1.357 | 1.055 | 0.352 | 0.000 | 0.000 | 0.000 | 4.070 |
| WSW | 0.000 | 0.000 | 0.201 | 1.005 | 0.553 | 0.201 | 0.000 | 0.000 | 0.000 | 1.960 |
| W | 0.000 | 0.000 | 0.151 | 0.603 | 1.307 | 0.804 | 0.000 | 0.000 | 0.000 | 2.864 |
| WNW | 0.000 | 0.050 | 0.201 | 0.302 | 0.553 | 0.302 | 0.000 | 0.000 | 0.000 | 1.407 |
| NW | 0.000 | 0.000 | 0.201 | 0.553 | 0.854 | 0.352 | 0.000 | 0.000 | 0.000 | 1.960 |
| NNW | 0.000 | 0.000 | 0.352 | 0.704 | 1.457 | 1.357 | 0.000 | 0.000 | 0.000 | 3.869 |
| SUBTOTAL | 0.000 | 0.201 | 7.839 | 14.925 | 14.774 | 10.151 | 0.050 | 0.000 | 0.000 | 47.940 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2155
 TOTAL HOURS OF STABILITY CLASS D 1009
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 954
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 1990
 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: 2021/04/26

MEAN WIND SPEED = 5.62

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, 2021 - MAR 31, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.151 | 1.156 | 0.653 | 0.201 | 0.201 | 0.000 | 0.000 | 0.000 | 2.362 |
| NNE | 0.000 | 0.302 | 2.462 | 2.312 | 0.653 | 0.251 | 0.000 | 0.000 | 0.000 | 5.980 |
| NE | 0.000 | 0.151 | 0.402 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.653 |
| ENE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| E | 0.000 | 0.050 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| ESE | 0.000 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 |
| SE | 0.000 | 0.000 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| SSE | 0.000 | 0.101 | 0.101 | 0.000 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.251 |
| S | 0.000 | 0.050 | 0.503 | 0.251 | 0.251 | 1.055 | 0.000 | 0.000 | 0.000 | 2.111 |
| SSW | 0.000 | 0.000 | 1.960 | 1.658 | 1.106 | 0.201 | 0.000 | 0.000 | 0.000 | 4.925 |
| SW | 0.000 | 0.050 | 1.307 | 1.457 | 0.251 | 0.050 | 0.000 | 0.000 | 0.000 | 3.116 |
| WSW | 0.000 | 0.050 | 0.402 | 0.402 | 0.151 | 0.050 | 0.000 | 0.000 | 0.000 | 1.055 |
| W | 0.000 | 0.000 | 0.050 | 0.402 | 0.352 | 0.000 | 0.000 | 0.000 | 0.000 | 0.804 |
| WNW | 0.000 | 0.000 | 0.251 | 0.101 | 0.452 | 0.000 | 0.000 | 0.000 | 0.000 | 0.804 |
| NW | 0.000 | 0.000 | 0.452 | 0.352 | 0.302 | 0.000 | 0.000 | 0.000 | 0.000 | 1.106 |
| NNW | 0.000 | 0.151 | 0.653 | 0.754 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 1.658 |
| SUBTOTAL | 0.000 | 1.106 | 9.849 | 8.442 | 3.869 | 1.809 | 0.000 | 0.000 | 0.000 | 25.075 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2155
 TOTAL HOURS OF STABILITY CLASS E 546
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 499
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 1990
 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: 2021/04/26

MEAN WIND SPEED = 4.13

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, 2021 - MAR 31, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.151 | 0.905 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.156 |
| NNE | 0.000 | 0.050 | 1.809 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.960 |
| NE | 0.000 | 0.352 | 0.653 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.005 |
| ENE | 0.000 | 0.101 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.151 |
| E | 0.000 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| ESE | 0.000 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| SE | 0.000 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.050 |
| SSE | 0.000 | 0.101 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.151 |
| S | 0.000 | 0.201 | 0.101 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.402 |
| SSW | 0.000 | 0.000 | 1.508 | 0.503 | 0.251 | 0.151 | 0.000 | 0.000 | 0.000 | 2.412 |
| SW | 0.000 | 0.000 | 1.457 | 0.503 | 0.151 | 0.050 | 0.000 | 0.000 | 0.000 | 2.161 |
| WSW | 0.000 | 0.050 | 0.402 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.452 |
| W | 0.000 | 0.000 | 0.101 | 0.050 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.201 |
| WNW | 0.000 | 0.000 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| NW | 0.000 | 0.000 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| NNW | 0.000 | 0.000 | 0.352 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.352 |
| SUBTOTAL | 0.000 | 1.256 | 7.588 | 1.357 | 0.452 | 0.201 | 0.000 | 0.000 | 0.000 | 10.854 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2155
 TOTAL HOURS OF STABILITY CLASS F 244
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F 216
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 1990
 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: 2021/04/26

MEAN WIND SPEED = 2.70

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, 2021 - MAR 31, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.001 | 0.000 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.102 |
| NNE | 0.007 | 0.101 | 0.402 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.509 |
| NE | 0.005 | 0.000 | 0.352 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.356 |
| ENE | 0.001 | 0.000 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 |
| 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 | 0.001 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.102 |
| S | 0.004 | 0.050 | 0.251 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.305 |
| SSW | 0.020 | 0.352 | 1.206 | 0.603 | 0.151 | 0.000 | 0.000 | 0.000 | 0.000 | 2.332 |
| SW | 0.007 | 0.000 | 0.503 | 0.101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.610 |
| WSW | 0.001 | 0.000 | 0.050 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.101 |
| W | 0.001 | 0.000 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 |
| WNW | 0.001 | 0.000 | 0.050 | 0.151 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.202 |
| NW | 0.001 | 0.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 |
| NNW | 0.003 | 0.050 | 0.151 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.204 |
| SUBTOTAL | 0.050 | 0.704 | 3.166 | 0.905 | 0.151 | 0.000 | 0.000 | 0.000 | 0.000 | 4.975 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2155
 TOTAL HOURS OF STABILITY CLASS G 123
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G 99
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 1990
 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: 2021/04/26

MEAN WIND SPEED = 2.44

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, 2021 - JUN 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.000 | 0.000 | 0.276 | 0.414 | 0.000 | 0.000 | 0.000 | 0.690 |
| NNE | 0.000 | 0.000 | 0.000 | 0.506 | 0.506 | 0.460 | 0.000 | 0.000 | 0.000 | 1.472 |
| NE | 0.000 | 0.000 | 0.000 | 0.690 | 0.414 | 0.184 | 0.000 | 0.000 | 0.000 | 1.288 |
| 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 | 0.000 | 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 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 |
| S | 0.000 | 0.000 | 0.000 | 0.046 | 0.184 | 0.000 | 0.000 | 0.000 | 0.000 | 0.230 |
| SSW | 0.000 | 0.000 | 0.000 | 0.138 | 0.322 | 0.184 | 0.000 | 0.000 | 0.000 | 0.644 |
| SW | 0.000 | 0.000 | 0.000 | 0.368 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.460 |
| 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 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 |
| 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 | 0.046 | 0.000 | 0.000 | 0.000 | 0.046 |
| NNW | 0.000 | 0.000 | 0.000 | 0.000 | 0.230 | 0.276 | 0.000 | 0.000 | 0.000 | 0.506 |
| SUBTOTAL | 0.000 | 0.000 | 0.000 | 1.840 | 2.070 | 1.564 | 0.000 | 0.000 | 0.000 | 5.474 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS A 119
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A 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 9.25 AND 45.99 METERS
 WIND SPEED AND DIRECTION MEASURED AT 9.73 METER LEVEL

DATE PRINTED: 2021/07/23

MEAN WIND SPEED = 6.56

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, 2021 - JUN 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.000 | 0.138 | 0.138 | 0.184 | 0.046 | 0.000 | 0.000 | 0.506 |
| NNE | 0.000 | 0.000 | 0.000 | 0.736 | 0.230 | 0.046 | 0.000 | 0.000 | 0.000 | 1.012 |
| NE | 0.000 | 0.000 | 0.092 | 0.874 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.966 |
| 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 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 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 | 0.092 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.184 |
| S | 0.000 | 0.000 | 0.000 | 0.092 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.184 |
| SSW | 0.000 | 0.000 | 0.000 | 0.138 | 0.644 | 0.138 | 0.000 | 0.000 | 0.000 | 0.920 |
| SW | 0.000 | 0.000 | 0.000 | 0.368 | 0.138 | 0.046 | 0.000 | 0.000 | 0.000 | 0.552 |
| WSW | 0.000 | 0.000 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.092 |
| W | 0.000 | 0.000 | 0.000 | 0.046 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.138 |
| WNW | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 |
| 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 | 0.046 | 0.000 | 0.046 | 0.322 | 0.000 | 0.000 | 0.000 | 0.414 |
| SUBTOTAL | 0.000 | 0.000 | 0.230 | 2.622 | 1.518 | 0.736 | 0.046 | 0.000 | 0.000 | 5.152 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS B 112
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 112
 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: 2021/07/23

MEAN WIND SPEED = 5.51

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, 2021 - JUN 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.046 | 0.092 | 0.000 | 0.138 | 0.000 | 0.000 | 0.000 | 0.276 |
| NNE | 0.000 | 0.000 | 0.046 | 0.506 | 0.184 | 0.046 | 0.000 | 0.000 | 0.000 | 0.782 |
| NE | 0.000 | 0.000 | 0.322 | 0.552 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.966 |
| ENE | 0.000 | 0.000 | 0.230 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.322 |
| 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 | 0.046 | 0.000 | 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 | 0.092 | 0.138 | 0.000 | 0.000 | 0.000 | 0.000 | 0.230 |
| S | 0.000 | 0.000 | 0.092 | 0.460 | 0.368 | 0.046 | 0.000 | 0.000 | 0.000 | 0.966 |
| SSW | 0.000 | 0.000 | 0.230 | 0.828 | 0.552 | 0.092 | 0.000 | 0.000 | 0.000 | 1.702 |
| SW | 0.000 | 0.000 | 0.138 | 0.276 | 0.230 | 0.046 | 0.000 | 0.000 | 0.000 | 0.690 |
| WSW | 0.000 | 0.000 | 0.046 | 0.000 | 0.046 | 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 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.092 |
| NW | 0.000 | 0.000 | 0.000 | 0.000 | 0.092 | 0.046 | 0.000 | 0.000 | 0.000 | 0.138 |
| NNW | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.184 | 0.000 | 0.000 | 0.000 | 0.230 |
| SUBTOTAL | 0.000 | 0.000 | 1.288 | 2.990 | 1.794 | 0.598 | 0.000 | 0.000 | 0.000 | 6.670 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 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 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: 2021/07/23

MEAN WIND SPEED = 5.03

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, 2021 - JUN 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.092 | 0.736 | 0.782 | 0.828 | 0.322 | 0.000 | 0.000 | 0.000 | 2.760 |
| NNE | 0.000 | 0.092 | 1.150 | 1.472 | 1.012 | 0.506 | 0.000 | 0.000 | 0.000 | 4.232 |
| NE | 0.000 | 0.046 | 1.242 | 0.598 | 0.184 | 0.000 | 0.000 | 0.000 | 0.000 | 2.070 |
| ENE | 0.000 | 0.092 | 0.368 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.460 |
| E | 0.000 | 0.046 | 0.276 | 0.184 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.506 |
| ESE | 0.000 | 0.000 | 0.368 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.368 |
| SE | 0.000 | 0.092 | 0.368 | 0.230 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.690 |
| SSE | 0.000 | 0.046 | 0.414 | 0.828 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 1.380 |
| S | 0.000 | 0.000 | 2.300 | 3.128 | 0.828 | 0.368 | 0.000 | 0.000 | 0.000 | 6.624 |
| SSW | 0.000 | 0.000 | 3.312 | 3.864 | 0.920 | 0.506 | 0.000 | 0.000 | 0.000 | 8.602 |
| SW | 0.000 | 0.000 | 1.748 | 2.346 | 0.414 | 0.138 | 0.000 | 0.000 | 0.000 | 4.646 |
| WSW | 0.000 | 0.000 | 0.460 | 0.276 | 0.138 | 0.046 | 0.000 | 0.000 | 0.000 | 0.920 |
| W | 0.000 | 0.000 | 0.276 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.322 |
| WNW | 0.000 | 0.046 | 0.046 | 0.092 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.276 |
| NW | 0.000 | 0.046 | 0.092 | 0.276 | 0.414 | 0.138 | 0.000 | 0.000 | 0.000 | 0.966 |
| NNW | 0.000 | 0.092 | 0.230 | 0.322 | 0.598 | 0.184 | 0.000 | 0.000 | 0.000 | 1.426 |
| SUBTOTAL | 0.000 | 0.690 | 13.385 | 14.443 | 5.520 | 2.208 | 0.000 | 0.000 | 0.000 | 36.247 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS D 788
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 788
 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: 2021/07/23

MEAN WIND SPEED = 4.19

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, 2021 - JUN 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.007 | 0.460 | 2.668 | 0.690 | 0.322 | 0.092 | 0.000 | 0.000 | 0.000 | 4.239 |
| NNE | 0.008 | 0.874 | 2.484 | 0.736 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 4.193 |
| NE | 0.001 | 0.000 | 0.230 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.277 |
| ENE | 0.001 | 0.276 | 0.230 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.507 |
| E | 0.001 | 0.138 | 0.138 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.277 |
| ESE | 0.001 | 0.138 | 0.184 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.323 |
| SE | 0.001 | 0.138 | 0.414 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.599 |
| SSE | 0.002 | 0.230 | 0.736 | 0.230 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 1.244 |
| S | 0.004 | 0.506 | 1.334 | 0.506 | 0.138 | 0.046 | 0.000 | 0.000 | 0.000 | 2.534 |
| SSW | 0.007 | 0.414 | 2.668 | 0.644 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 3.779 |
| SW | 0.006 | 0.230 | 2.392 | 0.736 | 0.138 | 0.000 | 0.000 | 0.000 | 0.000 | 3.502 |
| WSW | 0.002 | 0.046 | 0.690 | 0.184 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.922 |
| W | 0.001 | 0.184 | 0.414 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.691 |
| WNW | 0.001 | 0.046 | 0.230 | 0.230 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 0.599 |
| NW | 0.002 | 0.276 | 0.598 | 0.322 | 0.230 | 0.000 | 0.000 | 0.000 | 0.000 | 1.428 |
| NNW | 0.002 | 0.138 | 0.736 | 0.644 | 0.092 | 0.046 | 0.000 | 0.000 | 0.000 | 1.658 |
| SUBTOTAL | 0.046 | 4.094 | 16.145 | 5.060 | 1.196 | 0.230 | 0.000 | 0.000 | 0.000 | 26.771 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS E 582
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 582
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2174
 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: 2021/07/23

MEAN WIND SPEED = 2.74

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, 2021 - JUN 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.005 | 0.092 | 1.426 | 0.276 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.798 |
| NNE | 0.015 | 1.288 | 3.634 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 4.936 |
| NE | 0.008 | 1.196 | 1.472 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 2.676 |
| ENE | 0.002 | 0.598 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.600 |
| E | 0.001 | 0.184 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.277 |
| ESE | 0.001 | 0.230 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.323 |
| SE | 0.002 | 0.460 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.554 |
| SSE | 0.002 | 0.552 | 0.138 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.692 |
| S | 0.002 | 0.230 | 0.368 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.600 |
| SSW | 0.003 | 0.184 | 0.782 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.061 |
| SW | 0.004 | 0.046 | 1.196 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.246 |
| WSW | 0.001 | 0.092 | 0.276 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.369 |
| W | 0.000 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 |
| WNW | 0.000 | 0.000 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.092 |
| NW | 0.000 | 0.046 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.138 |
| NNW | 0.001 | 0.000 | 0.414 | 0.138 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.553 |
| SUBTOTAL | 0.046 | 5.198 | 10.212 | 0.506 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 15.961 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS F 347
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F 347
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2174
 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: 2021/07/23

MEAN WIND SPEED = 1.79

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

APR 1, 2021 - JUN 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.138 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.138 |
| NNE | 0.000 | 0.230 | 0.460 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.690 |
| NE | 0.000 | 0.230 | 0.276 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.506 |
| ENE | 0.000 | 0.276 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.368 |
| E | 0.000 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.092 |
| ESE | 0.000 | 0.230 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.230 |
| SE | 0.000 | 0.414 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.414 |
| SSE | 0.000 | 0.368 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.414 |
| S | 0.000 | 0.276 | 0.092 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.368 |
| SSW | 0.000 | 0.000 | 0.276 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.276 |
| SW | 0.000 | 0.046 | 0.184 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.230 |
| 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 | 2.162 | 1.564 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.726 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174
 TOTAL HOURS OF STABILITY CLASS G 81
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G 81
 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: 2021/07/23

MEAN WIND SPEED = 1.47

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, 2021 - SEP 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.046 | 0.232 | 0.093 | 0.093 | 0.000 | 0.000 | 0.000 | 0.464 |
| NNE | 0.000 | 0.000 | 0.232 | 1.020 | 0.556 | 0.139 | 0.000 | 0.000 | 0.000 | 1.947 |
| NE | 0.000 | 0.000 | 0.139 | 0.278 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.464 |
| ENE | 0.000 | 0.000 | 0.000 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.093 |
| E | 0.000 | 0.000 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.093 |
| ESE | 0.000 | 0.000 | 0.046 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.093 |
| SE | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.093 |
| SSE | 0.000 | 0.000 | 0.093 | 0.139 | 0.093 | 0.093 | 0.000 | 0.000 | 0.000 | 0.417 |
| S | 0.000 | 0.046 | 0.000 | 0.139 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.325 |
| SSW | 0.000 | 0.000 | 0.139 | 0.000 | 0.371 | 0.000 | 0.000 | 0.000 | 0.000 | 0.510 |
| SW | 0.000 | 0.000 | 0.000 | 0.232 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.232 |
| 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 | 0.046 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.093 |
| NW | 0.000 | 0.046 | 0.000 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.093 |
| NNW | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 |
| SUBTOTAL | 0.000 | 0.139 | 0.834 | 2.133 | 1.530 | 0.371 | 0.000 | 0.000 | 0.000 | 5.007 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2186
 TOTAL HOURS OF STABILITY CLASS A 110
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A 108
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2157
 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: 2021/11/01

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

SEQUOYAH NUCLEAR PLANT

JUL 1, 2021 - SEP 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.139 | 0.232 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.417 |
| NNE | 0.000 | 0.000 | 0.093 | 0.742 | 0.232 | 0.046 | 0.000 | 0.000 | 0.000 | 1.113 |
| NE | 0.000 | 0.000 | 0.325 | 0.232 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.556 |
| ENE | 0.000 | 0.000 | 0.093 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.139 |
| E | 0.000 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.093 |
| ESE | 0.000 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 |
| SE | 0.000 | 0.000 | 0.093 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.185 |
| SSE | 0.000 | 0.000 | 0.093 | 0.000 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.185 |
| S | 0.000 | 0.000 | 0.046 | 0.093 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.232 |
| SSW | 0.000 | 0.000 | 0.093 | 0.510 | 0.232 | 0.000 | 0.000 | 0.000 | 0.000 | 0.834 |
| SW | 0.000 | 0.000 | 0.093 | 0.325 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.464 |
| 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 | 0.046 | 0.093 | 0.046 | 0.000 | 0.000 | 0.000 | 0.185 |
| SUBTOTAL | 0.000 | 0.046 | 1.159 | 2.318 | 0.742 | 0.185 | 0.000 | 0.000 | 0.000 | 4.451 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2186
 TOTAL HOURS OF STABILITY CLASS B 99
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 96
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2157
 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: 2021/11/01

MEAN WIND SPEED = 4.52

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, 2021 - SEP 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.093 | 0.278 | 0.185 | 0.000 | 0.000 | 0.000 | 0.000 | 0.556 |
| NNE | 0.000 | 0.000 | 0.371 | 0.834 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 1.298 |
| NE | 0.000 | 0.000 | 0.695 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.834 |
| ENE | 0.000 | 0.000 | 0.093 | 0.093 | 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 | 0.000 | 0.046 | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.093 |
| SE | 0.000 | 0.000 | 0.093 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.232 |
| SSE | 0.000 | 0.000 | 0.093 | 0.185 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.278 |
| S | 0.000 | 0.046 | 0.139 | 0.232 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.510 |
| SSW | 0.000 | 0.000 | 0.417 | 1.623 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 2.179 |
| SW | 0.000 | 0.000 | 0.464 | 0.603 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 1.113 |
| 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 | 0.093 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.139 |
| SUBTOTAL | 0.000 | 0.046 | 2.643 | 4.219 | 0.603 | 0.046 | 0.000 | 0.000 | 0.000 | 7.557 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2186
 TOTAL HOURS OF STABILITY CLASS C 165
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C 163
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2157
 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: 2021/11/01

MEAN WIND SPEED = 3.94

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, 2021 - SEP 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.093 | 2.689 | 1.159 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 4.033 |
| NNE | 0.000 | 0.046 | 2.364 | 1.715 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 4.265 |
| NE | 0.000 | 0.000 | 0.881 | 0.232 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.113 |
| ENE | 0.000 | 0.093 | 0.371 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.510 |
| E | 0.000 | 0.093 | 0.510 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.603 |
| ESE | 0.000 | 0.000 | 0.417 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.510 |
| SE | 0.000 | 0.000 | 0.974 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.066 |
| SSE | 0.000 | 0.046 | 0.742 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.113 |
| S | 0.000 | 0.093 | 3.106 | 2.133 | 0.325 | 0.046 | 0.000 | 0.000 | 0.000 | 5.702 |
| SSW | 0.000 | 0.185 | 4.265 | 3.338 | 0.232 | 0.000 | 0.000 | 0.000 | 0.000 | 8.020 |
| SW | 0.000 | 0.046 | 2.179 | 0.834 | 0.232 | 0.000 | 0.000 | 0.000 | 0.000 | 3.292 |
| WSW | 0.000 | 0.093 | 1.020 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.437 |
| W | 0.000 | 0.046 | 0.278 | 0.185 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.556 |
| WNW | 0.000 | 0.046 | 0.093 | 0.139 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.325 |
| NW | 0.000 | 0.278 | 0.464 | 0.417 | 0.232 | 0.046 | 0.000 | 0.000 | 0.000 | 1.437 |
| NNW | 0.000 | 0.185 | 0.556 | 0.556 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 | 1.623 |
| SUBTOTAL | 0.000 | 1.344 | 20.909 | 11.590 | 1.669 | 0.093 | 0.000 | 0.000 | 0.000 | 35.605 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2186
 TOTAL HOURS OF STABILITY CLASS D 770
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 768
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2157
 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: 2021/11/01

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

SEQUOYAH NUCLEAR PLANT

JUL 1, 2021 - SEP 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 1.669 | 7.000 | 0.834 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 9.597 |
| NNE | 0.000 | 1.623 | 2.782 | 0.325 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 4.775 |
| NE | 0.000 | 0.371 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.695 |
| ENE | 0.000 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.139 |
| E | 0.000 | 0.185 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.325 |
| ESE | 0.000 | 0.278 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.325 |
| SE | 0.000 | 0.325 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.464 |
| SSE | 0.000 | 0.232 | 0.881 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.113 |
| S | 0.000 | 0.695 | 0.927 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.669 |
| SSW | 0.000 | 0.603 | 1.901 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 2.550 |
| SW | 0.000 | 0.417 | 2.689 | 0.510 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 3.662 |
| WSW | 0.000 | 0.278 | 1.484 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 2.086 |
| W | 0.000 | 0.695 | 0.834 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.669 |
| WNW | 0.000 | 0.649 | 0.556 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 1.298 |
| NW | 0.000 | 0.649 | 0.742 | 0.093 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 1.576 |
| NNW | 0.000 | 1.020 | 2.179 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.523 |
| SUBTOTAL | 0.000 | 9.828 | 22.624 | 2.689 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 | 35.466 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2186
 TOTAL HOURS OF STABILITY CLASS E 776
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 765
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2157
 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: 2021/11/01

MEAN WIND SPEED = 2.06

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, 2021 - SEP 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.788 | 3.848 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 4.682 |
| NNE | 0.000 | 1.066 | 1.994 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.060 |
| NE | 0.000 | 0.510 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.603 |
| ENE | 0.000 | 0.139 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.232 |
| E | 0.000 | 0.185 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.278 |
| ESE | 0.000 | 0.278 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.371 |
| SE | 0.000 | 0.232 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.232 |
| SSE | 0.000 | 0.139 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.185 |
| S | 0.000 | 0.185 | 0.185 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.371 |
| SSW | 0.000 | 0.046 | 0.139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.185 |
| SW | 0.000 | 0.093 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.185 |
| 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 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.093 |
| WNW | 0.000 | 0.000 | 0.185 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.185 |
| NW | 0.000 | 0.000 | 0.232 | 0.093 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.325 |
| NNW | 0.000 | 0.093 | 0.510 | 0.185 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.788 |
| SUBTOTAL | 0.000 | 3.755 | 7.742 | 0.325 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 11.822 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2186
 TOTAL HOURS OF STABILITY CLASS F 264
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F 255
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2157
 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: 2021/11/01

MEAN WIND SPEED = 1.76

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, 2021 - SEP 30, 2021

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL | |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | | |
| N | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| NNE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| NE | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| ENE | 0.000 | 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 | 0.000 | 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 | 0.000 |
| SE | 0.000 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 |
| SSE | 0.000 | 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 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 |
| SSW | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| SW | 0.000 | 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 | 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 |
| WNW | 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 | 0.000 | 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 | 0.000 |
| SUBTOTAL | 0.000 | 0.046 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.093 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2186
 TOTAL HOURS OF STABILITY CLASS G 2
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G 2
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2157
 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: 2021/11/01

MEAN WIND SPEED = 1.55

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

JAN 1, 2009 - DEC 31, 2018

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.023 | 0.092 | 0.141 | 0.139 | 0.000 | 0.000 | 0.000 | 0.396 |
| NNE | 0.000 | 0.000 | 0.084 | 0.528 | 0.537 | 0.320 | 0.005 | 0.000 | 0.000 | 1.473 |
| NE | 0.000 | 0.001 | 0.136 | 0.404 | 0.256 | 0.092 | 0.001 | 0.000 | 0.000 | 0.890 |
| ENE | 0.000 | 0.001 | 0.049 | 0.087 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.143 |
| E | 0.000 | 0.000 | 0.017 | 0.023 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.041 |
| ESE | 0.000 | 0.000 | 0.015 | 0.030 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.047 |
| SE | 0.000 | 0.000 | 0.015 | 0.032 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.051 |
| SSE | 0.000 | 0.000 | 0.008 | 0.030 | 0.025 | 0.014 | 0.000 | 0.000 | 0.000 | 0.077 |
| S | 0.000 | 0.000 | 0.009 | 0.079 | 0.109 | 0.054 | 0.000 | 0.000 | 0.000 | 0.252 |
| SSW | 0.000 | 0.000 | 0.023 | 0.399 | 0.506 | 0.155 | 0.000 | 0.000 | 0.000 | 1.083 |
| SW | 0.000 | 0.000 | 0.025 | 0.434 | 0.269 | 0.066 | 0.000 | 0.000 | 0.000 | 0.793 |
| WSW | 0.000 | 0.000 | 0.005 | 0.033 | 0.037 | 0.016 | 0.000 | 0.000 | 0.000 | 0.091 |
| W | 0.000 | 0.000 | 0.003 | 0.009 | 0.048 | 0.049 | 0.005 | 0.000 | 0.000 | 0.115 |
| WNW | 0.000 | 0.000 | 0.000 | 0.013 | 0.045 | 0.063 | 0.000 | 0.000 | 0.000 | 0.121 |
| NW | 0.000 | 0.000 | 0.001 | 0.014 | 0.067 | 0.100 | 0.000 | 0.000 | 0.000 | 0.182 |
| NNW | 0.000 | 0.000 | 0.002 | 0.017 | 0.070 | 0.113 | 0.001 | 0.000 | 0.000 | 0.204 |
| SUBTOTAL | 0.000 | 0.002 | 0.416 | 2.224 | 2.123 | 1.181 | 0.011 | 0.000 | 0.000 | 5.958 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 87160
 TOTAL HOURS OF STABILITY CLASS A 5183
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A 5181
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 86963
 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: 2020/07/17

MEAN WIND SPEED = 5.95

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, 2009 - DEC 31, 2018

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.000 | 0.013 | 0.078 | 0.097 | 0.092 | 0.001 | 0.000 | 0.000 | 0.281 |
| NNE | 0.000 | 0.000 | 0.079 | 0.298 | 0.240 | 0.122 | 0.005 | 0.000 | 0.000 | 0.744 |
| NE | 0.000 | 0.000 | 0.131 | 0.195 | 0.060 | 0.026 | 0.000 | 0.000 | 0.000 | 0.413 |
| ENE | 0.000 | 0.002 | 0.052 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.083 |
| E | 0.000 | 0.000 | 0.030 | 0.013 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.044 |
| ESE | 0.000 | 0.000 | 0.032 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.045 |
| SE | 0.000 | 0.000 | 0.016 | 0.036 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.055 |
| SSE | 0.000 | 0.000 | 0.015 | 0.029 | 0.010 | 0.007 | 0.000 | 0.000 | 0.000 | 0.061 |
| S | 0.000 | 0.000 | 0.034 | 0.103 | 0.077 | 0.047 | 0.001 | 0.000 | 0.000 | 0.263 |
| SSW | 0.000 | 0.000 | 0.051 | 0.565 | 0.346 | 0.132 | 0.000 | 0.000 | 0.000 | 1.094 |
| SW | 0.000 | 0.000 | 0.056 | 0.367 | 0.162 | 0.030 | 0.001 | 0.000 | 0.000 | 0.616 |
| WSW | 0.000 | 0.001 | 0.015 | 0.036 | 0.021 | 0.014 | 0.002 | 0.000 | 0.000 | 0.089 |
| W | 0.000 | 0.000 | 0.000 | 0.007 | 0.022 | 0.031 | 0.000 | 0.000 | 0.000 | 0.060 |
| WNW | 0.000 | 0.000 | 0.001 | 0.021 | 0.028 | 0.030 | 0.003 | 0.000 | 0.000 | 0.083 |
| NW | 0.000 | 0.000 | 0.002 | 0.017 | 0.057 | 0.038 | 0.001 | 0.000 | 0.000 | 0.116 |
| NNW | 0.000 | 0.000 | 0.001 | 0.021 | 0.055 | 0.069 | 0.001 | 0.000 | 0.000 | 0.147 |
| SUBTOTAL | 0.000 | 0.003 | 0.529 | 1.826 | 1.180 | 0.638 | 0.016 | 0.000 | 0.000 | 4.193 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 87160
 TOTAL HOURS OF STABILITY CLASS B 3655
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 3646
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 86963
 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: 2020/07/17

MEAN WIND SPEED = 5.49

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, 2009 - DEC 31, 2018

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.001 | 0.034 | 0.103 | 0.144 | 0.082 | 0.001 | 0.000 | 0.000 | 0.366 |
| NNE | 0.000 | 0.000 | 0.117 | 0.348 | 0.251 | 0.141 | 0.009 | 0.000 | 0.000 | 0.867 |
| NE | 0.000 | 0.001 | 0.225 | 0.199 | 0.064 | 0.024 | 0.000 | 0.000 | 0.000 | 0.514 |
| ENE | 0.000 | 0.000 | 0.086 | 0.024 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.114 |
| E | 0.000 | 0.000 | 0.068 | 0.014 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.083 |
| ESE | 0.000 | 0.000 | 0.054 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.075 |
| SE | 0.000 | 0.000 | 0.047 | 0.045 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.094 |
| SSE | 0.000 | 0.001 | 0.051 | 0.059 | 0.014 | 0.008 | 0.000 | 0.000 | 0.000 | 0.132 |
| S | 0.000 | 0.000 | 0.066 | 0.209 | 0.103 | 0.047 | 0.000 | 0.000 | 0.000 | 0.425 |
| SSW | 0.000 | 0.000 | 0.168 | 0.842 | 0.347 | 0.098 | 0.000 | 0.000 | 0.000 | 1.455 |
| SW | 0.000 | 0.001 | 0.166 | 0.452 | 0.193 | 0.038 | 0.000 | 0.000 | 0.000 | 0.850 |
| WSW | 0.000 | 0.000 | 0.037 | 0.052 | 0.031 | 0.017 | 0.000 | 0.000 | 0.000 | 0.137 |
| W | 0.000 | 0.000 | 0.007 | 0.026 | 0.038 | 0.028 | 0.000 | 0.000 | 0.000 | 0.099 |
| WNW | 0.000 | 0.000 | 0.007 | 0.018 | 0.036 | 0.038 | 0.003 | 0.000 | 0.000 | 0.102 |
| NW | 0.000 | 0.000 | 0.001 | 0.032 | 0.068 | 0.053 | 0.002 | 0.000 | 0.000 | 0.156 |
| NNW | 0.000 | 0.001 | 0.011 | 0.048 | 0.072 | 0.080 | 0.001 | 0.000 | 0.000 | 0.215 |
| SUBTOTAL | 0.000 | 0.006 | 1.145 | 2.493 | 1.368 | 0.654 | 0.017 | 0.000 | 0.000 | 5.684 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 87160
 TOTAL HOURS OF STABILITY CLASS C 4950
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C 4943
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 86963
 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: 2020/07/17

MEAN WIND SPEED = 5.08

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, 2009 - DEC 31, 2018

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.057 | 1.080 | 1.192 | 1.066 | 0.669 | 0.007 | 0.000 | 0.000 | 4.072 |
| NNE | 0.000 | 0.054 | 1.524 | 2.199 | 1.610 | 1.097 | 0.036 | 0.001 | 0.000 | 6.520 |
| NE | 0.000 | 0.056 | 0.961 | 0.430 | 0.114 | 0.059 | 0.002 | 0.000 | 0.000 | 1.623 |
| ENE | 0.000 | 0.028 | 0.340 | 0.044 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.414 |
| E | 0.000 | 0.017 | 0.233 | 0.031 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.283 |
| ESE | 0.000 | 0.016 | 0.216 | 0.017 | 0.005 | 0.001 | 0.000 | 0.000 | 0.000 | 0.255 |
| SE | 0.000 | 0.034 | 0.286 | 0.072 | 0.010 | 0.002 | 0.000 | 0.000 | 0.000 | 0.406 |
| SSE | 0.000 | 0.034 | 0.522 | 0.186 | 0.071 | 0.074 | 0.002 | 0.000 | 0.000 | 0.890 |
| S | 0.000 | 0.086 | 1.486 | 1.305 | 0.511 | 0.365 | 0.010 | 0.000 | 0.000 | 3.763 |
| SSW | 0.000 | 0.057 | 2.278 | 3.002 | 0.972 | 0.368 | 0.002 | 0.000 | 0.000 | 6.680 |
| SW | 0.000 | 0.061 | 1.452 | 1.458 | 0.538 | 0.175 | 0.003 | 0.000 | 0.000 | 3.688 |
| WSW | 0.000 | 0.059 | 0.396 | 0.273 | 0.176 | 0.136 | 0.005 | 0.000 | 0.000 | 1.043 |
| W | 0.000 | 0.045 | 0.205 | 0.246 | 0.182 | 0.174 | 0.008 | 0.000 | 0.000 | 0.859 |
| WNW | 0.000 | 0.033 | 0.166 | 0.197 | 0.214 | 0.191 | 0.003 | 0.000 | 0.000 | 0.804 |
| NW | 0.000 | 0.048 | 0.225 | 0.375 | 0.406 | 0.227 | 0.002 | 0.000 | 0.000 | 1.283 |
| NNW | 0.000 | 0.057 | 0.417 | 0.552 | 0.634 | 0.379 | 0.005 | 0.000 | 0.000 | 2.045 |
| SUBTOTAL | 0.001 | 0.745 | 11.788 | 11.580 | 6.511 | 3.915 | 0.086 | 0.001 | 0.000 | 34.627 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 87160
 TOTAL HOURS OF STABILITY CLASS D 30159
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 30113
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 86963
 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: 2020/07/17

MEAN WIND SPEED = 4.59

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, 2009 - DEC 31, 2018

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.002 | 0.522 | 3.160 | 1.133 | 0.255 | 0.040 | 0.000 | 0.000 | 0.000 | 5.112 |
| NNE | 0.002 | 0.537 | 3.391 | 1.471 | 0.373 | 0.049 | 0.001 | 0.000 | 0.000 | 5.824 |
| NE | 0.001 | 0.324 | 0.639 | 0.125 | 0.014 | 0.002 | 0.000 | 0.000 | 0.000 | 1.106 |
| ENE | 0.000 | 0.167 | 0.137 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.309 |
| E | 0.000 | 0.139 | 0.106 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.253 |
| ESE | 0.000 | 0.124 | 0.124 | 0.008 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.258 |
| SE | 0.000 | 0.162 | 0.227 | 0.031 | 0.005 | 0.001 | 0.000 | 0.000 | 0.000 | 0.426 |
| SSE | 0.000 | 0.221 | 0.450 | 0.135 | 0.057 | 0.034 | 0.000 | 0.000 | 0.000 | 0.897 |
| S | 0.001 | 0.360 | 1.367 | 0.584 | 0.329 | 0.268 | 0.006 | 0.000 | 0.000 | 2.915 |
| SSW | 0.002 | 0.343 | 2.710 | 1.099 | 0.528 | 0.193 | 0.001 | 0.000 | 0.000 | 4.876 |
| SW | 0.002 | 0.299 | 2.595 | 1.015 | 0.247 | 0.092 | 0.000 | 0.000 | 0.000 | 4.251 |
| WSW | 0.001 | 0.206 | 1.044 | 0.269 | 0.078 | 0.036 | 0.001 | 0.000 | 0.000 | 1.635 |
| W | 0.000 | 0.204 | 0.527 | 0.155 | 0.048 | 0.024 | 0.002 | 0.000 | 0.000 | 0.961 |
| WNW | 0.000 | 0.155 | 0.407 | 0.136 | 0.071 | 0.016 | 0.000 | 0.000 | 0.000 | 0.786 |
| NW | 0.000 | 0.212 | 0.574 | 0.264 | 0.089 | 0.031 | 0.000 | 0.000 | 0.000 | 1.170 |
| NNW | 0.001 | 0.285 | 1.219 | 0.534 | 0.133 | 0.033 | 0.000 | 0.000 | 0.000 | 2.205 |
| SUBTOTAL | 0.013 | 4.259 | 18.677 | 6.973 | 2.229 | 0.821 | 0.011 | 0.000 | 0.000 | 32.983 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 87160
 TOTAL HOURS OF STABILITY CLASS E 28777
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 28683
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 86963
 TOTAL HOURS CALM 11

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: 2020/07/17

MEAN WIND SPEED = 3.02

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, 2009 - DEC 31, 2018

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|--------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.002 | 0.267 | 1.709 | 0.149 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 2.131 |
| NNE | 0.004 | 0.528 | 3.319 | 0.155 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 4.013 |
| NE | 0.001 | 0.419 | 0.726 | 0.036 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 1.183 |
| ENE | 0.000 | 0.202 | 0.098 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.304 |
| E | 0.000 | 0.178 | 0.075 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.257 |
| ESE | 0.000 | 0.136 | 0.047 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.184 |
| SE | 0.000 | 0.191 | 0.070 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.262 |
| SSE | 0.000 | 0.207 | 0.146 | 0.006 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.360 |
| S | 0.001 | 0.250 | 0.394 | 0.028 | 0.006 | 0.003 | 0.000 | 0.000 | 0.000 | 0.681 |
| SSW | 0.001 | 0.170 | 0.960 | 0.129 | 0.011 | 0.001 | 0.000 | 0.000 | 0.000 | 1.273 |
| SW | 0.001 | 0.114 | 0.824 | 0.137 | 0.015 | 0.002 | 0.000 | 0.000 | 0.000 | 1.093 |
| WSW | 0.000 | 0.036 | 0.218 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.283 |
| W | 0.000 | 0.037 | 0.112 | 0.018 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.170 |
| WNW | 0.000 | 0.028 | 0.077 | 0.017 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.123 |
| NW | 0.000 | 0.040 | 0.145 | 0.038 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.224 |
| NNW | 0.001 | 0.074 | 0.377 | 0.089 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.548 |
| SUBTOTAL | 0.014 | 2.875 | 9.297 | 0.837 | 0.061 | 0.008 | 0.000 | 0.000 | 0.000 | 13.092 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 87160
 TOTAL HOURS OF STABILITY CLASS F 11420
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F 11385
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 86963
 TOTAL HOURS CALM 12

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: 2020/07/17

MEAN WIND SPEED = 2.09

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, 2009 - DEC 31, 2018

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | | | | TOTAL |
|-------------------|------------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|---------|-------|
| | CALM | 0.60-1.40 | 1.41-3.40 | 3.41-5.40 | 5.41-7.40 | 7.41-12.40 | 12.41-18.40 | 18.41-24.40 | >=24.41 | |
| N | 0.000 | 0.015 | 0.070 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.086 |
| NNE | 0.001 | 0.080 | 0.496 | 0.021 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.599 |
| NE | 0.001 | 0.159 | 0.397 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.570 |
| ENE | 0.000 | 0.123 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.181 |
| E | 0.000 | 0.103 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.127 |
| ESE | 0.000 | 0.100 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.128 |
| SE | 0.000 | 0.106 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.135 |
| SSE | 0.000 | 0.170 | 0.046 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.216 |
| S | 0.000 | 0.163 | 0.183 | 0.002 | 0.000 | 0.001 | 0.000 | 0.000 | 0.000 | 0.350 |
| SSW | 0.001 | 0.108 | 0.440 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.578 |
| SW | 0.000 | 0.031 | 0.299 | 0.032 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.363 |
| WSW | 0.000 | 0.017 | 0.025 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.046 |
| W | 0.000 | 0.009 | 0.008 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.023 |
| WNW | 0.000 | 0.006 | 0.005 | 0.001 | 0.000 | 0.001 | 0.000 | 0.000 | 0.000 | 0.013 |
| NW | 0.000 | 0.009 | 0.003 | 0.005 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.018 |
| NNW | 0.000 | 0.008 | 0.011 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.031 |
| SUBTOTAL | 0.005 | 1.209 | 2.120 | 0.125 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 3.464 |

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 87160
 TOTAL HOURS OF STABILITY CLASS G 3016
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G 3012
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 86963
 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: 2020/07/17

MEAN WIND SPEED = 1.86

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS