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10 CFR 50.4  
10 CFR 50.36 §a  
10 CFR 50 Appendix I

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

Browns Ferry Nuclear Plant, Units 1, 2, and 3  
Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68  
NRC Docket Nos. 50-259, 50-260, and 50-296

Subject: **2020 Annual Radioactive Effluent Release Report**

In accordance with the Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3, Technical Specification Section 5.6.3, the Tennessee Valley Authority is submitting the BFN Annual Radioactive Effluent Release Report for the period January through December 2020. This document is in conformance with Title 10 of the Code of Federal Regulations (10 CFR) 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

There are no new regulatory commitments contained in this letter. Should you have any questions concerning this submittal, please contact Jamie Paul at (256) 729-2636.

Respectfully,

A handwritten signature in black ink, appearing to read 'M. M. Rasmussen', with a long horizontal flourish extending to the right.

M. M. Rasmussen  
Site Vice President

Enclosure: 2020 Annual Radioactive Effluent Release Report

cc (w/ Enclosures):

NRC Regional Administrator - Region II  
NRC Senior Resident Inspector - Browns Ferry Nuclear Plant  
NRC Project Manager - Browns Ferry Nuclear Plant

**ENCLOSURE**

**Browns Ferry Nuclear Plant  
Units 1, 2, and 3**

**2020 Annual Radioactive Effluent Release Report**

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**See Enclosed**

# Browns Ferry Nuclear Plant

Tennessee Valley Authority

## Annual Radioactive Effluent Release Report

2020



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## I. Supplemental Information

### A. Regulatory Limits

#### 1. Gaseous Effluents

##### **Fission and Activation Gases**

The release of fission and activation gases is regulated by the dose limits of Title 10 of the Code of Federal Regulations (10 CFR) 50 Appendix I and Browns Ferry Nuclear Plant (BFN) Offsite Dose Calculation Manual (ODCM). The air dose to areas at and beyond the site boundary due to noble gases released in gaseous effluents per unit shall be limited during any calendar quarter to  $\leq 5$  millirad (mrad) for gamma radiation and  $\leq 10$  mrad for beta radiation; and during any calendar year to  $\leq 10$  mrad for gamma radiation and  $\leq 20$  mrad for beta radiation.

##### **Iodines and Particulates with Half-Lives Greater than Eight Days**

The release of iodines and particulates in gaseous effluent is regulated by the dose limits of 10 CFR 50 Appendix I and the BFN ODCM. The dose to a member of the public from radioiodines, radioactive materials in particulate form, and radionuclides other than noble gases with half-lives greater than eight days in gaseous effluent released per unit to areas at and beyond the site boundary shall be limited to any organ during any calendar quarter to  $\leq 7.5$  millirem (mrem), and during any calendar year to  $\leq 15$  mrem.

#### 2. Liquid Effluents

The release of radioactive liquid effluents is regulated by the dose limits of 10 CFR 50 Appendix I and the BFN ODCM. The doses or dose commitment to a member of the public from radioactive materials in liquid effluents released from each unit to unrestricted areas shall be limited during any calendar quarter to  $\leq 1.5$  mrem to the total body and  $\leq 5$  mrem to any organ and during any calendar year to  $\leq 3$  mrem to the total body and  $\leq 10$  mrem to any organ.

### B. Limitation on Dose Rate

#### 1. Gaseous Effluents

##### **Fission and Activation Gases**

The instantaneous release rate of fission and activation gases is based on the dose rate limits of 10 CFR 20.1301 and the BFN ODCM. The dose rate at any time to areas at and beyond the site boundary due to noble gases released in gaseous effluents from the site shall be limited to  $\leq 500$  mrem per year to the total body and  $\leq 3000$  mrem per year to the skin.

The BFN ODCM Section 7.2 determines the maximum noble gas release rate.

##### **Iodines and Particulates with Half-Lives Greater than Eight Days**

The instantaneous release rate of particulates and iodines is regulated by the dose rate limits of the BFN ODCM. The dose rate at any time to areas at and beyond the site boundary, due to I-131, I-133, H-3, and particulates with half-lives greater than eight days

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in gaseous effluent released from the site, shall be limited to  $\leq 1500$  mrem per year to any organ. The BFN ODCM Section 7.3 determines the maximum particulate and iodine dose rates.

2. Liquid Effluents

The concentration of radionuclides in liquid effluents released at any time from the site to unrestricted areas shall be limited to the concentrations specified in 10 CFR 20.1001-20.2402, 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  $2E-4$   $\mu\text{Ci}$  per milliliter (ml) total activity.

C. Average Energy

The BFN ODCM limits the dose equivalent rates due to the release of noble gases to less than or equal to 500 mrem/year to the total body and less than or equal to 3000 mrem/year to the skin. The use of dose rate is in accordance with NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants." Since the release rate is not used for effluent control, the average beta and gamma energies (E) for gaseous effluents discussed in Regulatory Guide 1.21, "Measuring, Evaluation, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," are not applicable and not included in this report.

D. Measurements & Approximations of Total Radioactivity

Radioactivity measurements performed in support of the Browns Ferry Nuclear Plant ODCM meet the Lower Limit of Detection (LLD) requirements given in ODCM Tables 2.2-1 and 2.2-2.

1. Gaseous Effluents

Noble gases in the building vent and stack (elevated) gaseous effluents are continuously monitored. The flow rate of the stack is continuously monitored and the building vent effluent flow rates are calculated once a shift based on the configuration of operating exhaust fans. The vent flow is calculated for each release. Gas grab samples of the stack are taken and analyzed weekly. Gas grab samples of in-service vents are taken and analyzed monthly. The specific noble gas activity concentrations and total volume of the gases are used to calculate the total Curies (Ci) of noble gases released.

In 2019, Browns Ferry revised noble gas sampling and analysis procedures which included sampling with a larger volume (1240 cc gas Marinelli) and analyzing for a longer count time (1000 seconds). Since this revision, the site has detected low levels of noble gases in the stack vent, which is expected.

The tritium concentration is determined by the analysis of a monthly grab sample for each release point.

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Iodines and particulates are continuously sampled on impregnated charcoal filters and particulate filters, respectively. The charcoal and particulate samples are replaced at least weekly and analyzed to determine specific activity concentrations. The specific

activity concentrations and vent flow rate data are used weekly to verify that release rate limits were not exceeded. The specific activity concentrations and total volume of gaseous effluent are used on a monthly basis to determine the total curies of each particulate and iodine released during the month.

The gross alpha concentration is determined by analysis of a monthly particulate filter composite sample, and strontium-89 and strontium-90 are determined by analysis of a quarterly particulate filter composite sample for each release point.

Carbon-14 (C-14) production and gaseous waste effluent activity source term estimates were based on methodology provided in EPRI 1021106 *Estimation of Carbon-14 in Nuclear Power Plant Gaseous Effluents* (December 2010). C-14 gaseous activity and dose calculations are made using the following assumptions: (1) continuous release of the estimated C-14 generated for each unit during power operation based on the number of Effective Fuel Power Days (EFPD) for the period, (2) maximum C-14 activity from literature values cited in EPRI Report 1021106, and (3) typical fraction as carbon dioxide for gaseous releases from literature values also cited in EPRI Report 1021106.

In 2019, Browns Ferry updated C-14 production rate estimates utilizing the proxy methodology provided in EPRI Report 1021106. TVA documented this update in *Updated Carbon-14 Production Rate Estimates for Gaseous Releases at TVA NPG Sites* (October 2019). The C-14 releases increased in 2019 due to all three units completing Extended Power Uprate (EPU). The EPU for each unit increased the units' MWth (Megawatt thermal) from 3,458 to 3,952 MWth. This increase in MWth is used in the calculation of C-14 releases. The increase in C-14 releases is expected.

## 2. Liquid Effluents

The gamma ray emitting radionuclide concentrations are determined for each batch by gamma ray spectroscopy analysis of a grab sample. The allowable release rate is calculated for each batch based upon the known dilution flow. The flow rate of the liquid effluent is continuously monitored and the total volume released in each batch is determined. The total gamma activity released in each batch is determined by multiplying the radionuclide concentrations by the total volume discharged. The total gamma activity released during the month is then determined by summing the gamma activity content of each batch discharged during the month.

The gross alpha and tritium concentrations are measured on a monthly composite sample. The strontium-89, strontium-90, and iron-55 are measured on a quarterly composite sample.

The Radioactive Gaseous and Liquid Waste Monitoring Sampling and Analysis Program is specified in ODCM Sections 1/2.2.1 and 1/2.2.2. There were no liquid or gaseous concentrations or dose limits exceeded in the 2020 reporting period.



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E. Batch Releases

1. Gaseous

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

1. Gaseous

1. Number of Batch Releases	Each	1	3	1	1	6
2. Total duration of batch releases	minutes	4.80E+01	1.44E+02	4.80E+01	4.80E+01	2.88E+02
3. Maximum batch release duration	minutes	4.80E+01	4.80E+01	4.80E+01	4.80E+01	4.80E+01
4. Average batch release duration	minutes	4.80E+01	4.80E+01	4.80E+01	4.80E+01	4.80E+01
5. Minimum batch release duration	minutes	4.80E+01	4.80E+01	4.80E+01	4.80E+01	4.80E+01

2. Liquid

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

2. Liquids

1. Number of Batch Releases	Each	14	25	9	24	72
2. Total duration of batch releases	minutes	4.37E+03	6.32E+03	2.81E+03	7.55E+02	2.10E+04
3. Maximum batch release duration	minutes	4.20E+02	4.15E+02	4.25E+02	5.85E+02	5.85E+02
4. Average batch release duration	minutes	3.12E+02	2.53E+02	3.12E+02	3.14E+02	2.92E+02
5. Minimum batch release duration	minutes	1.00E+00	2.20E+02	2.55E+02	2.15E+02	1.00E+00
6. Avg. stream flow during periods of release of liquid effluent into a flowing stream	CFS	1.40E+05	6.81E+04	2.95E+04	5.79E+04	NA

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F. Abnormal Releases

1. Gaseous

Abnormal gaseous tritium releases occurred 2020 from the Auxiliary Boiler System when the boilers were in service for unit outages and winter months. The identified source of tritium to the auxiliary boiler system is main steam leak-by from degraded Steam Jet Air Ejector (SJAE) / Auxiliary Boiler valves to the auxiliary boiler header (CR 1508177). Beginning in 2022, these valves will be replaced during each unit's respective outage.

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

1. Gaseous

1. Number of abnormal Releases	Each	1	1	0	1	3
2. Total Activity for abnormal releases	Ci	8.89E-02	3.54E-02	0.0E+00	3.61E-01	4.85E-01

2. Liquid

Abnormal liquid tritium releases occurred throughout 2020 from the Unit 1 and Unit 2 Station Sumps. Plant station sumps are auto-pumped to unit specific Condenser Circulating Water (CCW) discharge and subsequently to the Tennessee River. Identified sources include: main steam leak-by from degraded SJAE / Auxiliary boiler system valves to Unit 1 Station Sump, Vacuum Priming system and multiple steam leaks in the SJAE and Offgas Recombiner rooms.

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

2. Liquid

1. Number of abnormal Releases	Each	2	2	2	2	8
2. Total Activity for abnormal releases	Ci	4.96E-01	1.20E+00	4.74E-01	5.44E-01	2.72E+00

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G. Non-routine, Planned Discharges

In calendar year 2020 there were no non-routine planned discharges.

H. Radioactive Waste System Treatment Changes

In calendar year 2020 Radwaste Train B of the AvanTech System was placed in service. There were no changes to the Process Control Program (PCP).

I. Land Use Census Changes

In calendar year 2020 there were no changes to the land use census.

J. Effluent Monitoring Instrument Inoperability > 30 Days

In calendar year 2020 there was one radwaste liquid flow indicator and two gaseous effluent monitors inoperable for greater than 30 days.

1. The Liquid Radwaste Discharge Flow Indicator, 0-FIC-77-0060, was declared inoperable 10/25/2019 during performance of 0-SI-4.8.A.1-1 due to the average flowrate being outside the acceptance criteria of 8%. The 0-FIC-077-0060 was returned to service 2/18/2021. (CR 1560354, CR 1568432, LCOTR# 0-077-ODCM-2019-0001).
2. Gaseous effluent continuous radiation monitor, 3-RM-90-250, was declared inoperable 1/25/2020 due to sample pump abnormal alarm. The radiation monitor was returned to service 2/26/2020. The radiation monitor was inoperable for this duration due to awaiting a new sample pump. (CR 1581730, CR 1590022, WO 121064413, LCOTR# 3-090-ODCM-2020-0018).
3. Gaseous effluent continuous radiation monitor, 2-RM-90-249, was declared inoperable 11/2/2020 due to communication channel failure. The radiation monitor was returned to service 1/29/2021. Due to requiring a replacement CPU and monitor computers are obsolete, Design Change BFN-20-1914 was implemented (CR 1649408, CR 1660950, WO 121735665, LCOTR# 2-090-ODCM-2020-0054).

K. Effluent Monitoring Equipment Sample Deviation

In calendar year 2020 there were no effluent monitoring equipment sample deviations.

L. Offsite Dose Calculation Manual Changes

In calendar year 2020 there were no changes to the Offsite Dose Calculation Manual.

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

In 2007, the Nuclear Energy Institute (NEI) established the Groundwater Protection Initiative (GPI), NEI 07-07. The Groundwater Protection Initiative was established to 1) improve management of situations involving inadvertent radiological releases that get into groundwater and 2) to improve communication with external stakeholders to enhance trust and confidence on the part of local communities, States, the NRC, and the public in the nuclear industry's commitment to a high standard of public radiation safety and protection of the environment. This section provides information and sample results from on-site groundwater locations that were sampled in support of the Groundwater Protection Initiative at Browns Ferry Nuclear Plant. The groundwater wells described in this section are not part of the Radiological Environmental Monitoring Program (REMP).

In the early 2000s, BFN initiated a groundwater study to identify the source of low level tritium detected on-site. Results from the groundwater study (Investigation of Tritium Releases to Groundwater, 2006), suggest the source of tritiated groundwater was from historical leaks and spills associated with Radwaste/Condensate transfer tunnel. Groundwater and surface water level measurements during the study indicated the return channel and subsequently the Tennessee River will ultimately be recipient to tritiated groundwater discharge from the site. It has been determined that there are no groundwater wells onsite or within 2-miles of the site that are used as a source of drinking water. Groundwater movement in the area has been determined to be from the plant site toward the Tennessee River.

On-site groundwater monitoring was performed in 2020. The purpose of on-site groundwater monitoring is to ensure timely detection of inadvertent radiological releases to groundwater. Non-REMP groundwater wells monitor for potential leaks from plant equipment. As part of the GPI, BFN monitored a total of 30 groundwater wells located in the protected area and the owner controlled area during 2020. Normal sampling frequencies are quarterly and semiannually with some wells sampled monthly if certain criteria are met or for investigation purposes. Samples are routinely analyzed for environmental level tritium (H-3) and principle gamma emitters (PGE) with selected wells analyzed for Hard-to-Detect (HTD) radionuclides (Gross Alpha, Fe-55, Ni-63, Sr-89, and Sr-90). In support of the groundwater program, the site also monitors recapture and on-site storm drains, catch basins and surface water.

In 2020, low levels of tritium were detected in on-site groundwater wells as indicated in Table 9, Groundwater Data. Table 9 demonstrates all on-site groundwater wells that indicated detectable tritium concentrations. Tritium concentrations in 2020 ranged from non-detectable, less than 163 pCi/L, up to a maximum concentration of 35,400 pCi/L (Dewat-A). BFN has been monitoring a legacy tritium plume in the vicinity of groundwater well Dewat-A located adjacent to the reactor building. This plume is the result of previous leaks in past years (2015 and 2016). No other plant related radionuclides were detected in any groundwater well. There were no instances of any on-site spills or leaks that occurred during 2020 reporting period that were communicated to off-site agencies or that met the criteria in NEI 07-07, Appendix A.

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<i>Table 9 - Groundwater Data</i>		
Sample Date	Well ID	Tritium (pCi/L)
<b>1<sup>st</sup> Quarter 2020</b>		
2/7/2020	Dewat-A	35400
3/5/2020	Dewat-A	34400
2/6/2020	MW-01	2260
2/5/2020	MW-02	1430
2/4/2020	MW-02i	4160
3/5/2020	MW-02i	2800
2/6/2020	MW-03	579
2/4/2020	MW-04	1260
2/6/2020	MW-07	1170
2/6/2020	MW-08	3150
2/5/2020	MW8i	559
2/4/2020	MW-15	257
2/4/2020	MW-18	1360
2/5/2020	MW-19	1050
<b>2<sup>nd</sup> Quarter 2020</b>		
4/2/2020	Dewat-A	11800
5/7/2020	Dewat-A	5290
6/2/2020	Dewat-A	3110
5/7/2020	MW-01	1390
5/8/2020	MW-02	1500
4/2/2020	MW-02i	519
5/8/2020	MW-02i	1110
5/7/2020	MW-03	685
5/6/2020	MW-04	457
5/7/2020	MW-07	2300
5/7/2020	MW-08	7480
6/2/2020	MW-08	1650
5/7/2020	MW8i	523
5/6/2020	MW-19	1000

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<i>Table 9 - Groundwater Data</i>		
Sample Date	Well ID	Tritium (pCi/L)
<b>3<sup>rd</sup> Quarter 2020</b>		
8/5/2020	Dewat-A	3030
8/5/2020	MW-01	965
8/5/2020	MW-02	1190
8/5/2020	MW-02i	321
8/5/2020	MW-03	899
8/4/2020	MW-04	221
8/4/2020	MW-07	2390
8/5/2020	MW-08	1130
8/5/2020	MW8i	494
8/4/2020	MW-19	866
<b>4<sup>th</sup> Quarter 2020</b>		
11/16/2020	Dewat-A	3050
12/14/2020	Dewat-A	5010
11/19/2020	MW-01	2200
11/19/2020	MW-02	1090
11/19/2020	MW-03	755
11/19/2020	MW-04	266
11/19/2020	MW-07	2450
10/22/2020	MW-08	891
11/19/2020	MW-08	787
12/14/2020	MW-08	643
11/19/2020	MW8i	500
12/14/2020	MW-08i	2190
11/18/2020	MW-11	299
11/19/2020	MW-19	910

N. Errata/Corrections to Previous ARERRs

There are no errata/corrections made to previous ARERRs.

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## II. Gaseous Effluents

*Table 1-A Gaseous Effluents - Summation of all Releases*

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	Est. Total Error
<b>A. Fission and Activation Gases</b>							
1. Total Release	Ci	5.51E+01	1.17E+01	7.51E+00	2.35E+00	7.66E+01	± 45%
2. Average Release Rate for Period	uCi/sec	7.00E+00	1.48E+00	9.45E-01	2.95E-01	2.42E+00	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	
<b>B. Iodines</b>							
1. Total Release	Ci	5.90E-04	4.74E-04	1.17E-03	4.21E-04	2.66E-03	± 36%
2. Average Release Rate for Period	uCi/sec	7.50E-05	6.03E-05	1.48E-04	5.29E-05	8.41E-05	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	
<b>C. Particulates</b>							
1. Total Release	Ci	5.22E-04	6.76E-04	4.14E-04	5.26E-04	2.14E-03	± 35%
2. Average Release Rate for Period	uCi/sec	6.63E-05	8.60E-05	5.21E-05	6.62E-05	6.76E-05	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	
<b>D. Tritium<sup>1</sup></b>							
1. Total Release	Ci	1.62E+02	1.23E+02	1.04E+02	9.35E+01	4.83E+02	± 21%
2. Average Release Rate for Period	uCi/sec	2.06E+01	1.57E+01	1.31E+01	1.18E+01	1.53E+01	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	
<b>E. Gross Alpha</b>							
1. Total Release	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	NA
2. Average Release Rate for Period	uCi/sec	<LLD	<LLD	<LLD	<LLD	<LLD	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	
<b>F. Carbon-14</b>							
1. Total CO <sub>2</sub> Release	Ci	1.20E+01	1.30E+01	1.28E+01	1.20E+01	4.98E+01	NA
2. Total Carbon Release	Ci	1.27E+01	1.36E+01	1.35E+01	1.27E+01	5.25E+01	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	

<sup>1</sup> Includes activity from abnormal releases. Dilution flow was not determined for all abnormal releases.

\* Applicable Limits are expressed in terms of dose. Reference Section V, Radiological Impact.

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

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
<b>1. Fission and Activation Gases</b>						
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>2. Iodines</b>						
I-131	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>3. Particulates</b>						
Na-24	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>4. Gross Alpha</b>						
Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>5. Tritium</b>						
H-3	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>6. Carbon-14</b>						
C-14	Ci	<LLD	<LLD	<LLD	<LLD	<LLD



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

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
<b>1. Fission and Activation Gases</b>						
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>2. Iodines</b>						
I-131	Ci	4.20E-05	3.28E-06	1.55E-06	2.07E-06	4.89E-05
I-133	Ci	4.00E-05	<LLD	<LLD	<LLD	4.00E-05
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	8.21E-05	3.28E-06	1.55E-06	2.07E-06	8.90E-05
<b>3. Particulates</b>						
Na-24	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	<LLD	4.77E-06	<LLD	<LLD	4.77E-06
Co-58	Ci	<LLD	2.47E-06	<LLD	<LLD	2.47E-06
Co-60	Ci	<LLD	2.12E-05	1.56E-05	1.70E-06	3.86E-05
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Nb-95	Ci	<LLD	1.99E-06	<LLD	<LLD	1.99E-06
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	3.05E-05	1.56E-05	1.70E-06	4.789E-05
<b>4. Gross Alpha</b>						
Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>5. Tritium</b>						
H-3	Ci	4.49E+01	3.03E+01	2.06E+01	3.06E+01	1.26E+02
<b>6. Carbon-14</b>						
C-14	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

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*Table 1-C Gaseous Effluents – Elevated Releases (Batch)*

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
<b>1. Fission and Activation Gases</b>						
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>2. Iodines</b>						
I-131	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>3. Particulates</b>						
Na-24	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>4. Gross Alpha</b>						
Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>5. Tritium</b>						
H-3	Ci	<LLD	3.78E-03	<LLD	<LLD	3.78E-03
<b>6. Carbon-14</b>						
C-14	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

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*Table 1-C Gaseous Effluents – Elevated Releases (Continuous)*

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
<b>1. Fission and Activation Gases</b>						
Ar-41	Ci	1.44E+01	7.38E+00	4.51E+00	2.35E+00	2.86E+01
Kr-85m	Ci	2.75E+00	<LLD	<LLD	<LLD	2.75E+00
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	6.15E+00	1.21E+00	3.64E-01	<LLD	7.72E+00
Kr-88	Ci	1.99E+01	2.42E+00	2.17E+00	<LLD	2.44E+01
Xe-133	Ci	1.14E+01	1.95E-01	<LLD	<LLD	1.16E+01
Xe-135	Ci	5.91E-01	4.57E-01	4.68E-01	<LLD	1.52E+00
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	5.51E+01	1.17E+01	7.51E+00	2.35E+00	7.66E+01
<b>2. Iodines</b>						
I-131	Ci	1.65E-04	9.59E-05	1.62E-04	4.70E-05	4.70E-04
I-133	Ci	2.61E-04	2.64E-04	4.78E-04	8.54E-05	1.09E-03
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	4.25E-04	3.60E-04	6.41E-04	1.32E-04	1.56E-03
<b>3. Particulates</b>						
Na-24	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	4.07E-06	<LLD	4.07E-06
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	1.29E-05	6.09E-06	9.89E-06	1.20E-05	4.09E-05
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	5.22E-06	5.22E-06
La-140	Ci	<LLD	<LLD	<LLD	1.21E-05	1.21E-05
Au-199	Ci	2.30E-04	1.09E-04	1.52E-04	2.84E-04	7.75E-04
Total For Period	Ci	2.43E-04	1.15E-04	1.66E-04	3.14E-04	8.37E-04
<b>4. Gross Alpha</b>						
Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>5. Tritium</b>						
H-3	Ci	3.98E+01	1.64E+01	1.08E+01	8.07E+00	7.50E+01
<b>6. Carbon-14</b>						
C-14	Ci	1.20E+01	1.30E+01	1.28E+01	1.20E+01	4.98E+01

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*Table 1-D Gaseous Effluents – Mixed Mode Releases (Batch)*

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
<b>1. Fission and Activation Gases</b>						
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>2. Iodines</b>						
I-131	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>3. Particulates</b>						
Na-24	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>4. Gross Alpha</b>						
Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>5. Tritium</b>						
H-3	Ci	2.19E-03	5.75E-03	2.85E-03	2.23E-03	1.30E-02
<b>6. Carbon-14</b>						
C-14	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

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*Table 1-D Gaseous Effluents – Mixed Mode Releases (Continuous)*

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
<b>1. Fission and Activation Gases</b>						
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>2. Iodines</b>						
I-131	Ci	6.38E-05	2.35E-06	9.49E-05	5.07E-05	2.12E-04
I-133	Ci	1.88E-05	1.09E-04	4.37E-04	2.35E-04	8.00E-04
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	8.26E-05	1.11E-04	5.32E-04	2.86E-04	1.01E-03
<b>3. Particulates</b>						
Na-24	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cr-51	Ci	1.23E-04	4.46E-05	<LLD	2.33E-05	1.91E-04
Mn-54	Ci	3.88E-06	5.71E-06	6.12E-06	6.04E-06	2.18E-05
Co-58	Ci	5.09E-06	2.41E-06	<LLD	2.90E-06	1.04E-05
Co-60	Ci	1.13E-04	1.18E-04	7.87E-05	9.07E-05	4.00E-04
Zn-65	Ci	<LLD	<LLD	<LLD	2.05E-06	2.05E-06
Se-75	Ci	7.42E-07	1.55E-06	<LLD	4.91E-06	7.20E-06
As-76	Ci	<LLD	3.31E-04	1.47E-04	5.91E-05	5.37E-04
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Nb-95	Ci	<LLD	3.83E-06	<LLD	<LLD	3.83E-06
Ag-110m	Ci	3.23E-05	2.44E-05	3.99E-07	2.16E-05	7.87E-05
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	2.78E-04	5.31E-04	2.32E-04	2.11E-04	1.25E-03
<b>4. Gross Alpha</b>						
Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>5. Tritium</b>						
H-3	Ci	7.71E+01	7.67E+01	7.28E+01	5.48E+01	2.81E+02
<b>6. Carbon-14</b>						
C-14	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

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### III. Liquid Effluents

*Table 2-A Liquid Effluents - Summation of all Releases*

Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	Est. Total Error
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**A. Fission and Activation Products**

1. Total Release	Ci	1.08E-02	5.63E-03	1.00E-02	9.93E-03	3.63E-02	± 9%
2. Average Diluted Concentration	uCi/mL	1.08E-09	2.67E-10	1.76E-09	3.96E-10	8.76E-10	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	

**B. Tritium<sup>1</sup>**

1. Total Release	Ci	1.66E+01	1.43E+01	5.05E+00	1.23E+01	4.83E+01	± 6%
2. Average Diluted Concentration	uCi/mL	1.67E-06	6.68E-07	8.92E-07	4.91E-07	9.30E-07	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	

**C. Dissolved and Entrained Noble Gases**

1. Total Release	Ci	9.77E-05	4.40E-06	2.32E-05	3.16E-05	1.57E-04	± 8%
2. Average Diluted Concentration	uCi/mL	9.83E-12	2.09E-13	4.09E-12	1.26E-12	3.85E-12	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	

**D. Gross Alpha Radioactivity**

1. Total Release	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	± 48%
2. Average Release Rate for Period	uCi/mL	<LLD	<LLD	<LLD	<LLD	<LLD	
3. Percent of Tech Spec Limit	%	*	*	*	*	*	

<b>E. Volume of Liquid Waste to Discharge Canal (prior to dilution)</b>	Liters	1.29E+06	1.44E+06	7.42E+05	1.93E+06	5.41E+06	± 3%
<b>F. Volume of Dilution Water for Period</b>	Liters	9.94E+09	2.11E+10	5.67E+09	2.51E+10	6.18E+10	± 10%
<b>G. Total CCW</b>	Gigagal	2.14E+02	2.61E+02	2.72E+02	2.52E+02	9.99E+02	NA

<sup>1</sup> Includes activity from abnormal releases. Dilution flow was not determined for all abnormal releases.

\* Applicable Limits are expressed in terms of dose. Reference Section V, Radiological Impact.

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*Table 2-B Liquid Effluents – Batch Mode*

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
<b>1. Fission and Activation Products</b>						
F-18	Ci	1.16E-05	3.64E-06	1.20E-05	<LLD	2.72E-05
Na-24	Ci	2.18E-05	<LLD	<LLD	<LLD	2.18E-05
Cr-51	Ci	7.76E-05	<LLD	<LLD	<LLD	7.76E-05
Mn-54	Ci	1.07E-03	6.98E-04	1.32E-03	1.16E-03	4.25E-03
Fe-55	Ci	1.14E-03	4.83E-05	1.08E-03	<LLD	2.27E-03
Co-58	Ci	5.49E-04	6.12E-05	1.30E-04	3.43E-04	1.08E-03
Co-60	Ci	5.99E-03	3.89E-03	6.03E-03	5.20E-03	2.11E-02
Zn-65	Ci	1.15E-03	6.96E-04	3.96E-04	1.13E-03	3.38E-03
Sr-89	Ci	<LLD	<LLD	1.01E-04	2.26E-04	3.27E-04
Sr-90	Ci	<LLD	<LLD	3.57E-05	<LLD	3.57E-05
Sr-92	Ci	<LLD	5.39E-06	1.05E-05	8.85E-06	2.48E-05
Nb-97	Ci	7.49E-06	4.81E-05	3.79E-05	4.82E-05	1.42E-04
Ag-110m	Ci	5.48E-04	<LLD	1.94E-04	6.36E-04	1.38E-03
Cs-137	Ci	1.89E-04	1.72E-04	6.50E-04	1.18E-03	2.19E-03
La-140	Ci	<LLD	<LLD	6.68E-06	<LLD	6.68E-06
Total For Period	Ci	1.08E-02	5.63E-03	1.00E-02	9.93E-03	3.63E-02
<b>2. Dissolved and Entrained Gases</b>						
Xe-133	Ci	6.41E-05	<LLD	1.82E-05	5.02E-06	8.73E-05
Xe-135	Ci	3.36E-05	4.40E-06	5.02E-06	2.66E-05	6.96E-05
Total For Period	Ci	9.77E-05	4.40E-06	2.32E-05	3.16E-05	1.57E-04

*Table 2-B Liquid Effluents – Continuous Mode*

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
<b>1. Fission and Activation Products</b>						
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>2. Dissolved and Entrained Gases</b>						
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total For Period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

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IV. Solid Waste Storage and Shipment

A. Solid Waste Shipped Off-site for Burial or Disposal (Not Irradiated Fuel)

1.	<u>Type of Waste</u>	<u>Units</u>	<u>Jan-Jun</u>	<u>Jul-Dec</u>	<u>Error</u>
a.	Spent resins, filters, filter sludge evaporator bottoms, etc.	m <sup>3</sup> Ci	1.89E+02 2.25E+02	9.90E+01 4.68E+01	± 25% ± 25%
b.	Dry compressible waste, contaminated equipment, etc.	m <sup>3</sup> Ci	1.31E+03 7.31E+00	9.51E+02 3.34E+00	± 25% ± 25%
c.	Irradiated components, control rod blades & LPRMs with fission chambers	m <sup>3</sup> Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	± 25% ± 25%
d.	Other – Combined Packages	m <sup>3</sup> Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	± 25% ± 25%



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2. Estimate of major nuclide composition (by type of waste)

a. Spent resins, filters, filter sludge evaporator bottoms, etc.

	<u>Nuclide</u>	<u>Percentage</u>	<u>Curies</u>
1.	H-3	0.81%	2.20E+00
2.	C-14	0.16%	4.34E-01
3.	Cr-51	0.01%	3.76E-02
4.	Mn-54	7.11%	1.94E+01
5.	Fe-55	18.07%	4.93E+01
6.	Co-57	0.01%	3.58E-02
7.	Co-58	4.47%	1.22E+01
8.	Co-60	46.62%	1.27E+02
9.	Ni-59	0%	4.66E-04
10.	Ni-63	1%	2.73E+00
11.	Zn-65	6.24%	1.70E+01
12.	Sr-89	0.05%	1.30E-01
13.	Sr-90	0.03%	6.91E-02
14.	Tc-99	0.02%	4.09E-02
15.	Ag-110m	4.58%	1.25E+01
16.	Sb-124	0.08%	2.11E-01
17.	Cs-134	0.04%	1.12E-01
18.	Cs-137	10.65%	2.90E+01
19.	Ce-144	0.06%	1.70E-01
20.	Pu-238	0%	1.46E-06
21.	Pu-241	0%	3.59E-05
22.	Am-241	0%	3.36E-04
23.	Cm-242	0%	1.18E-07
24.	Cm-243	0%	2.72E-07

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2. Estimate of major nuclide composition (continued)

b. Dry compressible waste, contaminated equipment, etc.

	<u>Nuclide</u>	<u>Percentage</u>	<u>Curies</u>
1.	H-3	6.74%	7.18E-01
2.	Cr-51	0.85%	9.05E-02
3.	Mn-54	3.52%	3.75E-01
4.	Fe-55	29.61%	3.16E+00
5.	Co-57	0%	2.93E-04
6.	Co-58	1.77%	1.89E-01
7.	Co-60	43.99%	4.69E+00
8.	Ni-63	1.33%	1.41E-01
9.	Zn-65	2.55%	2.71E-01
10.	Sr-90	0.02%	1.93E-03
11.	Zr-95	0.06%	6.06E-03
12.	Nb-95	0.51%	5.45E-02
13.	Tc-99	0.01%	1.00E-03
14.	Ag-110m	2.63%	2.81E-01
15.	Sb-124	0.02%	2.57E-03
16.	Sb-125	0.34%	3.66E-02
17.	Cs-134	0.03%	3.60E-03
18.	Cs-137	6.01%	6.41E-01

c. Irradiated components, control rod blades & LPRMs with fission chambers

	<u>Nuclide</u>	<u>Percentage</u>	<u>Curies</u>
	0	0	0

d. Other (combined packages)

	<u>Nuclide</u>	<u>Percentage</u>	<u>Curies</u>
	0	0	0

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3. Sold Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
3	ESS (TVA)	TOXCO, Inc. Materials Management Center
14	Hittman Transport Services	Energy Solutions LLC. (Clive) Clive Disposal Site - Containerized Waste Facility
7	Hittman Transport Services	Energy Solutions Services Inc. 1560 Bear Creek Road
1	Hittman Transport Services	Waste Control Specialist, LLC CWF
1	Hittman Transport Services	WCS TSD Facility TSD Facility
2	Interstate Ventures, Inc.	TOXCO, Inc. Materials Management Center
32	Interstate Ventures, Inc.	Waste Control Specialist, LLC CWF
8	Interstate Ventures, Inc.	WCS TSD Facility TSD Facility
49	Specialty Transport, Inc.	Unitech Services Group, Inc. Oak Ridge Service Center

B. Irradiated Fuel Shipments (Disposition)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
0	NA	NA

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V. Radiological Impact to Man

A. Introduction

Potential doses to the "maximum exposed individual" and the population around Browns Ferry Nuclear Plant (BFN) are calculated for each quarter as required in Section 5.2 of the Offsite Dose Calculation Manual (ODCM). The methodology used to estimate dose for determining plant releases for the reporting period is specified in Sections 6 and 7 of the ODCM. Dispersion of radioactive effluents in the environment is estimated using meteorological data and river flow measured during the period. In this report, the doses resulting from releases are described and compared to limits established for BFN.

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 air dose limits in areas at and beyond the Site Boundary due to noble gases released in gaseous effluents per unit are:

- $\leq 5$  mrad per quarter and  $\leq 10$  mrad per year for gamma radiation.  
and
- $\leq 10$  mrad per quarter and  $\leq 20$  mrad per year for beta radiation.

The dose limits to a member of the public in an unrestricted area from radioiodines, radioactive materials in particulate form, and radionuclides other than noble gases with half lives  $> 8$  days released in gaseous effluents for each unit are:

- $\leq 7.5$  mrem per quarter and  $\leq 15$  mrem per year to any organ.

The dose or dose commitment to a member of the public from radioactive material in liquid effluents released to unrestricted areas are:

- $\leq 1.5$  mrem per quarter and  $\leq 3$  mrem per year to the total body,  
and
- $\leq 5$  mrem per quarter and  $\leq 10$  mrem per year to any organ.

The limit for the total effective dose equivalent to an individual member of the public inside the site boundary is:

- 100 mrem per year.

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

- $\leq 25$  mrem per year to the whole body,  $\leq 75$  mrem per year to the thyroid,  
and
- $\leq 25$  mrem per year to any other organ.

C. Dose Calculations

Estimated doses to members of the public are determined using computer models (the Gaseous Effluent Licensing Code, and the Quarterly Water Dose Assessment Code (QWATA)). These models are based on guidance provided by the Nuclear Regulatory Commission (NRC) for determining the potential dose to individuals and populations living in the vicinity of the plant. The area around the plant is analyzed to determine the pathways through which the public may receive a dose. The doses calculated are a representation of the dose to a "maximum exposed individual." Some of the factors used in these calculations (such as ingestion rates) are maximum values to ensure conservative reporting of data. The values chosen will tend to overestimate the dose. The expected dose to actual individuals is lower. The calculated doses are presented in Tables 3, 4, and 5.

D. Doses from Airborne Effluents

For airborne effluents, members of 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 consumed by animals.

Releases from the turbine building are considered ground-level releases. The ground-level Joint Frequency Distribution (JFD) is derived from wind speeds and directions measured 10.5 meters above the ground and from the vertical temperature difference between 10.03 and 45.30 meters, and are presented for each quarter in Section VI, Meteorological Data, Tables 6A, 6B, 6C, and 6D.

Releases from the radwaste and reactor buildings are considered split-level releases. Portions of the release are treated as ground-level while other portions are considered elevated depending on the ratio of the vertical exit velocity to the horizontal wind speed. The split-level dispersion approach is implemented using a model that requires two complete quarterly JFDs for each effluent vent, one for the ground-level releases and one for the elevated releases. The ground-level portion of the split-level JFD is based on wind speeds and directions measured 10.5 meters above ground-level and from the vertical temperature difference between 10.03 and 45.30 meters. The elevated portion of the split-level JFD is based on wind speeds and direction measurements at the 45.74 meter level and the vertical

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temperature difference between 10.03 and 89.59 meters. Both of these JFDs are given for each quarter in Section VI, Meteorological Data, Tables 7A, 7B, 7C, and 7D.

Releases from the stack are considered to be elevated releases. The JFDs for elevated releases are based on wind directions and wind speeds measured at 90.29 meters and the vertical temperature difference between 10.03 and 89.59 meters, and are given for each quarter in Section VI, Meteorological Data, Table 8A, 8B, 8C, and 8D.

Meteorological variables at BFN are measured continuously. Measurements collected include wind speed and wind direction at heights of 10.5, 45.74, and 90.29 meters above the ground, and temperature at heights of 10.03, 45.30, and 89.59 meters above the ground. Quarterly JFDs are calculated for each release point using the appropriate levels of meteorological data. A quarterly JFD gives the percentage of the time 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 1.6 m/s (3.5 mph). Stability classes are determined from the vertical temperature difference between two measurement levels.

The generally open terrain around BFN does not cause any significant effects on the transport and dispersion of gaseous effluents from the plant. Within 30 kilometers of BFN, the terrain is mostly gently rolling hills (30-60 meters). Between 30 and 80 kilometers, the hills become larger to the north and south and mountainous to the east and northeast. The Tennessee River/Wheeler Lake may have a minor effect on transport and dispersion in the immediate vicinity of BFN during periods of winds with a southerly component, overcast skies, and relatively high wind speeds. Also, the lower layer (10-45 meters) stability class tends to be more stable. However, during this infrequent condition, dose estimates will be conservative.

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

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

Dose to an organ due to releases of airborne effluents are estimated for the inhalation, ground contamination, and ingestion pathways. The ingestion pathway is further divided into three possible contributing pathways: ingestion of cow/goat milk, ingestion of beef, and ingestion of vegetables. Doses from applicable pathways are calculated for each 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. However, for the

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ingestion dose, only those pathways that exist for each receptor are considered in the sum, e.g., milk ingestion doses are included only for locations where milk was consumed without commercial preparation and vegetable ingestion is included only for those locations where a garden was 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.

The maximum organ dose, thyroid dose, and total body dose 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 concentration of radionuclides in the Tennessee River is calculated by a computer model which uses measured hydraulic data downstream of BFN.

Parameters used to determine the doses are based on guidance given by the NRC for maximum ingestion rates, exposure times, etc.

Wherever possible, parameters used in the dose calculation are site specific. The models that are used to estimate doses, as well as the parameters input to the models, are described in detail in the BFN ODCM.

Radionuclide concentrations in the Tennessee River are calculated assuming that releases in liquid effluents are continuous. When necessary, liquid releases from BFN, located at Tennessee River Mile 294, are made through diffusers which extend into the Tennessee River. It is assumed that releases to the river through these diffusers will initially be entrained in one-fifth of the water which flows past the plant. The QWATA code makes the assumption that this mixing condition holds true until the water is completely mixed at the first downstream dam (Wheeler Dam), at Tennessee River Mile 283.

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's release point. The maximum exposed 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. The maximum exposed individual dose from drinking water is assumed to be that calculated at the nearest downstream public water supply [West Morgan - East Lawrence (WMEL)]. This could be interpreted as indicating that the maximum exposed individual, as assumed for liquid releases from BFN, is an individual who obtains all drinking water at WMEL, consumes fish caught from the Tennessee River between BFN and Wheeler Dam, and spends 500 hours per year on the shoreline just downstream of the

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plant's release point. Doses calculated for the maximum exposed 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.

F. Population Doses

Population doses due to airborne effluents are calculated for people 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 are calculated assuming that each individual consumed milk, vegetables, and meat produced within the sector in which the individual resides.

Population doses 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 historical recreational data on the number of shoreline visits at downstream locations.

Population doses calculated for airborne and liquid effluents are presented in Tables 3 and 4.

G. Offsite Direct Radiation Dose

External gamma radiation levels were measured by environmental dosimeters deployed around BFN as part of the offsite Radiological Environmental Monitoring Program (REMP). The results for environmental dosimeter measurements are normalized to a standard quarter (91 days). The monitoring locations are grouped according to the distance from the plant. The first group consists of all monitoring points within 2 miles of the plant. The second group is made up of all locations greater than 2 miles from the plant. Past data have shown that the average results from the locations more than 2 miles from the plant are essentially the same. Therefore, for purposes of this report, monitoring points 2 miles or less from the plant are identified as on-site stations and locations greater than 2 miles are considered off-site stations. The quarterly gamma radiation levels determined from these dosimeters deployed around BFN in 2020 averaged approximately 18.2 mrem/quarter at on-site stations and approximately 16.0 mrem/quarter at off-site stations. The on-site stations are approximately 2.2 mrem/quarter higher than at off-site stations. This difference is consistent with levels measured for preoperational and construction phases at BFN where the average radiation levels on-site were generally 2-6 mrem/quarter higher than the levels off-site. This may be attributed to natural variations in environmental radiation levels, earth moving activities on-site, the mass of concrete employed in the construction of the plants, or other undetermined influences. Fluctuations in natural background dose rates and in dosimeter 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.



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

Pursuant to ODCM Section 7.7.5, a review was performed to determine the highest dose to a member of the public in the site boundary. The dose to a member of the public consists of the sum of dose commitments from effluent releases as well as any direct radiation dose. The gaseous effluent dose commitment is negligible compared to the direct radiation dose.

The direct radiation dose was determined from area environmental dosimeters located on-site. It consisted of gamma dose from the plume, ground contamination, and from equipment sources (i.e., tanks, turbine shine, radioactive material storage areas, etc.). The critical location was determined to be an Optically Stimulated Luminescence (OSL) dosimeter near the Livewell Center (SE-1). The direct radiation dose at the Livewell Center, accounting for background and occupancy, was approximately 0.7 mrem/quarter during 2020.

The total annual dose commitment to a member of the public for 2020 was 2.8 mrem. It can be concluded that the dose limit for a member of the public at the site boundary as specified in 10 CFR 20.1301 was not exceeded.

I. Total Dose

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

The annual dose to any organ other than the thyroid for the maximum exposed individual is conservatively calculated 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 REMP. This dose is compared to the 40 CFR 190 limit for total body or any organ dose (other than the thyroid) to determine compliance.

The annual thyroid dose to the maximum exposed 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 REMP. This dose is compared to the 40 CFR 190 limit for thyroid dose to determine compliance.

Total dose from the fuel cycle is presented in Table 5.

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J. Tables

*Table 3-A Doses from Airborne Effluents – 1<sup>st</sup> Quarter*

**Individual Doses**

<b>Pathway</b>	<b>Dose</b>	<b>Quarterly Limit</b>	<b>Percent of Limit</b>	<b>Location</b>
Beta Air	4.18E-05 mrad	10 mrad	< 1%	NNW 7400 meters
Gamma Air	1.11E-04 mrad	5 mrad	< 1%	NNW 7400 meters
NG Skin	4.59E-04 mrad	NA	NA	NNW 1650 meters
NG Total Body	3.81E-04 mrad	NA	NA	NNW 1650 meters
<b>Organ Doses</b> (Iodine, Tritium, Particulates with >8-Day half-life)				
Child / Thyroid	2.53E-02 mrem	7.5 mrem	< 1%	NNW 4350 meters
Child / Total Body	2.51E-02 mrem	7.5 mrem	< 1%	NNW 4350 meters
Child / Bone	3.59E-02 mrem	7.5 mrem	< 1%	NNW 4350 meters

**Population Doses**

Total Body Dose	2.39E-01 man-rem
Maximum Organ Dose (Organ)	7.92E-01 man-rem (Bone)

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*Table 3-B Doses from Airborne Effluents – 2<sup>nd</sup> Quarter*

**Individual Doses**

<b>Pathway</b>	<b>Dose</b>	<b>Quarterly Limit</b>	<b>Percent of Limit</b>	<b>Location</b>
Beta Air	1.72E-05 mrad	10 mrad	< 1%	N 5300 meters
Gamma Air	4.46E-05 mrad	5 mrad	< 1%	N 5300 meters
NG Skin	4.15E-04 mrad	NA	NA	E 1410 meters
NG Total Body	3.53E-04 mrad	NA	NA	E 1410 meters
<b>Organ Doses</b>				
(Iodine, Tritium, Particulates with >8-Day half-life)				
Child / Thyroid	1.41E-02 mrem	7.5 mrem	< 1%	E 1530 meters
Child / Total Body	1.41E-02 mrem	7.5 mrem	< 1%	E 1530 meters
Child / Bone	3.42E-02 mrem	7.5 mrem	< 1%	N 6200

**Population Doses**

Total Body Dose 2.59E-01 man-rem  
 Maximum Organ Dose (Organ) 9.45E-01 man-rem (Bone)



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*Table 3-D Doses from Airborne Effluents – 4<sup>th</sup> Quarter*

**Individual Doses**

<b>Pathway</b>	<b>Dose</b>	<b>Quarterly Limit</b>	<b>Percent of Limit</b>	<b>Location</b>
Beta Air	2.55E-06 mrad	10 mrad	< 1%	WNW 5500 meters
Gamma Air	7.24E-06 mrad	5 mrad	< 1%	WNW 5500 meters
NG Skin	2.53E-04 mrad	NA	NA	NNW 1650 meters
NG Total Body	2.14E-04 mrad	NA	NA	NNW 1650 meters
<b>Organ Doses (Iodine, Tritium, Particulates with &gt;8-Day half-life)</b>				
Child / Thyroid	1.26E-02 mrem	7.5 mrem	< 1%	NNW 4350 meters
Child / Total Body	1.25E-02 mrem	7.5 mrem	< 1%	NNW 4350 meters
Child / Bone	2.77E-02 mrem	7.5 mrem	< 1%	NNW 4350 meters

**Population Doses**

Total Body Dose	2.17E-01 man-rem
Maximum Organ Dose (Organ)	7.84E-01 man-rem (Bone)





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*Table 4-E Total Dose from I-131 Water Ingestion*

**Individual Doses**

Quarter	1	2	3	4	Total
<b>I-131 (Ci)</b>	<LLD	<LLD	<LLD	<LLD	<LLD
<b>Thyroid (mrem)</b>	NA	NA	NA	NA	NA
<b>Population / Thyroid (mrem)</b>	NA	NA	NA	NA	NA

The REMP requirements as specified in Table 3.12-1 from NUREG 1302, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Boiling Water Reactors," dated April 1991, requires an I-131 specific analysis for drinking water pathway samples if the annual dose from I-131 is greater than 1 mrem. In order to evaluate the need for implementation of this additional analysis, the drinking water pathway dose from I-131 to the maximum organ and age group is calculated. Based on Table 4-E, the performance of the I-131 specific analysis is not required for BFN REMP drinking water samples, as I-131 was not identified in any liquid effluent from the plant.

*Table 4-F Total Dose from Groundwater*

**Individual Doses**

Quarter	1	2	3	4	Total
<b>Tritium (Ci)</b>	4.43E-07	4.43E-07	4.43E-07	4.43E-07	1.77E-06
<b>Child (mrem)</b>	1.20E-12	2.50E-12	5.80E-12	3.00E-12	1.25E-11
<b>Population (mrem)</b>	1.90E-11	4.10E-11	9.20E-11	4.70E-11	1.99E-10

As determined in the 2006 Groundwater study, the estimated groundwater/channel water dilution ratio is 1:20,000 at a rate of approximately 0.5 gpm. Using the highest measured groundwater tritium concentration in 2020, 35,400 pCi/L, the aqueous tritium concentration in the channel, after dilution, would be 1.77E-09 uCi/mL. Assuming 1.77E-09 uCi/mL concentration at a release rate of 0.5 gpm for the entire year results in a total release of approximately 1.77E-06 Curies. The calculated hypothetical dose to the maximum exposed member of the public would be 1.25E-11 mrem (reference Table 4-F).

The calculated hypothetical annual dose to a maximum exposed member of the public is less than 1 mrem.



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*Table 5 Total Dose from Fuel Cycle*

Dose	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
<b>Total Body or any Organ (except thyroid)</b>					
Total body air (submersion)	3.81E-04	3.53E-04	2.92E-04	2.14E-04	
Critical organ dose (airborne)	3.59E-02	3.42E-02	4.34E-02	2.77E-02	
Total body dose (liquid)	1.30E-04	2.00E-04	6.80E-04	4.70E-04	
Maximum organ dose (liquid)	1.60E-04	2.40E-04	8.80E-04	6.20E-04	
Direct Radiation Dose	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
<b>Total</b>	3.66E-02	3.50E-02	4.53E-02	2.90E-02	
<b>Cumulative Total Dose (mrem)</b>					<b>1.46E-01</b>
<b>Annual Dose Limit (mrem)</b>					<b>2.5E+01</b>
<b>Percent of Limit</b>					<b>&lt; 1%</b>
<b>Thyroid</b>					
Total body air (submersion)	3.81E-04	3.53E-04	2.92E-04	2.14E-04	
Thyroid dose (airborne)	2.53E-02	1.41E-02	1.48E-02	1.26E-02	
Total body dose (liquid)	1.30E-04	2.00E-04	6.80E-04	4.70E-04	
Thyroid dose (liquid)	1.20E-04	1.80E-04	4.20E-04	2.50E-04	
<b>Total</b>	2.59E-02	1.48E-02	1.62E-02	1.35E-02	
<b>Cumulative Total Dose (mrem)</b>					<b>7.05E-02</b>
<b>Annual Dose Limit (mrem)</b>					<b>7.5E+01</b>
<b>Percent of Limit</b>					<b>&lt; 1%</b>

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VI. Meteorological Data

*Table 6A 1<sup>st</sup> Quarter JFD - Ground Level Releases*

Joint Frequency Distribution In Percent

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.046	0.046	0.000	0.000	0.000	0.092
NNE	0.000	0.000	0.000	0.000	0.000	0.322	0.000	0.000	0.000	0.322
NE	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
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	0.092	0.644	0.092	0.000	0.000	0.000	0.000	0.828
SSE	0.000	0.000	0.276	0.414	0.046	0.000	0.000	0.000	0.000	0.736
S	0.000	0.000	0.322	0.138	0.000	0.000	0.000	0.000	0.000	0.460
SSW	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.092
SW	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.092
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	0.046	0.000	0.000	0.000	0.046
WNW	0.000	0.000	0.000	0.000	0.000	0.092	0.046	0.000	0.000	0.138
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.322	0.000	0.000	0.322
NNW	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
SUBTOTAL	0.000	0.000	0.736	1.334	0.230	0.506	0.368	0.000	0.000	3.174

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2174
TOTAL HOURS OF STABILITY CLASS A	69
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	69
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2174
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 6.16

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.184	0.092	0.000	0.000	0.000	0.276
NNE	0.000	0.000	0.000	0.000	0.230	0.184	0.000	0.000	0.000	0.414
NE	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
E	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.092
SE	0.000	0.000	0.046	0.184	0.000	0.000	0.000	0.000	0.000	0.230
SSE	0.000	0.000	0.460	0.092	0.000	0.000	0.000	0.000	0.000	0.552
S	0.000	0.000	0.184	0.046	0.000	0.000	0.000	0.000	0.000	0.230
SSW	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.092
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
W	0.000	0.000	0.000	0.046	0.000	0.138	0.000	0.000	0.000	0.184
WNW	0.000	0.000	0.000	0.000	0.000	0.276	0.138	0.000	0.000	0.414
NW	0.000	0.000	0.000	0.000	0.000	0.092	0.230	0.000	0.000	0.322
NNW	0.000	0.000	0.000	0.000	0.046	0.138	0.000	0.000	0.000	0.184
SUBTOTAL	0.000	0.000	0.782	0.506	0.506	0.920	0.368	0.000	0.000	3.082

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2174
TOTAL HOURS OF STABILITY CLASS B	67
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	67
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2174
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 6.89

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.046	0.276	0.046	0.000	0.000	0.000	0.368
NNE	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.092
NE	0.000	0.000	0.000	0.000	0.092	0.046	0.000	0.000	0.000	0.138
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.000	0.138	0.230	0.000	0.000	0.000	0.000	0.000	0.368
SSE	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.092
S	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.092
SSW	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	0.046	0.000	0.000	0.000	0.000	0.000	0.046
WSW	0.000	0.000	0.000	0.000	0.046	0.092	0.000	0.000	0.000	0.138
W	0.000	0.000	0.000	0.046	0.000	0.092	0.000	0.000	0.000	0.138
WNW	0.000	0.000	0.000	0.000	0.000	0.322	0.184	0.000	0.000	0.506
NW	0.000	0.000	0.000	0.000	0.000	0.276	0.184	0.000	0.000	0.460
NNW	0.000	0.000	0.000	0.000	0.092	0.000	0.092	0.000	0.000	0.184
SUBTOTAL	0.000	0.000	0.322	0.414	0.552	0.920	0.460	0.000	0.000	2.668

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2174
TOTAL HOURS OF STABILITY CLASS C	58
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	58
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2174
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 8.07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.092	0.506	1.472	0.598	0.000	0.000	0.000	2.668
NNE	0.000	0.000	0.414	0.598	1.104	1.426	0.000	0.000	0.000	3.542
NE	0.000	0.000	0.414	0.920	0.736	0.828	0.000	0.000	0.000	2.898
ENE	0.000	0.046	0.368	0.230	0.046	0.000	0.000	0.000	0.000	0.690
E	0.000	0.000	0.276	0.138	0.046	0.000	0.000	0.000	0.000	0.460
ESE	0.000	0.000	0.598	0.506	0.000	0.000	0.000	0.000	0.000	1.104
SE	0.000	0.000	0.782	0.782	0.092	0.000	0.000	0.000	0.000	1.656
SSE	0.000	0.046	1.472	0.276	0.092	0.000	0.000	0.000	0.000	1.886
S	0.000	0.046	0.736	0.046	0.092	0.000	0.000	0.000	0.000	0.920
SSW	0.000	0.000	0.598	0.184	0.000	0.000	0.000	0.000	0.000	0.782
SW	0.000	0.092	0.368	0.046	0.000	0.000	0.000	0.000	0.000	0.506
WSW	0.000	0.000	0.552	0.460	0.414	0.046	0.000	0.000	0.000	1.472
W	0.000	0.000	0.368	0.598	1.104	0.552	0.000	0.000	0.000	2.622
WNW	0.000	0.000	0.138	0.184	0.414	1.288	0.644	0.092	0.000	2.760
NW	0.000	0.000	0.184	0.230	0.552	1.656	1.242	0.092	0.000	3.956
NNW	0.000	0.046	0.046	0.138	0.690	1.380	0.092	0.000	0.000	2.392
SUBTOTAL	0.000	0.276	7.406	5.842	6.854	7.774	1.978	0.184	0.000	30.313

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2174
TOTAL HOURS OF STABILITY CLASS D	659
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	659
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2174
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 6.41

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
 STABILITY CLASS E (-0.5 < DELTA T <= 1.5 C/100 M)

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.046	0.552	0.414	0.690	0.138	0.000	0.000	0.000	1.840
NNE	0.000	0.000	0.828	0.644	0.552	0.276	0.000	0.000	0.000	2.300
NE	0.000	0.092	0.506	0.644	0.276	0.230	0.092	0.000	0.000	1.840
ENE	0.000	0.092	0.368	0.184	0.184	0.046	0.000	0.000	0.000	0.874
E	0.000	0.000	0.644	0.276	0.046	0.000	0.000	0.000	0.000	0.966
ESE	0.000	0.322	1.840	0.460	0.230	0.000	0.000	0.000	0.000	2.852
SE	0.000	0.460	2.162	0.460	0.046	0.000	0.000	0.000	0.000	3.128
SSE	0.000	0.460	2.760	0.920	0.276	0.000	0.000	0.000	0.000	4.416
S	0.000	0.230	1.840	1.334	0.736	0.046	0.000	0.000	0.000	4.186
SSW	0.000	0.138	0.552	0.414	0.092	0.000	0.000	0.000	0.000	1.196
SW	0.000	0.184	0.782	0.046	0.000	0.000	0.000	0.000	0.000	1.012
WSW	0.000	0.092	1.058	0.460	0.046	0.000	0.000	0.000	0.000	1.656
W	0.000	0.092	0.828	0.782	0.368	0.092	0.046	0.000	0.000	2.208
WNW	0.000	0.046	0.414	0.460	0.322	0.414	0.322	0.000	0.000	1.978
NW	0.000	0.092	0.368	0.230	0.184	0.690	0.322	0.000	0.000	1.886
NNW	0.000	0.046	0.552	0.506	0.138	0.276	0.000	0.000	0.000	1.518
SUBTOTAL	0.000	2.392	16.053	8.234	4.186	2.208	0.782	0.000	0.000	33.855

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174  
 TOTAL HOURS OF STABILITY CLASS E 736  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 736  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2174  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 4.01

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.046	0.552	0.230	0.046	0.000	0.000	0.000	0.000	0.876
NNE	0.002	0.046	0.506	0.092	0.092	0.046	0.000	0.000	0.000	0.784
NE	0.001	0.000	0.184	0.000	0.000	0.000	0.000	0.000	0.000	0.185
ENE	0.003	0.276	0.506	0.046	0.000	0.000	0.000	0.000	0.000	0.831
E	0.003	0.046	0.690	0.138	0.000	0.000	0.000	0.000	0.000	0.877
ESE	0.006	0.414	1.288	0.184	0.000	0.000	0.000	0.000	0.000	1.892
SE	0.005	0.644	0.828	0.276	0.000	0.000	0.000	0.000	0.000	1.753
SSE	0.012	0.322	3.220	1.012	0.138	0.138	0.000	0.000	0.000	4.842
S	0.007	0.230	1.840	2.300	0.736	0.092	0.000	0.000	0.000	5.205
SSW	0.001	0.092	0.092	0.230	0.092	0.092	0.000	0.000	0.000	0.599
SW	0.001	0.092	0.184	0.000	0.000	0.000	0.000	0.000	0.000	0.277
WSW	0.001	0.092	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.185
W	0.000	0.000	0.092	0.000	0.046	0.046	0.000	0.000	0.000	0.184
WNW	0.001	0.000	0.184	0.046	0.092	0.000	0.000	0.000	0.000	0.323
NW	0.002	0.184	0.276	0.092	0.000	0.000	0.046	0.000	0.000	0.600
NNW	0.001	0.046	0.276	0.184	0.000	0.000	0.000	0.000	0.000	0.507
SUBTOTAL	0.046	2.530	10.810	4.830	1.242	0.414	0.046	0.000	0.000	19.917

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2174
TOTAL HOURS OF STABILITY CLASS F	433
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	433
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2174
TOTAL HOURS CALM	1

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 3.16

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.046	0.276	0.000	0.000	0.000	0.000	0.000	0.000	0.322
NNE	0.000	0.092	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.230
NE	0.000	0.230	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.276
ENE	0.000	0.138	0.138	0.046	0.000	0.000	0.000	0.000	0.000	0.322
E	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.092
ESE	0.000	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.138
SE	0.000	0.414	0.414	0.000	0.000	0.000	0.000	0.000	0.000	0.828
SSE	0.000	0.276	2.438	0.598	0.092	0.000	0.000	0.000	0.000	3.404
S	0.000	0.000	0.598	0.138	0.046	0.000	0.000	0.000	0.000	0.782
SSW	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	0.046	0.000	0.000	0.000	0.000	0.046
WSW	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
NW	0.000	0.138	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.184
NNW	0.000	0.184	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.276
SUBTOTAL	0.000	1.748	4.278	0.782	0.184	0.000	0.000	0.000	0.000	6.992

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2174
TOTAL HOURS OF STABILITY CLASS G	152
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	152
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2174
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 2.32

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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*Table 6B 2<sup>nd</sup> Quarter JFD - Ground Level Releases*

Joint Frequency Distribution In Percent

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.458	0.000	0.000	0.000	0.458
NNE	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
NE	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
E	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.000	0.183	0.229	0.000	0.000	0.000	0.000	0.000	0.412
SE	0.000	0.000	0.412	0.366	0.000	0.000	0.000	0.000	0.000	0.779
SSE	0.000	0.000	0.733	0.046	0.000	0.000	0.000	0.000	0.000	0.779
S	0.000	0.000	0.779	0.137	0.000	0.000	0.000	0.000	0.000	0.916
SSW	0.000	0.000	0.412	0.183	0.000	0.000	0.000	0.000	0.000	0.596
SW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
WSW	0.000	0.000	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	0.046	0.000	0.000	0.183	0.092	0.000	0.321
NNW	0.000	0.000	0.000	0.000	0.000	0.229	0.046	0.000	0.000	0.275
SUBTOTAL	0.000	0.000	2.565	1.054	0.000	0.733	0.229	0.092	0.000	4.672

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS A	102
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	102
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2183
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 4.90

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.321	0.000	0.000	0.000	0.321
NNE	0.000	0.000	0.000	0.000	0.092	0.412	0.000	0.000	0.000	0.504
NE	0.000	0.000	0.000	0.000	0.000	0.137	0.000	0.000	0.000	0.137
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.046	0.366	0.000	0.000	0.000	0.000	0.000	0.412
SE	0.000	0.000	0.458	0.183	0.000	0.000	0.000	0.000	0.000	0.641
SSE	0.000	0.000	0.275	0.046	0.000	0.000	0.000	0.000	0.000	0.321
S	0.000	0.000	0.504	0.137	0.000	0.000	0.000	0.000	0.000	0.641
SSW	0.000	0.000	0.183	0.137	0.000	0.000	0.000	0.000	0.000	0.321
SW	0.000	0.000	0.183	0.137	0.000	0.000	0.000	0.000	0.000	0.321
WSW	0.000	0.000	0.092	0.183	0.000	0.000	0.000	0.000	0.000	0.275
W	0.000	0.000	0.000	0.092	0.046	0.000	0.000	0.000	0.000	0.137
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.137	0.000	0.000	0.137
NW	0.000	0.000	0.000	0.000	0.046	0.229	0.183	0.046	0.000	0.504
NNW	0.000	0.000	0.000	0.000	0.046	0.366	0.046	0.000	0.000	0.458
SUBTOTAL	0.000	0.000	1.741	1.283	0.229	1.466	0.366	0.046	0.000	5.131

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
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	2183
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 6.17

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.046	0.092	0.229	0.000	0.000	0.000	0.366
NNE	0.000	0.000	0.000	0.000	0.275	0.275	0.000	0.000	0.000	0.550
NE	0.000	0.000	0.000	0.046	0.000	0.183	0.092	0.000	0.000	0.321
ENE	0.000	0.000	0.046	0.000	0.046	0.000	0.000	0.000	0.000	0.092
E	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.092
ESE	0.000	0.000	0.046	0.183	0.092	0.000	0.000	0.000	0.000	0.321
SE	0.000	0.000	0.596	0.000	0.000	0.000	0.000	0.000	0.000	0.596
SSE	0.000	0.000	0.321	0.046	0.000	0.000	0.000	0.000	0.000	0.366
S	0.000	0.000	0.504	0.046	0.000	0.000	0.000	0.000	0.000	0.550
SSW	0.000	0.000	0.321	0.183	0.000	0.000	0.000	0.000	0.000	0.504
SW	0.000	0.000	0.275	0.046	0.000	0.000	0.000	0.000	0.000	0.321
WSW	0.000	0.000	0.000	0.412	0.046	0.000	0.000	0.000	0.000	0.458
W	0.000	0.000	0.000	0.504	0.275	0.046	0.000	0.000	0.000	0.825
WNW	0.000	0.000	0.046	0.000	0.092	0.183	0.137	0.000	0.000	0.458
NW	0.000	0.000	0.046	0.000	0.046	0.321	0.366	0.000	0.000	0.779
NNW	0.000	0.000	0.046	0.000	0.183	0.137	0.000	0.000	0.000	0.366
SUBTOTAL	0.000	0.000	2.290	1.557	1.145	1.374	0.596	0.000	0.000	6.963

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS C	152
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	152
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2183
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 6.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.229	0.321	0.687	0.229	0.046	0.000	0.000	1.512
NNE	0.000	0.000	0.137	0.550	0.596	0.321	0.000	0.000	0.000	1.603
NE	0.000	0.000	0.183	0.229	0.412	0.412	0.000	0.000	0.000	1.237
ENE	0.000	0.000	0.366	0.229	0.092	0.046	0.000	0.000	0.000	0.733
E	0.000	0.000	0.596	0.641	0.229	0.046	0.000	0.000	0.000	1.512
ESE	0.000	0.046	1.557	1.008	0.229	0.092	0.000	0.000	0.000	2.932
SE	0.000	0.000	1.420	0.046	0.000	0.000	0.000	0.000	0.000	1.466
SSE	0.000	0.229	1.741	0.092	0.000	0.000	0.000	0.000	0.000	2.061
S	0.000	0.275	0.962	0.229	0.000	0.000	0.000	0.000	0.000	1.466
SSW	0.000	0.137	1.374	0.275	0.000	0.000	0.000	0.000	0.000	1.787
SW	0.000	0.137	0.733	0.137	0.000	0.000	0.000	0.000	0.000	1.008
WSW	0.000	0.000	0.825	0.733	0.137	0.092	0.000	0.000	0.000	1.787
W	0.000	0.000	1.099	1.970	0.962	0.870	0.046	0.000	0.000	4.947
WNW	0.000	0.000	0.092	0.641	0.687	1.328	0.916	0.000	0.000	3.665
NW	0.000	0.000	0.229	0.596	0.733	1.741	0.504	0.000	0.000	3.802
NNW	0.000	0.000	0.046	0.504	0.504	0.412	0.137	0.000	0.000	1.603
SUBTOTAL	0.000	0.825	11.590	8.200	5.268	5.589	1.649	0.000	0.000	33.120

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS D	723
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	723
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2183
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 5.34

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.046	0.916	0.550	0.137	0.046	0.000	0.000	0.000	1.695
NNE	0.000	0.000	0.412	0.550	0.092	0.046	0.000	0.000	0.000	1.099
NE	0.000	0.229	0.458	0.275	0.046	0.046	0.000	0.000	0.000	1.054
ENE	0.000	0.229	1.283	0.504	0.046	0.000	0.000	0.000	0.000	2.061
E	0.000	0.275	3.069	1.832	0.550	0.092	0.000	0.000	0.000	5.818
ESE	0.000	0.596	2.703	0.687	0.412	0.046	0.000	0.000	0.000	4.443
SE	0.000	0.366	1.099	0.092	0.000	0.000	0.000	0.000	0.000	1.557
SSE	0.000	0.458	1.328	0.046	0.000	0.000	0.000	0.000	0.000	1.832
S	0.000	0.321	1.008	0.137	0.000	0.000	0.000	0.000	0.000	1.466
SSW	0.000	0.275	0.596	0.092	0.000	0.000	0.000	0.000	0.000	0.962
SW	0.000	0.092	0.504	0.000	0.000	0.000	0.000	0.000	0.000	0.596
WSW	0.000	0.137	0.596	0.183	0.000	0.046	0.000	0.000	0.000	0.962
W	0.000	0.092	0.687	0.733	0.229	0.046	0.000	0.000	0.000	1.787
WNW	0.000	0.000	0.137	0.092	0.092	0.046	0.000	0.000	0.000	0.366
NW	0.000	0.137	0.458	0.229	0.275	0.183	0.000	0.000	0.000	1.283
NNW	0.000	0.000	0.779	0.458	0.458	0.504	0.046	0.000	0.000	2.245
SUBTOTAL	0.000	3.252	16.033	6.459	2.336	1.099	0.046	0.000	0.000	29.226

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS E	638
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	638
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2183
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 3.24

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.046	1.283	0.275	0.000	0.000	0.000	0.000	0.000	1.603
NNE	0.000	0.092	0.641	0.641	0.046	0.000	0.000	0.000	0.000	1.420
NE	0.000	0.229	0.641	0.046	0.000	0.000	0.000	0.000	0.000	0.916
ENE	0.000	0.183	0.733	0.183	0.000	0.000	0.000	0.000	0.000	1.099
E	0.000	0.412	1.466	0.183	0.046	0.000	0.000	0.000	0.000	2.107
ESE	0.000	0.321	0.779	0.137	0.046	0.000	0.000	0.000	0.000	1.283
SE	0.000	0.412	0.321	0.046	0.000	0.000	0.000	0.000	0.000	0.779
SSE	0.000	0.229	0.275	0.000	0.000	0.000	0.000	0.000	0.000	0.504
S	0.000	0.137	0.183	0.000	0.000	0.000	0.000	0.000	0.000	0.321
SSW	0.000	0.092	0.183	0.000	0.000	0.000	0.000	0.000	0.000	0.275
SW	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.092
WSW	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.092
W	0.000	0.092	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.183
WNW	0.000	0.046	0.092	0.046	0.000	0.046	0.000	0.000	0.000	0.229
NW	0.000	0.000	0.229	0.000	0.000	0.000	0.000	0.000	0.000	0.229
NNW	0.000	0.046	0.550	0.366	0.000	0.000	0.000	0.000	0.000	0.962
SUBTOTAL	0.000	2.382	7.558	1.970	0.137	0.046	0.000	0.000	0.000	12.093

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS F	264
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	264
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2183
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 2.50

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.026	1.328	1.008	0.183	0.000	0.000	0.000	0.000	0.000	2.545
NNE	0.012	0.596	0.458	0.046	0.000	0.000	0.000	0.000	0.000	1.111
NE	0.009	0.229	0.596	0.000	0.000	0.000	0.000	0.000	0.000	0.834
ENE	0.009	0.412	0.366	0.046	0.000	0.000	0.000	0.000	0.000	0.833
E	0.006	0.321	0.229	0.000	0.000	0.000	0.000	0.000	0.000	0.556
ESE	0.004	0.137	0.229	0.000	0.000	0.000	0.000	0.000	0.000	0.371
SE	0.005	0.275	0.183	0.000	0.000	0.000	0.000	0.000	0.000	0.463
SSE	0.002	0.046	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.139
S	0.001	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
SW	0.001	0.092	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.138
WSW	0.001	0.046	0.000	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	0.002	0.137	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.185
NW	0.004	0.275	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.371
NNW	0.012	0.870	0.183	0.092	0.000	0.000	0.000	0.000	0.000	1.157
SUBTOTAL	0.092	4.810	3.436	0.412	0.046	0.000	0.000	0.000	0.000	8.795

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS G	192
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	192
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2183
TOTAL HOURS CALM	2

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 1.64

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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*Table 6C 3<sup>rd</sup> Quarter JFD - Ground Level Releases*

Joint Frequency Distribution In Percent

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.046	0.137	0.000	0.000	0.000	0.183
NNE	0.000	0.000	0.000	0.000	0.046	0.137	0.000	0.000	0.000	0.183
NE	0.000	0.000	0.000	0.000	0.000	0.091	0.000	0.000	0.000	0.091
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.091
ESE	0.000	0.000	0.365	0.457	0.046	0.000	0.000	0.000	0.000	0.868
SE	0.000	0.000	1.142	1.142	0.000	0.000	0.000	0.000	0.000	2.283
SSE	0.000	0.000	1.826	0.822	0.000	0.000	0.000	0.000	0.000	2.648
S	0.000	0.000	0.639	0.320	0.000	0.000	0.000	0.000	0.000	0.959
SSW	0.000	0.000	0.320	0.183	0.000	0.000	0.000	0.000	0.000	0.502
SW	0.000	0.000	0.274	0.091	0.000	0.000	0.000	0.000	0.000	0.365
WSW	0.000	0.000	0.091	0.274	0.137	0.000	0.000	0.000	0.000	0.502
W	0.000	0.000	0.000	0.183	0.548	0.411	0.000	0.000	0.000	1.142
WNW	0.000	0.000	0.000	0.000	0.183	0.548	0.000	0.000	0.000	0.731
NW	0.000	0.000	0.000	0.000	0.046	0.137	0.046	0.000	0.000	0.228
NNW	0.000	0.000	0.000	0.000	0.046	0.502	0.000	0.000	0.000	0.548
SUBTOTAL	0.000	0.000	4.703	3.516	1.096	1.963	0.046	0.000	0.000	11.324

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2190
TOTAL HOURS OF STABILITY CLASS A	248
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	248
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2190
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 4.78

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.046	0.000	0.000	0.000	0.000	0.046
NNE	0.000	0.000	0.000	0.000	0.046	0.091	0.000	0.000	0.000	0.137
NE	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.046	0.091	0.000	0.000	0.000	0.000	0.000	0.137
ESE	0.000	0.000	0.091	0.183	0.000	0.000	0.000	0.000	0.000	0.274
SE	0.000	0.000	0.639	0.046	0.000	0.000	0.000	0.000	0.000	0.685
SSE	0.000	0.000	0.639	0.046	0.000	0.000	0.000	0.000	0.000	0.685
S	0.000	0.000	0.548	0.183	0.000	0.000	0.000	0.000	0.000	0.731
SSW	0.000	0.000	0.228	0.228	0.000	0.000	0.000	0.000	0.000	0.457
SW	0.000	0.000	0.274	0.091	0.000	0.000	0.000	0.000	0.000	0.365
WSW	0.000	0.000	0.046	0.274	0.091	0.000	0.000	0.000	0.000	0.411
W	0.000	0.000	0.091	0.274	0.457	0.091	0.000	0.000	0.000	0.913
WNW	0.000	0.000	0.000	0.046	0.274	0.046	0.000	0.000	0.000	0.365
NW	0.000	0.000	0.000	0.046	0.046	0.091	0.000	0.000	0.000	0.183
NNW	0.000	0.000	0.000	0.000	0.091	0.320	0.000	0.000	0.000	0.411
SUBTOTAL	0.000	0.000	2.603	1.507	1.050	0.685	0.000	0.000	0.000	5.845

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2190
TOTAL HOURS OF STABILITY CLASS B	128
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	128
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2190
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 4.51

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.046	0.000	0.046	0.000	0.000	0.000	0.091
NNE	0.000	0.000	0.000	0.091	0.183	0.365	0.000	0.000	0.000	0.639
NE	0.000	0.000	0.000	0.046	0.091	0.000	0.000	0.000	0.000	0.137
ENE	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
E	0.000	0.000	0.091	0.000	0.046	0.000	0.000	0.000	0.000	0.137
ESE	0.000	0.000	0.228	0.137	0.046	0.000	0.000	0.000	0.000	0.411
SE	0.000	0.000	0.594	0.046	0.000	0.000	0.000	0.000	0.000	0.639
SSE	0.000	0.000	0.731	0.000	0.000	0.000	0.000	0.000	0.000	0.731
S	0.000	0.000	0.594	0.046	0.000	0.000	0.000	0.000	0.000	0.639
SSW	0.000	0.000	0.502	0.000	0.000	0.000	0.000	0.000	0.000	0.502
SW	0.000	0.000	0.137	0.183	0.000	0.000	0.000	0.000	0.000	0.320
WSW	0.000	0.000	0.365	0.137	0.046	0.000	0.000	0.000	0.000	0.548
W	0.000	0.000	0.091	0.457	0.320	0.137	0.000	0.000	0.000	1.005
WNW	0.000	0.000	0.000	0.137	0.046	0.183	0.046	0.000	0.000	0.411
NW	0.000	0.000	0.000	0.000	0.046	0.137	0.046	0.000	0.000	0.228
NNW	0.000	0.000	0.000	0.000	0.091	0.091	0.000	0.000	0.000	0.183
SUBTOTAL	0.000	0.000	3.379	1.324	0.913	0.959	0.091	0.000	0.000	6.667

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2190
TOTAL HOURS OF STABILITY CLASS C	146
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	146
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2190
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 4.61

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.274	0.320	0.274	0.091	0.000	0.000	0.000	0.959
NNE	0.000	0.000	0.411	0.411	0.274	0.274	0.000	0.000	0.000	1.370
NE	0.000	0.000	0.320	0.411	0.685	0.183	0.046	0.000	0.000	1.644
ENE	0.000	0.000	0.639	0.046	0.320	0.046	0.000	0.000	0.000	1.050
E	0.000	0.091	0.639	1.005	0.502	0.091	0.000	0.000	0.000	2.329
ESE	0.000	0.046	0.731	0.685	0.000	0.046	0.000	0.000	0.000	1.507
SE	0.000	0.000	0.685	0.091	0.000	0.000	0.000	0.000	0.000	0.776
SSE	0.000	0.091	1.416	0.183	0.000	0.000	0.000	0.000	0.000	1.689
S	0.000	0.000	2.100	0.365	0.000	0.000	0.000	0.000	0.000	2.466
SSW	0.000	0.091	2.055	0.320	0.000	0.000	0.000	0.000	0.000	2.466
SW	0.000	0.046	0.868	0.046	0.000	0.000	0.000	0.000	0.000	0.959
WSW	0.000	0.091	1.963	0.639	0.000	0.046	0.000	0.000	0.000	2.740
W	0.000	0.000	1.735	1.187	0.411	0.046	0.000	0.000	0.000	3.379
WNW	0.000	0.000	0.091	0.411	0.091	0.411	0.000	0.000	0.000	1.005
NW	0.000	0.000	0.274	0.365	0.228	0.228	0.137	0.000	0.000	1.233
NNW	0.000	0.000	0.365	0.594	0.411	0.320	0.000	0.000	0.000	1.689
SUBTOTAL	0.000	0.457	14.566	7.078	3.196	1.781	0.183	0.000	0.000	27.260

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2190  
 TOTAL HOURS OF STABILITY CLASS D 597  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 597  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2190  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 3.87

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.137	1.781	1.142	0.137	0.046	0.000	0.000	0.000	3.242
NNE	0.000	0.183	1.324	1.370	0.776	0.457	0.000	0.000	0.000	4.110
NE	0.000	0.091	0.868	0.594	0.639	0.274	0.000	0.000	0.000	2.466
ENE	0.000	0.183	2.192	0.822	0.091	0.000	0.000	0.000	0.000	3.288
E	0.000	0.274	2.831	3.196	0.548	0.000	0.000	0.000	0.000	6.849
ESE	0.000	0.365	1.416	0.320	0.000	0.000	0.000	0.000	0.000	2.100
SE	0.000	0.228	0.959	0.000	0.000	0.000	0.000	0.000	0.000	1.187
SSE	0.000	0.411	0.685	0.000	0.000	0.000	0.000	0.000	0.000	1.096
S	0.000	0.274	0.822	0.228	0.000	0.000	0.000	0.000	0.000	1.324
SSW	0.000	0.137	0.548	0.000	0.000	0.000	0.000	0.000	0.000	0.685
SW	0.000	0.228	0.228	0.000	0.000	0.000	0.000	0.000	0.000	0.457
WSW	0.000	0.091	0.731	0.274	0.000	0.000	0.000	0.000	0.000	1.096
W	0.000	0.046	1.005	0.411	0.000	0.046	0.000	0.000	0.000	1.507
WNW	0.000	0.091	0.183	0.091	0.137	0.000	0.000	0.000	0.000	0.502
NW	0.000	0.000	0.320	0.091	0.091	0.000	0.000	0.000	0.000	0.502
NNW	0.000	0.091	0.822	0.411	0.137	0.091	0.000	0.000	0.000	1.553
SUBTOTAL	0.000	2.831	16.712	8.950	2.557	0.913	0.000	0.000	0.000	31.963

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2190
TOTAL HOURS OF STABILITY CLASS E	700
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	700
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2190
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 3.33

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.274	1.553	0.228	0.000	0.000	0.000	0.000	0.000	2.055
NNE	0.000	0.228	1.142	0.137	0.046	0.000	0.000	0.000	0.000	1.553
NE	0.000	0.183	0.639	0.091	0.091	0.000	0.000	0.000	0.000	1.005
ENE	0.000	0.183	1.050	0.502	0.000	0.000	0.000	0.000	0.000	1.735
E	0.000	0.274	1.187	0.776	0.000	0.000	0.000	0.000	0.000	2.237
ESE	0.000	0.274	0.365	0.046	0.000	0.000	0.000	0.000	0.000	0.685
SE	0.000	0.046	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.137
SSE	0.000	0.046	0.228	0.000	0.000	0.000	0.000	0.000	0.000	0.274
S	0.000	0.091	0.137	0.000	0.000	0.000	0.000	0.000	0.000	0.228
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.091
WSW	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
W	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
WNW	0.000	0.000	0.046	0.000	0.046	0.000	0.000	0.000	0.000	0.091
NW	0.000	0.091	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.137
NNW	0.000	0.320	0.685	0.000	0.046	0.000	0.000	0.000	0.000	1.050
SUBTOTAL	0.000	2.100	7.215	1.826	0.228	0.000	0.000	0.000	0.000	11.370

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2190
TOTAL HOURS OF STABILITY CLASS F	249
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	249
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2190
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 2.50  
NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.014	0.365	1.187	0.183	0.000	0.000	0.000	0.000	0.000	1.749
NNE	0.010	0.411	0.731	0.137	0.000	0.000	0.000	0.000	0.000	1.289
NE	0.007	0.320	0.411	0.000	0.000	0.000	0.000	0.000	0.000	0.737
ENE	0.004	0.183	0.228	0.091	0.046	0.000	0.000	0.000	0.000	0.552
E	0.002	0.000	0.228	0.000	0.000	0.000	0.000	0.000	0.000	0.230
ESE	0.002	0.091	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.184
SE	0.002	0.137	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.184
SSE	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
NNW	0.005	0.320	0.183	0.000	0.000	0.000	0.000	0.000	0.000	0.507
SUBTOTAL	0.046	1.918	3.151	0.411	0.046	0.000	0.000	0.000	0.000	5.571

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2190
TOTAL HOURS OF STABILITY CLASS G	122
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	122
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2190
TOTAL HOURS CALM	1

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 2.08

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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*Table 6D 4<sup>th</sup> Quarter JFD - Ground Level Releases*

Joint Frequency Distribution In Percent

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Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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
NNE	0.000	0.000	0.000	0.000	0.045	0.045	0.000	0.000	0.000	0.091
NE	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
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	0.091	0.000	0.000	0.000	0.000	0.000	0.091
SE	0.000	0.000	0.318	0.364	0.000	0.000	0.000	0.000	0.000	0.682
SSE	0.000	0.000	0.545	0.545	0.000	0.000	0.000	0.000	0.000	1.091
S	0.000	0.000	0.227	0.136	0.000	0.000	0.000	0.000	0.000	0.364
SSW	0.000	0.000	0.000	0.091	0.000	0.000	0.000	0.000	0.000	0.091
SW	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.045
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	0.045	0.000	0.000	0.000	0.045
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.091	0.000	0.000	0.091
NNW	0.000	0.000	0.000	0.000	0.000	0.091	0.045	0.000	0.000	0.136
SUBTOTAL	0.000	0.000	1.091	1.273	0.045	0.182	0.136	0.000	0.000	2.727

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2200
TOTAL HOURS OF STABILITY CLASS A	60
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	60
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2200
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 4.52

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.182	0.182	0.000	0.000	0.000	0.364
NNE	0.000	0.000	0.000	0.000	0.000	0.136	0.000	0.000	0.000	0.136
NE	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
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	0.318	0.045	0.000	0.000	0.000	0.000	0.364
SE	0.000	0.000	0.136	0.182	0.000	0.000	0.000	0.000	0.000	0.318
SSE	0.000	0.000	0.091	0.091	0.000	0.000	0.000	0.000	0.000	0.182
S	0.000	0.000	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.136
SSW	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	0.045	0.000	0.000	0.000	0.000	0.000	0.045
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	0.045	0.045	0.000	0.000	0.091
WNW	0.000	0.000	0.000	0.000	0.000	0.091	0.000	0.000	0.000	0.091
NW	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.045
NNW	0.000	0.000	0.000	0.000	0.182	0.273	0.318	0.000	0.000	0.773
SUBTOTAL	0.000	0.000	0.364	0.636	0.409	0.773	0.364	0.000	0.000	2.545

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2200
TOTAL HOURS OF STABILITY CLASS B	56
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	56
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2200
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 7.37

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.045	0.227	0.091	0.000	0.000	0.000	0.364
NNE	0.000	0.000	0.000	0.000	0.045	0.136	0.000	0.000	0.000	0.182
NE	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.045
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.227	0.045	0.000	0.000	0.000	0.000	0.273
SE	0.000	0.000	0.227	0.045	0.000	0.000	0.000	0.000	0.000	0.273
SSE	0.000	0.000	0.318	0.091	0.000	0.000	0.000	0.000	0.000	0.409
S	0.000	0.000	0.273	0.045	0.000	0.000	0.000	0.000	0.000	0.318
SSW	0.000	0.000	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.091
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.227	0.045	0.000	0.000	0.000	0.000	0.273
W	0.000	0.000	0.000	0.045	0.000	0.045	0.045	0.000	0.000	0.136
WNW	0.000	0.000	0.000	0.000	0.045	0.273	0.045	0.000	0.000	0.364
NW	0.000	0.000	0.000	0.000	0.045	0.273	0.136	0.000	0.000	0.455
NNW	0.000	0.000	0.000	0.045	0.045	0.091	0.045	0.000	0.000	0.227
SUBTOTAL	0.000	0.000	0.909	0.773	0.545	0.909	0.273	0.000	0.000	3.409

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2200
TOTAL HOURS OF STABILITY CLASS C	75
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	75
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2200
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 6.38

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.273	0.909	1.000	0.455	0.000	0.000	0.000	2.636
NNE	0.000	0.000	0.227	1.000	1.000	0.182	0.136	0.000	0.000	2.545
NE	0.000	0.000	0.091	0.545	0.409	0.227	0.000	0.000	0.000	1.273
ENE	0.000	0.045	0.273	0.227	0.318	0.091	0.000	0.000	0.000	0.955
E	0.000	0.000	0.545	0.409	0.182	0.227	0.000	0.000	0.000	1.364
ESE	0.000	0.000	0.909	1.500	0.045	0.045	0.000	0.000	0.000	2.500
SE	0.000	0.045	1.773	0.455	0.000	0.000	0.000	0.000	0.000	2.273
SSE	0.000	0.000	1.909	0.318	0.000	0.000	0.000	0.000	0.000	2.227
S	0.000	0.045	0.818	0.000	0.000	0.000	0.000	0.000	0.000	0.864
SSW	0.000	0.000	0.591	0.045	0.000	0.000	0.000	0.000	0.000	0.636
SW	0.000	0.000	0.409	0.045	0.000	0.000	0.000	0.000	0.000	0.455
WSW	0.000	0.045	0.500	0.545	0.091	0.091	0.000	0.000	0.000	1.273
W	0.000	0.000	0.727	1.000	0.727	0.727	0.045	0.000	0.000	3.227
WNW	0.000	0.000	0.273	0.591	0.455	0.591	1.000	0.045	0.000	2.955
NW	0.000	0.000	0.227	0.909	0.455	1.273	1.500	0.000	0.000	4.364
NNW	0.000	0.000	0.273	0.591	0.364	1.455	0.136	0.000	0.000	2.818
SUBTOTAL	0.000	0.182	9.818	9.091	5.045	5.364	2.818	0.045	0.000	32.364

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2200  
TOTAL HOURS OF STABILITY CLASS D 712  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 712  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2200  
TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 5.92

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.003	0.000	0.955	0.545	0.455	0.045	0.000	0.000	0.000	2.003
NNE	0.003	0.091	0.818	0.591	0.182	0.091	0.000	0.000	0.000	1.775
NE	0.001	0.136	0.182	0.636	0.227	0.091	0.000	0.000	0.000	1.274
ENE	0.003	0.091	0.955	0.364	0.227	0.182	0.000	0.000	0.000	1.821
E	0.007	0.000	2.227	1.455	0.227	0.091	0.000	0.000	0.000	4.007
ESE	0.008	0.318	2.455	2.409	0.227	0.000	0.000	0.000	0.000	5.417
SE	0.006	0.318	1.636	0.364	0.000	0.000	0.000	0.000	0.000	2.324
SSE	0.005	0.091	1.409	1.409	0.455	0.045	0.000	0.000	0.000	3.414
S	0.002	0.136	0.545	0.455	0.227	0.000	0.000	0.000	0.000	1.366
SSW	0.000	0.045	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.091
SW	0.001	0.136	0.273	0.091	0.000	0.000	0.000	0.000	0.000	0.501
WSW	0.002	0.182	0.455	0.045	0.000	0.045	0.000	0.000	0.000	0.729
W	0.002	0.045	0.591	0.818	0.227	0.091	0.000	0.000	0.000	1.775
WNW	0.001	0.045	0.318	0.182	0.227	0.136	0.045	0.000	0.000	0.956
NW	0.001	0.000	0.182	0.136	0.091	0.273	0.000	0.000	0.000	0.682
NNW	0.001	0.000	0.364	0.545	0.455	0.364	0.000	0.000	0.000	1.728
SUBTOTAL	0.045	1.636	13.409	10.045	3.227	1.455	0.045	0.000	0.000	29.864

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2200  
TOTAL HOURS OF STABILITY CLASS E 657  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 657  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2200  
TOTAL HOURS CALM 1

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 3.79

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.227	1.364	0.182	0.000	0.000	0.000	0.000	0.000	1.773
NNE	0.000	0.273	0.409	0.273	0.045	0.000	0.000	0.000	0.000	1.000
NE	0.000	0.091	0.136	0.045	0.000	0.000	0.000	0.000	0.000	0.273
ENE	0.000	0.182	0.818	0.182	0.045	0.000	0.000	0.000	0.000	1.227
E	0.000	0.091	2.136	0.545	0.000	0.000	0.000	0.000	0.000	2.773
ESE	0.000	0.273	1.318	0.318	0.000	0.000	0.000	0.000	0.000	1.909
SE	0.000	0.273	1.091	0.045	0.000	0.000	0.000	0.000	0.000	1.409
SSE	0.000	0.182	1.136	0.500	0.273	0.000	0.000	0.000	0.000	2.091
S	0.000	0.045	0.091	0.000	0.091	0.000	0.000	0.000	0.000	0.227
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.045	0.045	0.045	0.000	0.000	0.000	0.000	0.000	0.136
WSW	0.000	0.091	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.182
W	0.000	0.000	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.136
WNW	0.000	0.091	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.182
NW	0.000	0.136	0.091	0.000	0.045	0.000	0.000	0.000	0.000	0.273
NNW	0.000	0.091	0.636	0.136	0.045	0.000	0.000	0.000	0.000	0.909
SUBTOTAL	0.000	2.091	9.591	2.273	0.545	0.000	0.000	0.000	0.000	14.500

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2200  
TOTAL HOURS OF STABILITY CLASS F 319  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F 319  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2200  
TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 2.61

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.019	1.227	1.500	0.455	0.000	0.000	0.000	0.000	0.000	3.201
NNE	0.017	1.545	0.864	0.318	0.000	0.000	0.000	0.000	0.000	2.744
NE	0.012	0.864	0.818	0.045	0.000	0.000	0.000	0.000	0.000	1.739
ENE	0.010	0.409	0.955	0.136	0.045	0.000	0.000	0.000	0.000	1.555
E	0.008	0.364	0.818	0.000	0.000	0.000	0.000	0.000	0.000	1.190
ESE	0.008	0.318	0.818	0.000	0.000	0.000	0.000	0.000	0.000	1.144
SE	0.005	0.227	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.732
SSE	0.005	0.136	0.636	0.409	0.000	0.000	0.000	0.000	0.000	1.187
S	0.001	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.137
SSW	0.001	0.136	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.183
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.001	0.045	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.092
WNW	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
NW	0.001	0.182	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.183
NNW	0.003	0.273	0.091	0.091	0.000	0.000	0.000	0.000	0.000	0.457
SUBTOTAL	0.091	5.909	7.091	1.455	0.045	0.000	0.000	0.000	0.000	14.591

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2200
TOTAL HOURS OF STABILITY CLASS G	321
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	321
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2200
TOTAL HOURS CALM	2

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 1.95

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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*Table 7A 1<sup>st</sup> Quarter JFD - Split Level Releases*

Joint Frequency Distribution In Percent

(Ground Level Release Mode and Elevated Release Mode)

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.005	0.006	0.000	0.000	0.000	0.011
NNE	0.000	0.000	0.000	0.000	0.000	0.050	0.000	0.000	0.000	0.050
NE	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
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	0.004	0.075	0.015	0.000	0.000	0.000	0.000	0.094
SSE	0.000	0.000	0.022	0.059	0.009	0.000	0.000	0.000	0.000	0.090
S	0.000	0.000	0.008	0.019	0.000	0.000	0.000	0.000	0.000	0.027
SSW	0.000	0.000	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.008
SW	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.006
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	0.009	0.000	0.000	0.000	0.009
WNW	0.000	0.000	0.000	0.000	0.000	0.016	0.016	0.000	0.000	0.032
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.000	0.000	0.076
NNW	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.005
SUBTOTAL	0.000	0.000	0.038	0.163	0.034	0.081	0.092	0.000	0.000	0.408

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 282.180  
 TOTAL HOURS OF STABILITY CLASS A 12.330  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A 8.870

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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 Units 1, 2 and 3  
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 Meteorological Data

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.018	0.013	0.000	0.000	0.000	0.031
NNE	0.000	0.000	0.000	0.000	0.017	0.030	0.000	0.000	0.000	0.047
NE	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
E	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.004
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	0.020	0.000	0.000	0.000	0.000	0.000	0.020
SSE	0.000	0.000	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.013
S	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
SSW	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.006
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.005	0.000	0.020	0.000	0.000	0.000	0.025
WNW	0.000	0.000	0.000	0.000	0.000	0.039	0.026	0.000	0.000	0.065
NW	0.000	0.000	0.000	0.000	0.000	0.015	0.057	0.000	0.000	0.072
NNW	0.000	0.000	0.000	0.000	0.003	0.017	0.000	0.000	0.000	0.020
SUBTOTAL	0.000	0.000	0.010	0.039	0.042	0.134	0.083	0.000	0.000	0.308

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 282.180  
 TOTAL HOURS OF STABILITY CLASS B 22.340  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B 6.690

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.004	0.029	0.006	0.000	0.000	0.000	0.039
NNE	0.000	0.000	0.000	0.000	0.004	0.007	0.000	0.000	0.000	0.011
NE	0.000	0.000	0.000	0.000	0.006	0.006	0.000	0.000	0.000	0.013
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	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	0.010	0.034	0.000	0.000	0.000	0.000	0.000	0.044
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	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
SSW	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	0.006	0.000	0.000	0.000	0.000	0.000	0.006
WSW	0.000	0.000	0.000	0.000	0.007	0.017	0.000	0.000	0.000	0.024
W	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000	0.014
WNW	0.000	0.000	0.000	0.000	0.000	0.046	0.038	0.000	0.000	0.084
NW	0.000	0.000	0.000	0.000	0.000	0.045	0.056	0.000	0.000	0.101
NNW	0.000	0.000	0.000	0.000	0.011	0.000	0.018	0.000	0.000	0.029
SUBTOTAL	0.000	0.000	0.014	0.043	0.057	0.141	0.112	0.000	0.000	0.368

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 282.180  
 TOTAL HOURS OF STABILITY CLASS C 59.900  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C 7.990

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.038	0.224	0.110	0.000	0.000	0.000	0.372
NNE	0.000	0.000	0.002	0.032	0.142	0.240	0.000	0.000	0.000	0.416
NE	0.000	0.000	0.000	0.024	0.063	0.116	0.000	0.000	0.000	0.203
ENE	0.000	0.000	0.000	0.005	0.002	0.000	0.000	0.000	0.000	0.007
E	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.000	0.000	0.007
ESE	0.000	0.000	0.009	0.044	0.000	0.000	0.000	0.000	0.000	0.052
SE	0.000	0.000	0.031	0.141	0.025	0.000	0.000	0.000	0.000	0.197
SSE	0.000	0.000	0.091	0.117	0.049	0.000	0.000	0.000	0.000	0.257
S	0.000	0.000	0.022	0.007	0.034	0.000	0.000	0.000	0.000	0.063
SSW	0.000	0.000	0.027	0.028	0.000	0.000	0.000	0.000	0.000	0.055
SW	0.000	0.000	0.010	0.006	0.000	0.000	0.000	0.000	0.000	0.016
WSW	0.000	0.000	0.004	0.035	0.064	0.009	0.000	0.000	0.000	0.112
W	0.000	0.000	0.009	0.049	0.136	0.097	0.000	0.000	0.000	0.290
WNW	0.000	0.000	0.000	0.005	0.040	0.207	0.156	0.074	0.000	0.482
NW	0.000	0.000	0.000	0.007	0.050	0.277	0.351	0.082	0.000	0.767
NNW	0.000	0.000	0.000	0.002	0.081	0.247	0.035	0.000	0.000	0.365
SUBTOTAL	0.000	0.000	0.204	0.543	0.916	1.302	0.543	0.155	0.000	3.663

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 282.180  
TOTAL HOURS OF STABILITY CLASS D 792.060  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D 79.640

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.017	0.040	0.105	0.027	0.000	0.000	0.000	0.189
NNE	0.000	0.000	0.014	0.068	0.081	0.052	0.000	0.000	0.000	0.216
NE	0.000	0.000	0.004	0.044	0.034	0.037	0.018	0.000	0.000	0.137
ENE	0.000	0.000	0.000	0.015	0.023	0.006	0.000	0.000	0.000	0.044
E	0.000	0.000	0.029	0.026	0.006	0.000	0.000	0.000	0.000	0.061
ESE	0.000	0.005	0.120	0.060	0.041	0.000	0.000	0.000	0.000	0.226
SE	0.000	0.016	0.236	0.089	0.013	0.000	0.000	0.000	0.000	0.354
SSE	0.000	0.017	0.325	0.420	0.196	0.000	0.000	0.000	0.000	0.957
S	0.000	0.009	0.177	0.260	0.274	0.040	0.000	0.000	0.000	0.759
SSW	0.000	0.000	0.034	0.067	0.019	0.000	0.000	0.000	0.000	0.120
SW	0.000	0.000	0.028	0.008	0.000	0.000	0.000	0.000	0.000	0.036
WSW	0.000	0.000	0.035	0.053	0.007	0.000	0.000	0.000	0.000	0.096
W	0.000	0.000	0.029	0.064	0.049	0.017	0.018	0.000	0.000	0.177
WNW	0.000	0.000	0.014	0.033	0.043	0.068	0.075	0.000	0.000	0.231
NW	0.000	0.000	0.002	0.017	0.020	0.116	0.106	0.000	0.000	0.263
NNW	0.000	0.000	0.021	0.052	0.021	0.048	0.000	0.000	0.000	0.142
SUBTOTAL	0.000	0.046	1.086	1.316	0.934	0.410	0.218	0.000	0.000	4.009

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 282.180  
 TOTAL HOURS OF STABILITY CLASS E 963.170  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 87.150

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.026	0.020	0.008	0.000	0.000	0.000	0.000	0.054
NNE	0.000	0.000	0.021	0.008	0.015	0.008	0.000	0.000	0.000	0.052
NE	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	0.022	0.003	0.000	0.000	0.000	0.000	0.000	0.025
E	0.000	0.000	0.045	0.014	0.000	0.000	0.000	0.000	0.000	0.059
ESE	0.000	0.017	0.123	0.026	0.000	0.000	0.000	0.000	0.000	0.166
SE	0.000	0.025	0.070	0.058	0.000	0.000	0.000	0.000	0.000	0.153
SSE	0.001	0.015	0.508	0.310	0.090	0.138	0.000	0.000	0.000	1.062
S	0.001	0.011	0.244	0.505	0.316	0.092	0.000	0.000	0.000	1.168
SSW	0.000	0.001	0.009	0.042	0.030	0.078	0.000	0.000	0.000	0.161
SW	0.000	0.006	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.025
WSW	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.006
W	0.000	0.000	0.004	0.000	0.008	0.010	0.000	0.000	0.000	0.022
WNW	0.000	0.000	0.006	0.005	0.013	0.000	0.000	0.000	0.000	0.023
NW	0.000	0.000	0.012	0.006	0.000	0.000	0.009	0.000	0.000	0.027
NNW	0.000	0.000	0.021	0.014	0.000	0.000	0.000	0.000	0.000	0.035
SUBTOTAL	0.003	0.074	1.137	1.011	0.479	0.326	0.009	0.000	0.000	3.039

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 282.180  
TOTAL HOURS OF STABILITY CLASS F 280.020  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F 66.060

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.011
NNE	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
NE	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	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.006
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
SE	0.000	0.043	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.115
SSE	0.000	0.025	0.479	0.272	0.091	0.000	0.000	0.000	0.000	0.867
S	0.000	0.000	0.109	0.030	0.013	0.000	0.000	0.000	0.000	0.153
SSW	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	0.009	0.000	0.000	0.000	0.000	0.009
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	0.007	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.012
NNW	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
SUBTOTAL	0.000	0.082	0.687	0.304	0.113	0.000	0.000	0.000	0.000	1.186

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 282.180  
 TOTAL HOURS OF STABILITY CLASS G 44.180  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G 25.780

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	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	0.038	0.000	0.000	0.038
SSE	0.000	0.000	0.000	0.000	0.000	0.080	0.000	0.000	0.000	0.080
S	0.000	0.000	0.000	0.000	0.000	0.041	0.000	0.000	0.000	0.041
SSW	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
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.121	0.038	0.000	0.000	0.159

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
 TOTAL HOURS OF ELEVATED RELEASES 1891.820  
 TOTAL HOURS OF STABILITY CLASS A 12.330  
 TOTAL HOURS OF ELEVATED STABILITY CLASS A 3.460

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBER

Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.040	0.000	0.000	0.000	0.040
NNE	0.000	0.000	0.000	0.000	0.000	0.080	0.037	0.000	0.000	0.117
NE	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
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	0.040	0.000	0.000	0.000	0.040
SE	0.000	0.000	0.000	0.000	0.086	0.000	0.000	0.000	0.000	0.086
SSE	0.000	0.000	0.000	0.000	0.000	0.083	0.075	0.000	0.000	0.158
S	0.000	0.000	0.000	0.000	0.000	0.080	0.000	0.000	0.000	0.080
SSW	0.000	0.000	0.000	0.000	0.043	0.042	0.000	0.000	0.000	0.085
SW	0.000	0.000	0.000	0.000	0.043	0.000	0.000	0.000	0.000	0.043
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	0.037	0.000	0.000	0.037
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	0.034	0.000	0.034
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.172	0.365	0.149	0.034	0.000	0.720

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
TOTAL HOURS OF ELEVATED RELEASES 1891.820  
TOTAL HOURS OF STABILITY CLASS B 22.340  
TOTAL HOURS OF ELEVATED STABILITY CLASS B 15.650

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.043	0.448	0.000	0.000	0.000	0.491
NNE	0.000	0.000	0.000	0.000	0.043	0.163	0.075	0.000	0.000	0.281
NE	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
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	0.091	0.080	0.000	0.000	0.000	0.171
SE	0.000	0.000	0.000	0.000	0.091	0.042	0.000	0.000	0.000	0.133
SSE	0.000	0.000	0.000	0.046	0.046	0.000	0.038	0.000	0.000	0.130
S	0.000	0.000	0.000	0.092	0.000	0.080	0.037	0.000	0.000	0.209
SSW	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	0.041	0.000	0.000	0.000	0.041
WSW	0.000	0.000	0.000	0.000	0.000	0.041	0.000	0.000	0.000	0.041
W	0.000	0.000	0.000	0.000	0.000	0.121	0.149	0.000	0.000	0.270
WNW	0.000	0.000	0.000	0.000	0.000	0.121	0.075	0.030	0.000	0.226
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.184	0.169	0.000	0.353
NNW	0.000	0.000	0.000	0.000	0.000	0.041	0.000	0.000	0.000	0.041
SUBTOTAL	0.000	0.000	0.000	0.138	0.313	1.178	0.559	0.199	0.000	2.388

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
 TOTAL HOURS OF ELEVATED RELEASES 1891.820  
 TOTAL HOURS OF STABILITY CLASS C 59.900  
 TOTAL HOURS OF ELEVATED STABILITY CLASS C 51.910

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBER

**Browns Ferry Nuclear Plant  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.092	0.230	0.087	2.153	1.243	0.027	0.000	3.831
NNE	0.000	0.000	0.276	0.230	0.444	1.995	0.793	0.000	0.000	3.738
NE	0.000	0.000	0.092	0.322	0.663	1.014	0.038	0.000	0.000	2.129
ENE	0.000	0.000	0.230	0.138	0.222	0.041	0.000	0.000	0.000	0.631
E	0.000	0.000	0.092	0.230	0.092	0.083	0.000	0.000	0.000	0.497
ESE	0.000	0.000	0.092	0.460	0.352	0.366	0.076	0.000	0.000	1.345
SE	0.000	0.000	0.046	0.414	0.315	0.321	0.898	0.035	0.000	2.028
SSE	0.000	0.000	0.138	0.552	0.315	0.518	0.339	0.172	0.026	2.060
S	0.000	0.000	0.414	0.322	0.265	0.567	0.076	0.129	0.000	1.773
SSW	0.000	0.000	0.138	0.230	0.175	0.240	0.110	0.000	0.000	0.893
SW	0.000	0.000	0.184	0.276	0.000	0.448	0.000	0.000	0.000	0.908
WSW	0.000	0.000	0.184	0.276	0.310	0.845	0.189	0.000	0.000	1.803
W	0.000	0.000	0.092	0.184	0.258	1.774	0.747	0.000	0.000	3.055
WNW	0.000	0.000	0.092	0.276	0.265	1.363	1.043	0.235	0.029	3.303
NW	0.000	0.000	0.046	0.000	0.046	0.996	1.453	0.465	0.000	3.006
NNW	0.000	0.000	0.138	0.046	0.087	0.682	0.787	0.030	0.000	1.770
SUBTOTAL	0.000	0.000	2.346	4.186	3.894	13.405	7.792	1.093	0.054	32.770

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
TOTAL HOURS OF ELEVATED RELEASES 1891.820  
TOTAL HOURS OF STABILITY CLASS D 792.060  
TOTAL HOURS OF ELEVATED STABILITY CLASS D 712.420

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBER

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.046	0.173	0.854	0.301	0.000	0.000	1.512
NNE	0.000	0.000	0.184	0.414	0.270	0.651	0.262	0.000	0.000	1.781
NE	0.000	0.000	0.184	0.322	0.798	0.564	0.038	0.000	0.000	1.907
ENE	0.000	0.000	0.092	0.276	0.315	0.285	0.037	0.000	0.000	1.005
E	0.000	0.000	0.138	0.276	0.132	0.081	0.000	0.000	0.000	0.628
ESE	0.000	0.000	0.138	0.414	0.928	0.457	0.114	0.000	0.000	2.050
SE	0.000	0.000	0.230	0.460	0.927	2.251	1.127	0.320	0.010	5.325
SSE	0.000	0.000	0.184	0.322	0.888	1.406	1.315	0.336	0.004	4.454
S	0.000	0.046	0.138	0.506	0.748	1.487	2.457	0.816	0.012	6.211
SSW	0.000	0.000	0.230	0.552	0.263	1.745	1.723	0.356	0.006	4.874
SW	0.000	0.046	0.092	0.690	0.397	0.770	0.038	0.000	0.000	2.034
WSW	0.000	0.046	0.046	0.874	0.533	0.657	0.076	0.036	0.000	2.268
W	0.000	0.000	0.000	0.460	0.793	0.860	0.186	0.028	0.000	2.327
WNW	0.000	0.000	0.184	0.138	0.221	0.606	0.300	0.000	0.000	1.449
NW	0.000	0.000	0.046	0.092	0.441	0.246	0.263	0.086	0.000	1.173
NNW	0.000	0.000	0.046	0.184	0.309	0.646	0.113	0.000	0.000	1.298
SUBTOTAL	0.000	0.138	2.070	6.026	8.136	13.567	8.350	1.977	0.032	40.295

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
TOTAL HOURS OF ELEVATED RELEASES 1891.820  
TOTAL HOURS OF STABILITY CLASS E 963.170  
TOTAL HOURS OF ELEVATED STABILITY CLASS E 876.020

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBER

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.092	0.000	0.043	0.042	0.000	0.000	0.000	0.178
NNE	0.000	0.000	0.092	0.046	0.086	0.000	0.000	0.000	0.000	0.224
NE	0.000	0.000	0.000	0.276	0.134	0.000	0.000	0.000	0.000	0.410
ENE	0.000	0.046	0.092	0.184	0.000	0.040	0.000	0.000	0.000	0.362
E	0.000	0.000	0.000	0.092	0.089	0.042	0.000	0.000	0.000	0.223
ESE	0.000	0.000	0.000	0.046	0.224	0.370	0.000	0.000	0.000	0.640
SE	0.000	0.000	0.046	0.046	0.134	0.966	0.401	0.232	0.010	1.835
SSE	0.000	0.000	0.000	0.046	0.132	0.517	0.823	0.250	0.009	1.777
S	0.000	0.000	0.000	0.230	0.304	0.723	0.786	0.137	0.005	2.184
SSW	0.000	0.000	0.092	0.138	0.088	0.200	0.075	0.000	0.000	0.592
SW	0.000	0.000	0.092	0.000	0.000	0.000	0.037	0.000	0.000	0.129
WSW	0.000	0.000	0.046	0.138	0.000	0.000	0.000	0.000	0.000	0.184
W	0.000	0.000	0.046	0.000	0.088	0.085	0.000	0.000	0.000	0.219
WNW	0.000	0.000	0.092	0.000	0.043	0.124	0.000	0.000	0.000	0.259
NW	0.000	0.000	0.046	0.046	0.178	0.043	0.000	0.000	0.000	0.313
NNW	0.000	0.000	0.000	0.184	0.046	0.083	0.000	0.000	0.000	0.312
SUBTOTAL	0.000	0.046	0.736	1.472	1.589	3.234	2.123	0.618	0.024	9.842

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
 TOTAL HOURS OF ELEVATED RELEASES 1891.820  
 TOTAL HOURS OF STABILITY CLASS F 280.020  
 TOTAL HOURS OF ELEVATED STABILITY CLASS F 213.960

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBER

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2020 - MAR 31, 2020

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	0.046	0.000	0.040	0.000	0.000	0.000	0.086
NNE	0.000	0.000	0.000	0.000	0.045	0.043	0.000	0.000	0.000	0.088
NE	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
E	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.092
ESE	0.000	0.000	0.000	0.000	0.089	0.000	0.000	0.000	0.000	0.089
SE	0.000	0.000	0.092	0.000	0.046	0.000	0.000	0.000	0.000	0.138
SSE	0.000	0.000	0.092	0.000	0.000	0.000	0.110	0.000	0.000	0.202
S	0.000	0.000	0.000	0.000	0.000	0.000	0.151	0.000	0.000	0.151
SSW	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
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.276	0.046	0.180	0.083	0.262	0.000	0.000	0.846

TOTAL HOURS OF VALID OBSERVATIONS 2174.000  
 TOTAL HOURS OF ELEVATED RELEASES 1891.820  
 TOTAL HOURS OF STABILITY CLASS G 44.180  
 TOTAL HOURS OF ELEVATED STABILITY CLASS G 18.400

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/05/05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



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*Table 7B 2<sup>nd</sup> Quarter JFD - Split Level Releases*

Joint Frequency Distribution In Percent

(Ground Level Release Mode and Elevated Release Mode)

Browns Ferry Nuclear Plant  
 Units 1, 2 and 3  
 2020 Annual Radioactive Effluent Release Report  
 Meteorological Data

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.071	0.000	0.000	0.000	0.071
NNE	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.008
NE	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
E	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.005
ESE	0.000	0.000	0.022	0.027	0.000	0.000	0.000	0.000	0.000	0.049
SE	0.000	0.000	0.041	0.027	0.000	0.000	0.000	0.000	0.000	0.069
SSE	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.047
S	0.000	0.000	0.038	0.009	0.000	0.000	0.000	0.000	0.000	0.047
SSW	0.000	0.000	0.004	0.008	0.000	0.000	0.000	0.000	0.000	0.011
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.069	0.064	0.000	0.133
NNW	0.000	0.000	0.000	0.000	0.000	0.035	0.022	0.000	0.000	0.058
SUBTOTAL	0.000	0.000	0.152	0.077	0.000	0.115	0.092	0.064	0.000	0.498

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 192.980  
 TOTAL HOURS OF STABILITY CLASS A 18.190  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A 10.880

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant**  
**Units 1, 2 and 3**  
**2020 Annual Radioactive Effluent Release Report**  
**Meteorological Data**

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.038	0.000	0.000	0.000	0.038
NNE	0.000	0.000	0.000	0.000	0.007	0.066	0.000	0.000	0.000	0.073
NE	0.000	0.000	0.000	0.000	0.000	0.025	0.000	0.000	0.000	0.025
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.008	0.047	0.000	0.000	0.000	0.000	0.000	0.055
SE	0.000	0.000	0.021	0.008	0.000	0.000	0.000	0.000	0.000	0.029
SSE	0.000	0.000	0.028	0.003	0.000	0.000	0.000	0.000	0.000	0.031
S	0.000	0.000	0.017	0.009	0.000	0.000	0.000	0.000	0.000	0.026
SSW	0.000	0.000	0.010	0.008	0.000	0.000	0.000	0.000	0.000	0.017
SW	0.000	0.000	0.011	0.005	0.000	0.000	0.000	0.000	0.000	0.016
WSW	0.000	0.000	0.003	0.008	0.000	0.000	0.000	0.000	0.000	0.011
W	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.005
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.000	0.000	0.032
NW	0.000	0.000	0.000	0.000	0.002	0.036	0.048	0.036	0.000	0.122
NNW	0.000	0.000	0.000	0.000	0.005	0.055	0.011	0.000	0.000	0.071
SUBTOTAL	0.000	0.000	0.098	0.088	0.018	0.221	0.091	0.036	0.000	0.552

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 192.980  
 TOTAL HOURS OF STABILITY CLASS B 43.410  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B 12.050

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.001	0.010	0.038	0.000	0.000	0.000	0.048
NNE	0.000	0.000	0.000	0.000	0.024	0.044	0.000	0.000	0.000	0.069
NE	0.000	0.000	0.000	0.000	0.000	0.027	0.019	0.000	0.000	0.045
ENE	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.005
E	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.004
ESE	0.000	0.000	0.004	0.020	0.016	0.000	0.000	0.000	0.000	0.039
SE	0.000	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.019
SSE	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.011
S	0.000	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.032
SSW	0.000	0.000	0.008	0.017	0.000	0.000	0.000	0.000	0.000	0.025
SW	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
WSW	0.000	0.000	0.000	0.026	0.006	0.000	0.000	0.000	0.000	0.032
W	0.000	0.000	0.000	0.017	0.028	0.009	0.000	0.000	0.000	0.055
WNW	0.000	0.000	0.000	0.000	0.005	0.030	0.027	0.000	0.000	0.062
NW	0.000	0.000	0.000	0.000	0.003	0.044	0.101	0.000	0.000	0.148
NNW	0.000	0.000	0.000	0.000	0.018	0.024	0.000	0.000	0.000	0.042
SUBTOTAL	0.000	0.000	0.077	0.085	0.116	0.215	0.146	0.000	0.000	0.639

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 192.980  
TOTAL HOURS OF STABILITY CLASS C 100.100  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C 13.960

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.013	0.069	0.052	0.024	0.000	0.000	0.158
NNE	0.000	0.000	0.000	0.021	0.064	0.052	0.000	0.000	0.000	0.137
NE	0.000	0.000	0.000	0.002	0.034	0.057	0.000	0.000	0.000	0.093
ENE	0.000	0.000	0.000	0.004	0.004	0.006	0.000	0.000	0.000	0.014
E	0.000	0.000	0.026	0.086	0.037	0.010	0.000	0.000	0.000	0.158
ESE	0.000	0.000	0.109	0.186	0.045	0.019	0.000	0.000	0.000	0.359
SE	0.000	0.000	0.056	0.025	0.000	0.000	0.000	0.000	0.000	0.081
SSE	0.000	0.004	0.129	0.020	0.000	0.000	0.000	0.000	0.000	0.153
S	0.000	0.000	0.071	0.026	0.000	0.000	0.000	0.000	0.000	0.096
SSW	0.000	0.000	0.110	0.060	0.000	0.000	0.000	0.000	0.000	0.171
SW	0.000	0.000	0.027	0.019	0.000	0.000	0.000	0.000	0.000	0.046
WSW	0.000	0.000	0.006	0.049	0.020	0.025	0.000	0.000	0.000	0.101
W	0.000	0.000	0.006	0.102	0.109	0.164	0.022	0.000	0.000	0.404
WNW	0.000	0.000	0.009	0.005	0.048	0.208	0.235	0.000	0.000	0.505
NW	0.000	0.000	0.000	0.007	0.058	0.273	0.105	0.000	0.000	0.443
NNW	0.000	0.000	0.000	0.018	0.052	0.070	0.059	0.000	0.000	0.198
SUBTOTAL	0.000	0.004	0.550	0.642	0.540	0.936	0.445	0.000	0.000	3.117

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 192.980  
TOTAL HOURS OF STABILITY CLASS D 971.540  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D 68.040

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.051	0.058	0.024	0.008	0.000	0.000	0.000	0.142
NNE	0.000	0.000	0.033	0.062	0.016	0.009	0.000	0.000	0.000	0.119
NE	0.000	0.000	0.005	0.020	0.006	0.007	0.000	0.000	0.000	0.038
ENE	0.000	0.002	0.060	0.040	0.007	0.000	0.000	0.000	0.000	0.109
E	0.000	0.011	0.226	0.257	0.094	0.018	0.000	0.000	0.000	0.605
ESE	0.000	0.015	0.279	0.131	0.081	0.023	0.000	0.000	0.000	0.529
SE	0.000	0.007	0.078	0.050	0.000	0.000	0.000	0.000	0.000	0.136
SSE	0.000	0.008	0.138	0.030	0.000	0.000	0.000	0.000	0.000	0.176
S	0.000	0.006	0.126	0.015	0.000	0.000	0.000	0.000	0.000	0.148
SSW	0.000	0.005	0.079	0.037	0.000	0.000	0.000	0.000	0.000	0.121
SW	0.000	0.000	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.025
WSW	0.000	0.000	0.011	0.022	0.000	0.016	0.000	0.000	0.000	0.049
W	0.000	0.000	0.015	0.066	0.027	0.008	0.000	0.000	0.000	0.115
WNW	0.000	0.000	0.001	0.004	0.012	0.007	0.000	0.000	0.000	0.024
NW	0.000	0.000	0.007	0.016	0.037	0.033	0.000	0.000	0.000	0.093
NNW	0.000	0.000	0.032	0.055	0.065	0.093	0.026	0.000	0.000	0.269
SUBTOTAL	0.000	0.054	1.165	0.862	0.369	0.223	0.026	0.000	0.000	2.698

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 192.980  
 TOTAL HOURS OF STABILITY CLASS E 717.580  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 58.900

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.095	0.041	0.000	0.000	0.000	0.000	0.000	0.136
NNE	0.000	0.000	0.048	0.090	0.008	0.000	0.000	0.000	0.000	0.145
NE	0.000	0.006	0.022	0.004	0.000	0.000	0.000	0.000	0.000	0.032
ENE	0.000	0.010	0.025	0.012	0.000	0.000	0.000	0.000	0.000	0.047
E	0.000	0.014	0.101	0.022	0.008	0.000	0.000	0.000	0.000	0.145
ESE	0.000	0.019	0.045	0.036	0.009	0.000	0.000	0.000	0.000	0.109
SE	0.000	0.029	0.032	0.022	0.000	0.000	0.000	0.000	0.000	0.083
SSE	0.000	0.005	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.038
S	0.000	0.007	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.041
SSW	0.000	0.010	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.029
SW	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
WSW	0.000	0.000	0.004	0.007	0.000	0.000	0.000	0.000	0.000	0.011
W	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
WNW	0.000	0.000	0.004	0.004	0.000	0.008	0.000	0.000	0.000	0.016
NW	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
NNW	0.000	0.000	0.047	0.049	0.000	0.000	0.000	0.000	0.000	0.096
SUBTOTAL	0.000	0.101	0.517	0.285	0.025	0.008	0.000	0.000	0.000	0.936

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 192.980  
TOTAL HOURS OF STABILITY CLASS F 253.260  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F 20.430

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.016	0.071	0.021	0.000	0.000	0.000	0.000	0.000	0.109
NNE	0.000	0.004	0.027	0.008	0.000	0.000	0.000	0.000	0.000	0.039
NE	0.000	0.004	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.040
ENE	0.000	0.016	0.020	0.002	0.000	0.000	0.000	0.000	0.000	0.038
E	0.000	0.038	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.044
ESE	0.000	0.014	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.029
SE	0.000	0.025	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.038
SSE	0.000	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.005
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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.007	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.015
WSW	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
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	0.006	0.000	0.000	0.000	0.000	0.006
NW	0.000	0.005	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.008
NNW	0.000	0.001	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.024
SUBTOTAL	0.000	0.135	0.205	0.053	0.006	0.000	0.000	0.000	0.000	0.399

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 192.980  
 TOTAL HOURS OF STABILITY CLASS G 78.920  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G 8.720

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.038	0.000	0.000	0.038
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	0.000	0.000	0.000	0.000	0.000	0.039	0.000	0.000	0.000	0.039
SSE	0.000	0.000	0.000	0.000	0.000	0.044	0.083	0.000	0.000	0.000	0.128
S	0.000	0.000	0.000	0.000	0.000	0.045	0.039	0.000	0.000	0.000	0.084
SSW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
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	0.000	0.000	0.046	0.089	0.162	0.038	0.000	0.000	0.000	0.335

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
 TOTAL HOURS OF ELEVATED RELEASES 1990.020  
 TOTAL HOURS OF STABILITY CLASS A 18.190  
 TOTAL HOURS OF ELEVATED STABILITY CLASS A 7.310

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.273	0.113	0.000	0.000	0.387
NNE	0.000	0.000	0.000	0.000	0.000	0.079	0.038	0.000	0.000	0.116
NE	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
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	0.046	0.043	0.122	0.000	0.000	0.000	0.211
SSE	0.000	0.000	0.000	0.046	0.044	0.000	0.000	0.000	0.000	0.089
S	0.000	0.000	0.000	0.092	0.134	0.043	0.000	0.000	0.000	0.268
SSW	0.000	0.000	0.000	0.137	0.000	0.000	0.000	0.000	0.000	0.137
SW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
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	0.046	0.000	0.000	0.037	0.034	0.000	0.116
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.027	0.000	0.066
SUBTOTAL	0.000	0.000	0.000	0.412	0.221	0.517	0.225	0.061	0.000	1.437

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
 TOTAL HOURS OF ELEVATED RELEASES 1990.020  
 TOTAL HOURS OF STABILITY CLASS B 43.410  
 TOTAL HOURS OF ELEVATED STABILITY CLASS B 31.360

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.599	0.076	0.000	0.000	0.675
NNE	0.000	0.000	0.000	0.000	0.044	0.518	0.410	0.000	0.000	0.972
NE	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
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	0.042	0.000	0.000	0.000	0.042
SE	0.000	0.000	0.000	0.046	0.220	0.325	0.000	0.000	0.000	0.591
SSE	0.000	0.000	0.000	0.000	0.000	0.041	0.038	0.000	0.000	0.079
S	0.000	0.000	0.000	0.092	0.131	0.125	0.000	0.000	0.000	0.348
SSW	0.000	0.000	0.000	0.137	0.000	0.082	0.038	0.000	0.000	0.258
SW	0.000	0.000	0.000	0.046	0.131	0.042	0.000	0.000	0.000	0.219
WSW	0.000	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.000	0.044
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	0.074	0.069	0.000	0.142
NW	0.000	0.000	0.000	0.000	0.000	0.079	0.111	0.072	0.010	0.273
NNW	0.000	0.000	0.000	0.000	0.000	0.242	0.038	0.023	0.000	0.303
SUBTOTAL	0.000	0.000	0.000	0.321	0.570	2.096	0.786	0.164	0.010	3.946

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
TOTAL HOURS OF ELEVATED RELEASES 1990.020  
TOTAL HOURS OF STABILITY CLASS C 100.100  
TOTAL HOURS OF ELEVATED STABILITY CLASS C 86.140

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.183	0.183	0.395	0.481	0.297	0.050	0.000	1.590
NNE	0.000	0.000	0.046	0.183	0.663	0.838	0.189	0.000	0.000	1.919
NE	0.000	0.000	0.092	0.137	0.175	0.370	0.000	0.000	0.000	0.773
ENE	0.000	0.000	0.137	0.137	0.177	0.081	0.000	0.000	0.000	0.532
E	0.000	0.000	0.183	0.183	0.044	0.082	0.000	0.000	0.000	0.493
ESE	0.000	0.000	0.092	0.412	0.396	0.765	0.150	0.036	0.000	1.851
SE	0.000	0.000	0.229	0.870	0.798	1.157	0.747	0.130	0.000	3.932
SSE	0.000	0.000	0.504	0.916	0.304	0.737	0.707	0.036	0.008	3.212
S	0.000	0.046	0.641	1.237	0.568	1.165	0.965	0.030	0.000	4.652
SSW	0.000	0.000	0.412	0.825	0.485	0.921	0.524	0.066	0.000	3.233
SW	0.000	0.046	0.641	1.420	0.397	0.656	0.076	0.000	0.000	3.237
WSW	0.000	0.000	0.229	0.916	0.624	1.268	0.075	0.055	0.000	3.167
W	0.000	0.000	0.137	0.962	0.895	1.126	0.597	0.052	0.000	3.769
WNW	0.000	0.000	0.046	0.504	0.574	1.200	1.038	0.312	0.000	3.675
NW	0.000	0.000	0.046	0.504	0.482	1.049	1.308	0.162	0.000	3.552
NNW	0.000	0.000	0.092	0.229	0.306	0.726	0.336	0.114	0.000	1.802
SUBTOTAL	0.000	0.092	3.710	9.620	7.285	12.620	7.009	1.044	0.008	41.388

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
TOTAL HOURS OF ELEVATED RELEASES 1990.020  
TOTAL HOURS OF STABILITY CLASS D 971.540  
TOTAL HOURS OF ELEVATED STABILITY CLASS D 903.500

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.183	0.412	0.310	0.771	0.150	0.000	0.000	1.827
NNE	0.000	0.000	0.092	0.137	0.265	1.122	0.150	0.000	0.000	1.767
NE	0.000	0.000	0.046	0.412	0.174	0.327	0.000	0.000	0.000	0.959
ENE	0.000	0.000	0.092	0.183	0.265	0.329	0.000	0.000	0.000	0.869
E	0.000	0.000	0.229	0.137	0.307	0.370	0.000	0.000	0.000	1.044
ESE	0.000	0.000	0.183	0.229	0.882	1.537	0.449	0.000	0.000	3.280
SE	0.000	0.000	0.229	0.550	1.271	2.097	0.861	0.118	0.000	5.125
SSE	0.000	0.000	0.229	0.504	0.617	1.205	0.414	0.169	0.000	3.138
S	0.000	0.000	0.275	0.733	0.311	0.917	0.520	0.053	0.000	2.808
SSW	0.000	0.000	0.275	0.275	0.351	0.933	0.189	0.000	0.000	2.023
SW	0.000	0.000	0.183	0.550	0.399	0.361	0.000	0.000	0.000	1.492
WSW	0.000	0.000	0.137	0.458	0.536	0.162	0.038	0.030	0.000	1.361
W	0.000	0.000	0.092	0.275	0.216	0.531	0.038	0.000	0.000	1.151
WNW	0.000	0.000	0.229	0.183	0.266	0.000	0.000	0.000	0.000	0.678
NW	0.000	0.000	0.046	0.092	0.307	0.563	0.038	0.000	0.000	1.044
NNW	0.000	0.000	0.046	0.183	0.267	0.719	0.373	0.020	0.000	1.607
SUBTOTAL	0.000	0.000	2.565	5.314	6.741	11.945	3.219	0.389	0.000	30.173

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
TOTAL HOURS OF ELEVATED RELEASES 1990.020  
TOTAL HOURS OF STABILITY CLASS E 717.580  
TOTAL HOURS OF ELEVATED STABILITY CLASS E 658.680

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.003	0.000	0.092	0.046	0.044	0.594	0.000	0.000	0.000	0.778
NNE	0.003	0.000	0.092	0.092	0.046	0.680	0.000	0.000	0.000	0.912
NE	0.000	0.000	0.000	0.092	0.131	0.326	0.000	0.000	0.000	0.549
ENE	0.002	0.000	0.046	0.183	0.399	0.368	0.000	0.000	0.000	0.998
E	0.003	0.000	0.092	0.092	0.392	0.080	0.000	0.000	0.000	0.658
ESE	0.005	0.000	0.137	0.229	0.310	0.043	0.000	0.000	0.000	0.724
SE	0.006	0.000	0.183	0.412	0.531	0.201	0.038	0.000	0.000	1.372
SSE	0.002	0.000	0.046	0.321	0.263	0.117	0.373	0.000	0.000	1.122
S	0.005	0.000	0.137	0.137	0.132	0.442	0.000	0.000	0.000	0.853
SSW	0.002	0.000	0.046	0.092	0.087	0.204	0.000	0.000	0.000	0.430
SW	0.002	0.000	0.046	0.046	0.090	0.000	0.038	0.000	0.000	0.221
WSW	0.002	0.000	0.046	0.000	0.000	0.084	0.000	0.000	0.000	0.131
W	0.005	0.046	0.092	0.092	0.045	0.000	0.000	0.000	0.000	0.279
WNW	0.002	0.000	0.046	0.183	0.088	0.082	0.038	0.000	0.000	0.438
NW	0.002	0.000	0.046	0.092	0.349	0.042	0.000	0.000	0.000	0.530
NNW	0.006	0.000	0.183	0.000	0.000	0.443	0.038	0.000	0.000	0.670
SUBTOTAL	0.046	0.046	1.328	2.107	2.907	3.706	0.525	0.000	0.000	10.666

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
TOTAL HOURS OF ELEVATED RELEASES 1990.020  
TOTAL HOURS OF STABILITY CLASS F 253.260  
TOTAL HOURS OF ELEVATED STABILITY CLASS F 232.830

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2020 - JUN 30, 2020

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	0.137	0.000	0.000	0.000	0.000	0.000	0.000	0.137
NNE	0.000	0.000	0.000	0.137	0.133	0.158	0.152	0.000	0.000	0.581
NE	0.000	0.000	0.092	0.092	0.175	0.123	0.000	0.000	0.000	0.481
ENE	0.000	0.000	0.046	0.092	0.133	0.125	0.000	0.000	0.000	0.395
E	0.000	0.046	0.046	0.092	0.000	0.000	0.000	0.000	0.000	0.183
ESE	0.000	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.000	0.044
SE	0.000	0.000	0.046	0.000	0.000	0.124	0.000	0.000	0.000	0.169
SSE	0.000	0.000	0.000	0.046	0.133	0.000	0.000	0.000	0.000	0.179
S	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.092
SSW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.137	0.000	0.000	0.000	0.000	0.000	0.000	0.137
WSW	0.000	0.046	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.137
W	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.092
WNW	0.000	0.046	0.046	0.000	0.043	0.000	0.000	0.000	0.000	0.135
NW	0.000	0.000	0.046	0.183	0.132	0.000	0.000	0.000	0.000	0.361
NNW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SUBTOTAL	0.000	0.183	0.779	0.779	0.793	0.530	0.152	0.000	0.000	3.216

TOTAL HOURS OF VALID OBSERVATIONS 2183.000  
 TOTAL HOURS OF ELEVATED RELEASES 1990.020  
 TOTAL HOURS OF STABILITY CLASS G 78.920  
 TOTAL HOURS OF ELEVATED STABILITY CLASS G 70.200

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/08/10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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*Table 7C 3<sup>rd</sup> Quarter JFD - Split Level Releases*

Joint Frequency Distribution In Percent

(Ground Level Release Mode And Elevated Release Mode)



Browns Ferry Nuclear Plant  
 Units 1, 2 and 3  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.005	0.021	0.000	0.000	0.000	0.026
NNE	0.000	0.000	0.000	0.000	0.005	0.021	0.000	0.000	0.000	0.026
NE	0.000	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.013
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.005	0.009	0.000	0.000	0.000	0.000	0.000	0.014
ESE	0.000	0.000	0.037	0.059	0.009	0.000	0.000	0.000	0.000	0.105
SE	0.000	0.000	0.066	0.089	0.000	0.000	0.000	0.000	0.000	0.154
SSE	0.000	0.000	0.037	0.032	0.000	0.000	0.000	0.000	0.000	0.069
S	0.000	0.000	0.010	0.067	0.000	0.000	0.000	0.000	0.000	0.077
SSW	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.007
SW	0.000	0.000	0.016	0.007	0.000	0.000	0.000	0.000	0.000	0.023
WSW	0.000	0.000	0.010	0.006	0.015	0.000	0.000	0.000	0.000	0.030
W	0.000	0.000	0.000	0.011	0.051	0.055	0.000	0.000	0.000	0.116
WNW	0.000	0.000	0.000	0.000	0.017	0.072	0.000	0.000	0.000	0.089
NW	0.000	0.000	0.000	0.000	0.005	0.021	0.028	0.000	0.000	0.053
NNW	0.000	0.000	0.000	0.000	0.003	0.081	0.000	0.000	0.000	0.084
SUBTOTAL	0.000	0.000	0.187	0.279	0.109	0.284	0.028	0.000	0.000	0.887

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 124.170  
 TOTAL HOURS OF STABILITY CLASS A 57.220  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A 19.430

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
 Units 1, 2 and 3  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.003	0.000	0.000	0.000	0.000	0.003
NNE	0.000	0.000	0.000	0.000	0.005	0.015	0.000	0.000	0.000	0.020
NE	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.006
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.003	0.008	0.000	0.000	0.000	0.000	0.000	0.011
ESE	0.000	0.000	0.000	0.016	0.000	0.000	0.000	0.000	0.000	0.016
SE	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.005
SSE	0.000	0.000	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.008
S	0.000	0.000	0.004	0.020	0.000	0.000	0.000	0.000	0.000	0.023
SSW	0.000	0.000	0.000	0.023	0.000	0.000	0.000	0.000	0.000	0.023
SW	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.007
WSW	0.000	0.000	0.000	0.003	0.013	0.000	0.000	0.000	0.000	0.016
W	0.000	0.000	0.000	0.001	0.034	0.013	0.000	0.000	0.000	0.048
WNW	0.000	0.000	0.000	0.001	0.020	0.005	0.000	0.000	0.000	0.026
NW	0.000	0.000	0.000	0.000	0.002	0.015	0.000	0.000	0.000	0.018
NNW	0.000	0.000	0.000	0.000	0.006	0.048	0.000	0.000	0.000	0.054
SUBTOTAL	0.000	0.000	0.013	0.086	0.082	0.103	0.000	0.000	0.000	0.284

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 124.170  
 TOTAL HOURS OF STABILITY CLASS B 67.990  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B 6.220

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.008	0.000	0.000	0.000	0.008
NNE	0.000	0.000	0.000	0.000	0.015	0.061	0.000	0.000	0.000	0.076
NE	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.007
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.009
ESE	0.000	0.000	0.010	0.010	0.008	0.000	0.000	0.000	0.000	0.027
SE	0.000	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.021
SSE	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.005
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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.023	0.000	0.000	0.000	0.000	0.000	0.023
WSW	0.000	0.000	0.005	0.013	0.006	0.000	0.000	0.000	0.000	0.025
W	0.000	0.000	0.000	0.005	0.028	0.019	0.000	0.000	0.000	0.052
WNW	0.000	0.000	0.000	0.006	0.003	0.025	0.009	0.000	0.000	0.043
NW	0.000	0.000	0.000	0.000	0.003	0.022	0.009	0.000	0.000	0.035
NNW	0.000	0.000	0.000	0.000	0.006	0.016	0.000	0.000	0.000	0.021
SUBTOTAL	0.000	0.000	0.040	0.056	0.085	0.152	0.018	0.000	0.000	0.351

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 124.170  
 TOTAL HOURS OF STABILITY CLASS C 125.690  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C 7.690

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.003	0.026	0.037	0.024	0.000	0.000	0.000	0.090
NNE	0.000	0.000	0.001	0.010	0.032	0.045	0.000	0.000	0.000	0.088
NE	0.000	0.000	0.000	0.005	0.053	0.023	0.010	0.000	0.000	0.091
ENE	0.000	0.000	0.005	0.002	0.024	0.005	0.000	0.000	0.000	0.037
E	0.000	0.000	0.000	0.055	0.066	0.015	0.000	0.000	0.000	0.136
ESE	0.000	0.000	0.024	0.071	0.000	0.008	0.000	0.000	0.000	0.103
SE	0.000	0.000	0.014	0.012	0.000	0.000	0.000	0.000	0.000	0.026
SSE	0.000	0.000	0.034	0.038	0.000	0.000	0.000	0.000	0.000	0.072
S	0.000	0.000	0.099	0.084	0.000	0.000	0.000	0.000	0.000	0.183
SSW	0.000	0.000	0.066	0.054	0.000	0.000	0.000	0.000	0.000	0.121
SW	0.000	0.000	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.017
WSW	0.000	0.000	0.013	0.026	0.000	0.008	0.000	0.000	0.000	0.047
W	0.000	0.000	0.011	0.035	0.053	0.008	0.000	0.000	0.000	0.107
WNW	0.000	0.000	0.000	0.004	0.010	0.063	0.000	0.000	0.000	0.076
NW	0.000	0.000	0.000	0.005	0.021	0.032	0.036	0.000	0.000	0.094
NNW	0.000	0.000	0.000	0.023	0.042	0.057	0.000	0.000	0.000	0.122
SUBTOTAL	0.000	0.000	0.279	0.457	0.338	0.289	0.045	0.000	0.000	1.409

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 124.170  
TOTAL HOURS OF STABILITY CLASS D 893.680  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D 30.850

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.100	0.116	0.021	0.008	0.000	0.000	0.000	0.245
NNE	0.000	0.000	0.035	0.126	0.112	0.078	0.000	0.000	0.000	0.351
NE	0.000	0.000	0.014	0.038	0.079	0.047	0.000	0.000	0.000	0.179
ENE	0.000	0.003	0.043	0.069	0.011	0.000	0.000	0.000	0.000	0.126
E	0.000	0.002	0.109	0.357	0.082	0.000	0.000	0.000	0.000	0.550
ESE	0.000	0.005	0.047	0.041	0.000	0.000	0.000	0.000	0.000	0.093
SE	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.035
SSE	0.000	0.017	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.067
S	0.000	0.003	0.065	0.036	0.000	0.000	0.000	0.000	0.000	0.104
SSW	0.000	0.013	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.027
SW	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
WSW	0.000	0.000	0.004	0.020	0.000	0.000	0.000	0.000	0.000	0.024
W	0.000	0.000	0.006	0.033	0.000	0.006	0.000	0.000	0.000	0.045
WNW	0.000	0.000	0.000	0.005	0.017	0.000	0.000	0.000	0.000	0.022
NW	0.000	0.000	0.004	0.006	0.012	0.000	0.000	0.000	0.000	0.022
NNW	0.000	0.000	0.028	0.047	0.022	0.017	0.000	0.000	0.000	0.115
SUBTOTAL	0.000	0.043	0.558	0.894	0.358	0.156	0.000	0.000	0.000	2.010

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 124.170  
TOTAL HOURS OF STABILITY CLASS E 751.000  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 44.010

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.062	0.029	0.000	0.000	0.000	0.000	0.000	0.092
NNE	0.000	0.001	0.038	0.019	0.008	0.000	0.000	0.000	0.000	0.065
NE	0.000	0.000	0.022	0.008	0.014	0.000	0.000	0.000	0.000	0.044
ENE	0.000	0.001	0.040	0.043	0.000	0.000	0.000	0.000	0.000	0.084
E	0.000	0.000	0.044	0.085	0.000	0.000	0.000	0.000	0.000	0.129
ESE	0.000	0.013	0.008	0.009	0.000	0.000	0.000	0.000	0.000	0.030
SE	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
SSE	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.015
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	0.000	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
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	0.004	0.000	0.000	0.000	0.000	0.000	0.004
WNW	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.005
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	0.032	0.000	0.008	0.000	0.000	0.000	0.000	0.039
SUBTOTAL	0.000	0.022	0.259	0.197	0.034	0.000	0.000	0.000	0.000	0.513

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 124.170  
TOTAL HOURS OF STABILITY CLASS F 249.450  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F 11.230

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant**  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.002	0.093	0.027	0.000	0.000	0.000	0.000	0.000	0.122
NNE	0.000	0.003	0.021	0.011	0.000	0.000	0.000	0.000	0.000	0.035
NE	0.000	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.014
ENE	0.000	0.001	0.001	0.013	0.007	0.000	0.000	0.000	0.000	0.023
E	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.006
ESE	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.005
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	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
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	0.002	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.012
SUBTOTAL	0.000	0.009	0.150	0.050	0.007	0.000	0.000	0.000	0.000	0.216

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 124.170  
 TOTAL HOURS OF STABILITY CLASS G 44.970  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G 4.740

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant**  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.038	0.038	0.000	0.000	0.076
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	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	0.262	0.440	0.037	0.000	0.000	0.739
SSE	0.000	0.000	0.000	0.091	0.348	0.202	0.038	0.000	0.000	0.679
S	0.000	0.000	0.000	0.000	0.043	0.038	0.000	0.033	0.000	0.115
SSW	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	0.040	0.000	0.000	0.000	0.040
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	0.039	0.000	0.000	0.000	0.039
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	0.037	0.000	0.000	0.037
SUBTOTAL	0.000	0.000	0.000	0.091	0.653	0.798	0.151	0.033	0.000	1.726

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
 TOTAL HOURS OF ELEVATED RELEASES 2065.830  
 TOTAL HOURS OF STABILITY CLASS A 57.220  
 TOTAL HOURS OF ELEVATED STABILITY CLASS A 37.790

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.159	0.000	0.000	0.000	0.159
NNE	0.000	0.000	0.000	0.000	0.000	0.159	0.000	0.000	0.000	0.159
NE	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
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	0.091	0.178	0.242	0.074	0.000	0.000	0.586
SSE	0.000	0.000	0.091	0.228	0.128	0.084	0.037	0.000	0.000	0.568
S	0.000	0.000	0.000	0.046	0.132	0.000	0.074	0.000	0.000	0.251
SSW	0.000	0.000	0.000	0.046	0.044	0.000	0.000	0.000	0.000	0.089
SW	0.000	0.000	0.000	0.000	0.132	0.081	0.000	0.000	0.000	0.213
WSW	0.000	0.000	0.000	0.000	0.000	0.201	0.000	0.000	0.000	0.201
W	0.000	0.000	0.000	0.000	0.000	0.285	0.038	0.000	0.000	0.323
WNW	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.077
NW	0.000	0.000	0.000	0.000	0.000	0.040	0.000	0.000	0.000	0.040
NNW	0.000	0.000	0.000	0.000	0.000	0.117	0.037	0.000	0.000	0.154
SUBTOTAL	0.000	0.000	0.091	0.411	0.613	1.445	0.260	0.000	0.000	2.821

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
TOTAL HOURS OF ELEVATED RELEASES 2065.830  
TOTAL HOURS OF STABILITY CLASS B 67.990  
TOTAL HOURS OF ELEVATED STABILITY CLASS B 61.770

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.122	0.037	0.000	0.000	0.159
NNE	0.000	0.000	0.000	0.000	0.000	0.120	0.037	0.000	0.000	0.157
NE	0.000	0.000	0.000	0.000	0.000	0.079	0.000	0.000	0.000	0.079
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.040	0.038	0.000	0.000	0.078
SE	0.000	0.000	0.000	0.183	0.347	0.286	0.074	0.000	0.000	0.890
SSE	0.000	0.000	0.000	0.365	0.483	0.042	0.037	0.000	0.000	0.927
S	0.000	0.000	0.046	0.320	0.045	0.083	0.000	0.000	0.000	0.493
SSW	0.000	0.000	0.046	0.137	0.175	0.077	0.000	0.000	0.000	0.435
SW	0.000	0.000	0.000	0.137	0.042	0.042	0.000	0.000	0.000	0.221
WSW	0.000	0.000	0.000	0.091	0.043	0.081	0.000	0.000	0.000	0.216
W	0.000	0.000	0.000	0.183	0.268	0.410	0.000	0.000	0.000	0.861
WNW	0.000	0.000	0.000	0.000	0.045	0.323	0.000	0.000	0.000	0.368
NW	0.000	0.000	0.000	0.000	0.043	0.000	0.037	0.028	0.000	0.109
NNW	0.000	0.000	0.000	0.000	0.085	0.237	0.075	0.000	0.000	0.396
SUBTOTAL	0.000	0.000	0.091	1.416	1.576	1.942	0.335	0.028	0.000	5.388

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
TOTAL HOURS OF ELEVATED RELEASES 2065.830  
TOTAL HOURS OF STABILITY CLASS C 125.690  
TOTAL HOURS OF ELEVATED STABILITY CLASS C 118.000

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.274	0.183	0.354	0.446	0.335	0.030	0.000	1.622
NNE	0.000	0.000	0.137	0.320	0.304	0.519	0.301	0.000	0.000	1.581
NE	0.000	0.000	0.137	0.274	0.346	0.368	0.036	0.000	0.000	1.161
ENE	0.000	0.000	0.091	0.137	0.263	0.207	0.000	0.000	0.000	0.699
E	0.000	0.046	0.183	0.320	0.224	0.248	0.000	0.000	0.000	1.020
ESE	0.000	0.000	0.228	0.457	0.488	0.809	0.038	0.000	0.000	2.020
SE	0.000	0.046	0.868	1.233	0.440	0.648	0.189	0.000	0.000	3.423
SSE	0.000	0.000	1.187	1.279	0.661	0.447	0.221	0.000	0.000	3.795
S	0.000	0.000	1.279	1.142	1.140	0.805	0.557	0.215	0.000	5.138
SSW	0.000	0.000	1.142	1.050	0.402	1.038	0.185	0.000	0.000	3.817
SW	0.000	0.000	1.142	1.233	0.437	0.375	0.000	0.000	0.000	3.186
WSW	0.000	0.000	0.731	2.100	0.489	0.518	0.000	0.000	0.000	3.837
W	0.000	0.000	0.183	1.689	0.922	0.608	0.075	0.000	0.000	3.478
WNW	0.000	0.000	0.183	0.274	0.351	0.915	0.150	0.000	0.000	1.872
NW	0.000	0.000	0.091	0.320	0.221	0.317	0.261	0.018	0.000	1.228
NNW	0.000	0.000	0.137	0.320	0.394	0.557	0.113	0.000	0.000	1.521
SUBTOTAL	0.000	0.091	7.991	12.329	7.436	8.828	2.461	0.263	0.000	39.399

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
TOTAL HOURS OF ELEVATED RELEASES 2065.830  
TOTAL HOURS OF STABILITY CLASS D 893.680  
TOTAL HOURS OF ELEVATED STABILITY CLASS D 862.830

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.183	0.411	0.836	1.486	0.188	0.000	0.000	3.104
NNE	0.000	0.000	0.228	0.502	0.480	1.575	0.416	0.000	0.000	3.202
NE	0.000	0.000	0.274	0.320	0.442	1.010	0.037	0.035	0.000	2.117
ENE	0.000	0.000	0.274	0.365	0.433	0.279	0.000	0.000	0.000	1.352
E	0.000	0.000	0.183	0.457	0.832	1.301	0.038	0.000	0.000	2.811
ESE	0.000	0.000	0.274	0.776	1.193	2.120	0.037	0.000	0.000	4.400
SE	0.000	0.000	0.274	0.685	0.394	0.777	0.113	0.000	0.000	2.243
SSE	0.000	0.046	0.365	0.959	0.837	0.162	0.074	0.000	0.000	2.443
S	0.000	0.000	0.137	1.050	0.568	0.682	0.150	0.000	0.000	2.587
SSW	0.000	0.000	0.411	0.731	0.267	0.203	0.113	0.000	0.000	1.725
SW	0.000	0.000	0.320	0.502	0.087	0.164	0.000	0.000	0.000	1.074
WSW	0.000	0.000	0.365	0.411	0.218	0.205	0.037	0.000	0.000	1.237
W	0.000	0.046	0.046	0.639	0.356	0.083	0.000	0.000	0.000	1.169
WNW	0.000	0.000	0.183	0.228	0.000	0.245	0.000	0.000	0.000	0.656
NW	0.000	0.000	0.274	0.228	0.222	0.083	0.000	0.000	0.000	0.807
NNW	0.000	0.000	0.137	0.183	0.399	0.564	0.037	0.036	0.000	1.356
SUBTOTAL	0.000	0.091	3.927	8.447	7.564	10.940	1.242	0.071	0.000	32.283

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
TOTAL HOURS OF ELEVATED RELEASES 2065.830  
TOTAL HOURS OF STABILITY CLASS E 751.000  
TOTAL HOURS OF ELEVATED STABILITY CLASS E 706.990

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.091	0.137	0.443	0.408	0.038	0.000	0.000	1.118
NNE	0.000	0.000	0.137	0.228	0.438	0.448	0.038	0.000	0.000	1.289
NE	0.000	0.000	0.228	0.365	0.442	0.405	0.000	0.000	0.000	1.441
ENE	0.000	0.046	0.137	0.502	0.349	0.320	0.000	0.000	0.000	1.354
E	0.000	0.046	0.228	0.228	0.221	0.206	0.000	0.000	0.000	0.930
ESE	0.000	0.046	0.091	0.137	0.179	0.777	0.000	0.000	0.000	1.229
SE	0.000	0.000	0.274	0.183	0.316	0.162	0.000	0.000	0.000	0.934
SSE	0.000	0.000	0.183	0.183	0.089	0.000	0.000	0.000	0.000	0.455
S	0.000	0.000	0.137	0.228	0.044	0.042	0.000	0.000	0.000	0.452
SSW	0.000	0.000	0.183	0.137	0.000	0.080	0.000	0.000	0.000	0.400
SW	0.000	0.000	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.091
WSW	0.000	0.000	0.091	0.046	0.045	0.000	0.000	0.000	0.000	0.182
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	0.091	0.000	0.041	0.000	0.000	0.000	0.132
NW	0.000	0.000	0.046	0.137	0.000	0.000	0.000	0.000	0.000	0.183
NNW	0.000	0.000	0.046	0.091	0.352	0.161	0.038	0.000	0.000	0.688
SUBTOTAL	0.000	0.137	1.963	2.694	2.920	3.050	0.114	0.000	0.000	10.878

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
 TOTAL HOURS OF ELEVATED RELEASES 2065.830  
 TOTAL HOURS OF STABILITY CLASS F 249.450  
 TOTAL HOURS OF ELEVATED STABILITY CLASS F 238.220

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2020 - SEP 30, 2020

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	0.046	0.000	0.200	0.000	0.000	0.000	0.246
NNE	0.000	0.000	0.000	0.137	0.044	0.317	0.000	0.000	0.000	0.498
NE	0.000	0.000	0.000	0.091	0.175	0.159	0.000	0.000	0.000	0.426
ENE	0.000	0.000	0.046	0.000	0.087	0.042	0.000	0.000	0.000	0.175
E	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.000	0.000	0.046	0.136	0.000	0.000	0.000	0.000	0.182
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	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.091
SSW	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	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
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	0.043	0.040	0.000	0.000	0.000	0.083
SUBTOTAL	0.000	0.000	0.137	0.457	0.485	0.758	0.000	0.000	0.000	1.837

TOTAL HOURS OF VALID OBSERVATIONS 2190.000  
 TOTAL HOURS OF ELEVATED RELEASES 2065.830  
 TOTAL HOURS OF STABILITY CLASS G 44.970  
 TOTAL HOURS OF ELEVATED STABILITY CLASS G 40.230

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2020/10/13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data

*Table 7D 4<sup>th</sup> Quarter JFD - Split Level Releases*

Joint Frequency Distribution In Percent

(Ground Level Release Mode And Elevated Release Mode)

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.007	0.007	0.000	0.000	0.000	0.014
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	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.014
SE	0.000	0.000	0.034	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.077
SSE	0.000	0.000	0.035	0.078	0.000	0.000	0.000	0.000	0.000	0.000	0.113
S	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
SSW	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002
SW	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
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	0.009	0.000	0.000	0.000	0.000	0.009
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	0.020	0.000	0.000	0.000	0.020
NNW	0.000	0.000	0.000	0.000	0.000	0.015	0.009	0.000	0.000	0.000	0.024
SUBTOTAL	0.000	0.000	0.070	0.142	0.007	0.030	0.029	0.000	0.000	0.000	0.278

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 215.160  
TOTAL HOURS OF STABILITY CLASS A 14.820  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A 6.120

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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Meteorological Data

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.017	0.028	0.000	0.000	0.000	0.045
NNE	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.020
NE	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
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	0.037	0.009	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.000	0.010	0.017	0.000	0.000	0.000	0.000	0.000	0.027
SSE	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.009
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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.003
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	0.009	0.009	0.000	0.000	0.018
WNW	0.000	0.000	0.000	0.000	0.000	0.017	0.000	0.000	0.000	0.017
NW	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.005
NNW	0.000	0.000	0.000	0.000	0.019	0.042	0.080	0.000	0.000	0.141
SUBTOTAL	0.000	0.000	0.010	0.065	0.045	0.120	0.090	0.000	0.000	0.330

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 215.160  
TOTAL HOURS OF STABILITY CLASS B 21.230  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B 7.260

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.001	0.024	0.013	0.000	0.000	0.000	0.038
NNE	0.000	0.000	0.000	0.000	0.005	0.019	0.000	0.000	0.000	0.024
NE	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.003
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.018	0.009	0.000	0.000	0.000	0.000	0.026
SE	0.000	0.000	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.005
SSE	0.000	0.000	0.022	0.003	0.000	0.000	0.000	0.000	0.000	0.025
S	0.000	0.000	0.004	0.009	0.000	0.000	0.000	0.000	0.000	0.013
SSW	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
WSW	0.000	0.000	0.000	0.008	0.007	0.000	0.000	0.000	0.000	0.015
W	0.000	0.000	0.000	0.000	0.000	0.008	0.010	0.000	0.000	0.017
WNW	0.000	0.000	0.000	0.000	0.004	0.041	0.008	0.000	0.000	0.053
NW	0.000	0.000	0.000	0.000	0.005	0.043	0.037	0.000	0.000	0.085
NNW	0.000	0.000	0.000	0.000	0.006	0.015	0.009	0.000	0.000	0.030
SUBTOTAL	0.000	0.000	0.027	0.042	0.064	0.139	0.064	0.000	0.000	0.335

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 215.160  
 TOTAL HOURS OF STABILITY CLASS C 52.010  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C 7.380

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.082	0.132	0.081	0.000	0.000	0.000	0.296
NNE	0.000	0.000	0.001	0.068	0.110	0.030	0.070	0.000	0.000	0.280
NE	0.000	0.000	0.000	0.008	0.028	0.032	0.000	0.000	0.000	0.068
ENE	0.000	0.000	0.000	0.004	0.021	0.018	0.000	0.000	0.000	0.043
E	0.000	0.000	0.001	0.020	0.036	0.043	0.000	0.000	0.000	0.100
ESE	0.000	0.000	0.031	0.172	0.032	0.045	0.000	0.000	0.000	0.281
SE	0.000	0.000	0.056	0.050	0.000	0.000	0.000	0.000	0.000	0.106
SSE	0.000	0.000	0.041	0.040	0.000	0.000	0.000	0.000	0.000	0.081
S	0.000	0.000	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.017
SSW	0.000	0.000	0.008	0.007	0.000	0.000	0.000	0.000	0.000	0.015
SW	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.004
WSW	0.000	0.000	0.004	0.041	0.014	0.016	0.000	0.000	0.000	0.075
W	0.000	0.000	0.002	0.043	0.080	0.141	0.009	0.000	0.000	0.275
WNW	0.000	0.000	0.001	0.007	0.034	0.092	0.345	0.036	0.000	0.515
NW	0.000	0.000	0.000	0.011	0.027	0.209	0.474	0.000	0.000	0.721
NNW	0.000	0.000	0.000	0.024	0.046	0.251	0.048	0.000	0.000	0.370
SUBTOTAL	0.000	0.000	0.165	0.580	0.561	0.959	0.946	0.036	0.000	3.247

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 215.160  
TOTAL HOURS OF STABILITY CLASS D 849.430  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D 71.430

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.039	0.061	0.074	0.009	0.000	0.000	0.000	0.182
NNE	0.000	0.000	0.028	0.061	0.022	0.015	0.000	0.000	0.000	0.126
NE	0.000	0.000	0.000	0.035	0.033	0.017	0.000	0.000	0.000	0.085
ENE	0.000	0.000	0.020	0.037	0.030	0.032	0.000	0.000	0.000	0.120
E	0.000	0.000	0.119	0.157	0.048	0.016	0.000	0.000	0.000	0.340
ESE	0.000	0.001	0.210	0.370	0.062	0.000	0.000	0.000	0.000	0.643
SE	0.000	0.017	0.150	0.070	0.000	0.000	0.000	0.000	0.000	0.237
SSE	0.000	0.003	0.144	0.413	0.226	0.045	0.000	0.000	0.000	0.832
S	0.000	0.000	0.029	0.098	0.118	0.000	0.000	0.000	0.000	0.245
SSW	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
SW	0.000	0.000	0.005	0.011	0.000	0.000	0.000	0.000	0.000	0.016
WSW	0.000	0.003	0.011	0.004	0.000	0.008	0.000	0.000	0.000	0.025
W	0.000	0.001	0.022	0.078	0.029	0.016	0.000	0.000	0.000	0.145
WNW	0.000	0.000	0.007	0.012	0.028	0.024	0.009	0.000	0.000	0.081
NW	0.000	0.000	0.000	0.009	0.012	0.049	0.000	0.000	0.000	0.070
NNW	0.000	0.000	0.010	0.056	0.072	0.065	0.000	0.000	0.000	0.203
SUBTOTAL	0.000	0.025	0.796	1.471	0.753	0.297	0.009	0.000	0.000	3.352

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 215.160  
 TOTAL HOURS OF STABILITY CLASS E 728.640  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 73.750

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.125	0.025	0.000	0.000	0.000	0.000	0.000	0.152
NNE	0.000	0.000	0.031	0.032	0.008	0.000	0.000	0.000	0.000	0.071
NE	0.000	0.000	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.014
ENE	0.000	0.011	0.040	0.018	0.008	0.000	0.000	0.000	0.000	0.078
E	0.000	0.005	0.152	0.069	0.000	0.000	0.000	0.000	0.000	0.225
ESE	0.000	0.012	0.088	0.043	0.000	0.000	0.000	0.000	0.000	0.143
SE	0.000	0.011	0.145	0.007	0.000	0.000	0.000	0.000	0.000	0.163
SSE	0.000	0.005	0.141	0.147	0.192	0.000	0.000	0.000	0.000	0.485
S	0.000	0.002	0.006	0.000	0.049	0.000	0.000	0.000	0.000	0.056
SSW	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	0.002	0.008	0.000	0.000	0.000	0.000	0.000	0.010
WSW	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002
W	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
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	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.007
NNW	0.000	0.000	0.033	0.015	0.008	0.000	0.000	0.000	0.000	0.055
SUBTOTAL	0.000	0.048	0.777	0.370	0.270	0.000	0.000	0.000	0.000	1.465

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 215.160  
TOTAL HOURS OF STABILITY CLASS F 345.190  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F 32.240

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.005	0.124	0.062	0.000	0.000	0.000	0.000	0.000	0.192
NNE	0.000	0.005	0.051	0.043	0.000	0.000	0.000	0.000	0.000	0.100
NE	0.000	0.004	0.023	0.007	0.000	0.000	0.000	0.000	0.000	0.035
ENE	0.000	0.010	0.032	0.012	0.008	0.000	0.000	0.000	0.000	0.062
E	0.000	0.003	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.048
ESE	0.001	0.011	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.064
SE	0.001	0.019	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.064
SSE	0.001	0.000	0.086	0.098	0.000	0.000	0.000	0.000	0.000	0.184
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	0.000	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
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	0.001	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.024
SUBTOTAL	0.005	0.059	0.465	0.235	0.008	0.000	0.000	0.000	0.000	0.772

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 215.160  
TOTAL HOURS OF STABILITY CLASS G 188.680  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G 16.980

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	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	0.116	0.000	0.000	0.000	0.116
SSE	0.000	0.000	0.000	0.000	0.000	0.044	0.080	0.112	0.000	0.236
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	0.000	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	0.043	0.000	0.000	0.000	0.043
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.087	0.197	0.112	0.000	0.000	0.395

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
 TOTAL HOURS OF ELEVATED RELEASES 1984.840  
 TOTAL HOURS OF STABILITY CLASS A 14.820  
 TOTAL HOURS OF ELEVATED STABILITY CLASS A 8.700

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	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	0.044	0.040	0.037	0.000	0.000	0.121
SSE	0.000	0.000	0.000	0.000	0.180	0.041	0.075	0.000	0.000	0.296
S	0.000	0.000	0.000	0.091	0.044	0.000	0.038	0.000	0.000	0.173
SSW	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.045
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.091	0.314	0.081	0.150	0.000	0.000	0.635

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
 TOTAL HOURS OF ELEVATED RELEASES 1984.840  
 TOTAL HOURS OF STABILITY CLASS B 21.230  
 TOTAL HOURS OF ELEVATED STABILITY CLASS B 13.970

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.275	0.000	0.000	0.000	0.275
NNE	0.000	0.000	0.000	0.000	0.000	0.156	0.000	0.000	0.000	0.156
NE	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
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	0.121	0.000	0.000	0.000	0.121
SE	0.000	0.000	0.045	0.091	0.129	0.245	0.074	0.000	0.000	0.585
SSE	0.000	0.000	0.000	0.091	0.000	0.040	0.073	0.000	0.000	0.204
S	0.000	0.000	0.000	0.091	0.000	0.039	0.074	0.000	0.000	0.204
SSW	0.000	0.000	0.000	0.091	0.000	0.000	0.000	0.000	0.000	0.091
SW	0.000	0.000	0.000	0.000	0.087	0.041	0.000	0.000	0.000	0.129
WSW	0.000	0.000	0.000	0.000	0.042	0.000	0.000	0.000	0.000	0.042
W	0.000	0.000	0.000	0.000	0.000	0.000	0.110	0.000	0.000	0.110
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	0.039	0.074	0.000	0.000	0.113
SUBTOTAL	0.000	0.000	0.045	0.364	0.259	0.956	0.405	0.000	0.000	2.029

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
 TOTAL HOURS OF ELEVATED RELEASES 1984.840  
 TOTAL HOURS OF STABILITY CLASS C 52.010  
 TOTAL HOURS OF ELEVATED STABILITY CLASS C 44.630

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.091	0.364	0.303	2.508	0.481	0.000	0.000	3.747
NNE	0.000	0.000	0.091	0.227	0.736	1.527	0.148	0.067	0.000	2.795
NE	0.000	0.045	0.000	0.273	0.264	0.321	0.036	0.000	0.000	0.939
ENE	0.000	0.000	0.227	0.091	0.312	0.084	0.000	0.000	0.000	0.715
E	0.000	0.000	0.045	0.318	0.089	0.122	0.146	0.000	0.000	0.720
ESE	0.000	0.000	0.136	0.636	0.520	0.845	0.000	0.000	0.000	2.137
SE	0.000	0.000	0.727	1.136	0.529	0.918	0.445	0.115	0.000	3.872
SSE	0.000	0.000	0.455	0.682	0.305	0.398	0.408	0.077	0.000	2.325
S	0.000	0.000	0.409	0.364	0.130	0.200	0.110	0.040	0.008	1.260
SSW	0.000	0.000	0.227	0.182	0.220	0.080	0.000	0.000	0.000	0.709
SW	0.000	0.045	0.500	0.409	0.130	0.040	0.000	0.000	0.000	1.125
WSW	0.000	0.000	0.182	0.773	0.173	0.525	0.297	0.042	0.000	1.991
W	0.000	0.000	0.136	0.591	0.792	1.161	0.405	0.000	0.000	3.086
WNW	0.000	0.000	0.227	0.409	0.437	0.722	1.104	0.292	0.010	3.201
NW	0.000	0.045	0.182	0.500	0.665	0.746	1.035	0.671	0.000	3.845
NNW	0.000	0.000	0.091	0.273	0.260	0.905	1.186	0.180	0.000	2.895
SUBTOTAL	0.000	0.136	3.727	7.227	5.866	11.101	5.804	1.485	0.017	35.364

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
TOTAL HOURS OF ELEVATED RELEASES 1984.840  
TOTAL HOURS OF STABILITY CLASS D 849.430  
TOTAL HOURS OF ELEVATED STABILITY CLASS D 778.000

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.045	0.136	0.182	0.437	1.164	0.187	0.000	0.000	2.152
NNE	0.000	0.000	0.091	0.136	0.609	0.568	0.038	0.000	0.000	1.442
NE	0.000	0.000	0.091	0.318	0.437	0.399	0.037	0.000	0.000	1.283
ENE	0.000	0.000	0.136	0.227	0.220	0.197	0.000	0.000	0.000	0.781
E	0.000	0.000	0.136	0.318	0.705	0.361	0.260	0.000	0.000	1.780
ESE	0.000	0.000	0.091	0.455	0.827	3.004	0.075	0.000	0.000	4.452
SE	0.000	0.000	0.273	0.500	0.394	2.903	1.261	0.125	0.000	5.456
SSE	0.000	0.000	0.136	0.545	0.530	0.792	1.105	0.539	0.034	3.681
S	0.000	0.000	0.091	0.318	0.261	0.243	0.476	0.324	0.000	1.714
SSW	0.000	0.000	0.045	0.318	0.309	0.438	0.111	0.030	0.000	1.251
SW	0.000	0.045	0.091	0.182	0.305	0.040	0.000	0.000	0.000	0.664
WSW	0.000	0.000	0.136	0.318	0.310	0.040	0.000	0.000	0.000	0.805
W	0.000	0.000	0.091	0.273	0.435	0.325	0.038	0.000	0.000	1.162
WNW	0.000	0.000	0.045	0.273	0.134	0.527	0.038	0.000	0.000	1.017
NW	0.000	0.000	0.045	0.091	0.401	0.357	0.148	0.000	0.000	1.042
NNW	0.000	0.045	0.000	0.091	0.130	0.595	0.224	0.000	0.000	1.085
SUBTOTAL	0.000	0.136	1.636	4.545	6.445	11.955	3.999	1.018	0.034	29.768

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
TOTAL HOURS OF ELEVATED RELEASES 1984.840  
TOTAL HOURS OF STABILITY CLASS E 728.640  
TOTAL HOURS OF ELEVATED STABILITY CLASS E 654.890

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.136	0.132	0.793	0.150	0.000	0.000	1.211
NNE	0.000	0.000	0.045	0.136	0.133	0.278	0.038	0.000	0.000	0.630
NE	0.000	0.000	0.091	0.136	0.177	0.161	0.000	0.000	0.000	0.565
ENE	0.000	0.000	0.091	0.136	0.263	0.233	0.038	0.000	0.000	0.761
E	0.000	0.000	0.091	0.182	0.394	0.411	0.000	0.000	0.000	1.078
ESE	0.000	0.000	0.045	0.273	0.699	0.855	0.000	0.000	0.000	1.872
SE	0.000	0.091	0.136	0.682	0.430	0.762	0.075	0.000	0.000	2.177
SSE	0.000	0.000	0.045	0.455	0.215	0.691	0.556	0.069	0.000	2.032
S	0.000	0.000	0.045	0.182	0.043	0.357	0.184	0.060	0.000	0.870
SSW	0.000	0.091	0.045	0.045	0.088	0.080	0.000	0.000	0.000	0.350
SW	0.000	0.000	0.136	0.045	0.043	0.000	0.000	0.000	0.000	0.225
WSW	0.000	0.000	0.227	0.227	0.088	0.000	0.000	0.000	0.000	0.543
W	0.000	0.000	0.182	0.227	0.177	0.040	0.000	0.000	0.000	0.626
WNW	0.000	0.000	0.091	0.227	0.000	0.000	0.000	0.000	0.000	0.318
NW	0.000	0.000	0.136	0.000	0.043	0.241	0.000	0.000	0.000	0.421
NNW	0.000	0.000	0.045	0.091	0.128	0.281	0.000	0.000	0.000	0.546
SUBTOTAL	0.000	0.182	1.455	3.182	3.054	5.184	1.041	0.129	0.000	14.225

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
TOTAL HOURS OF ELEVATED RELEASES 1984.840  
TOTAL HOURS OF STABILITY CLASS F 345.190  
TOTAL HOURS OF ELEVATED STABILITY CLASS F 312.950

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2020 - DEC 31, 2020

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	0.045	0.091	0.091	0.000	0.278	0.000	0.000	0.000	0.505
NNE	0.000	0.000	0.136	0.227	0.042	0.240	0.000	0.000	0.000	0.645
NE	0.000	0.000	0.045	0.364	0.000	0.242	0.000	0.000	0.000	0.651
ENE	0.000	0.000	0.045	0.091	0.263	0.358	0.038	0.000	0.000	0.795
E	0.000	0.000	0.000	0.000	0.305	0.206	0.000	0.000	0.000	0.511
ESE	0.000	0.000	0.091	0.182	0.308	0.042	0.000	0.000	0.000	0.622
SE	0.000	0.000	0.045	0.455	0.177	0.123	0.000	0.000	0.000	0.800
SSE	0.000	0.000	0.273	0.409	0.305	0.165	0.038	0.000	0.000	1.190
S	0.000	0.000	0.045	0.045	0.042	0.078	0.000	0.000	0.000	0.211
SSW	0.000	0.000	0.136	0.227	0.045	0.000	0.000	0.000	0.000	0.409
SW	0.000	0.000	0.318	0.091	0.000	0.000	0.000	0.000	0.000	0.409
WSW	0.000	0.045	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.182
W	0.000	0.045	0.091	0.045	0.000	0.000	0.000	0.000	0.000	0.182
WNW	0.000	0.000	0.136	0.045	0.000	0.000	0.000	0.000	0.000	0.182
NW	0.000	0.091	0.091	0.045	0.000	0.000	0.000	0.000	0.000	0.227
NNW	0.000	0.000	0.045	0.000	0.000	0.238	0.000	0.000	0.000	0.283
SUBTOTAL	0.000	0.227	1.727	2.318	1.487	1.969	0.075	0.000	0.000	7.805

TOTAL HOURS OF VALID OBSERVATIONS 2200.000  
TOTAL HOURS OF ELEVATED RELEASES 1984.840  
TOTAL HOURS OF STABILITY CLASS G 188.680  
TOTAL HOURS OF ELEVATED STABILITY CLASS G 171.700

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2021/01/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data

*Table 8A 1<sup>st</sup> Quarter JFD - Elevated Releases*

Joint Frequency Distribution In Percent

Browns Ferry Nuclear Plant  
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 2020 Annual Radioactive Effluent Release Report  
 Meteorological Data

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.092
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	0.046	0.000	0.000	0.000	0.046
S	0.000	0.000	0.000	0.000	0.000	0.046	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
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.138	0.046	0.000	0.000	0.184

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174  
 TOTAL HOURS OF STABILITY CLASS A 4  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A 4  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2174  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 11.98

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.046	0.046	0.000	0.000	0.092
NNE	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.046	0.000	0.092
NE	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
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	0.138	0.000	0.000	0.000	0.138
SE	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.092
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.092
S	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.092
SSW	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.092
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	0.046	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	0.000	0.000	0.046	0.000	0.046
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.552	0.138	0.138	0.000	0.828

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2174
TOTAL HOURS OF STABILITY CLASS B	18
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	18
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2174
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 12.28

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.414	0.138	0.046	0.000	0.598
NNE	0.000	0.000	0.000	0.000	0.000	0.184	0.046	0.000	0.000	0.230
NE	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
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	0.184	0.046	0.046	0.000	0.000	0.276
SE	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.092
SSE	0.000	0.000	0.000	0.046	0.046	0.000	0.046	0.000	0.000	0.138
S	0.000	0.000	0.000	0.046	0.000	0.046	0.000	0.046	0.000	0.138
SSW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.046
W	0.000	0.000	0.000	0.000	0.000	0.138	0.138	0.046	0.000	0.322
WNW	0.000	0.000	0.000	0.000	0.000	0.138	0.138	0.092	0.000	0.368
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.092	0.276	0.000	0.368
NNW	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.092
SUBTOTAL	0.000	0.000	0.000	0.138	0.276	1.150	0.690	0.506	0.000	2.760

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2174
TOTAL HOURS OF STABILITY CLASS C	60
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	60
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2174
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 12.81

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.092	0.276	0.138	1.334	2.484	0.598	0.000	4.922
NNE	0.000	0.000	0.092	0.184	0.138	1.196	2.208	0.184	0.000	4.002
NE	0.000	0.000	0.092	0.276	0.414	1.104	0.460	0.000	0.000	2.346
ENE	0.000	0.000	0.138	0.184	0.184	0.322	0.000	0.000	0.000	0.828
E	0.000	0.000	0.046	0.184	0.276	0.230	0.046	0.000	0.000	0.782
ESE	0.000	0.000	0.276	0.184	0.506	0.506	0.460	0.230	0.000	2.162
SE	0.000	0.000	0.184	0.184	0.276	0.460	0.828	0.368	0.138	2.438
SSE	0.000	0.000	0.230	0.230	0.230	0.322	0.414	0.368	0.138	1.932
S	0.000	0.000	0.138	0.184	0.184	0.414	0.138	0.092	0.000	1.150
SSW	0.000	0.000	0.092	0.184	0.138	0.230	0.138	0.092	0.000	0.874
SW	0.000	0.000	0.184	0.230	0.184	0.414	0.184	0.000	0.000	1.196
WSW	0.000	0.000	0.138	0.092	0.138	0.644	0.828	0.138	0.000	1.978
W	0.000	0.000	0.092	0.184	0.230	1.380	1.794	0.322	0.000	4.002
WNW	0.000	0.000	0.000	0.138	0.322	1.104	1.012	0.598	0.276	3.450
NW	0.000	0.000	0.184	0.000	0.092	0.828	1.150	1.472	0.092	3.818
NNW	0.000	0.000	0.046	0.000	0.046	0.552	0.920	0.230	0.000	1.794
SUBTOTAL	0.000	0.000	2.024	2.714	3.496	11.040	13.063	4.692	0.644	37.672

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174  
TOTAL HOURS OF STABILITY CLASS D 819  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 819  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2174  
TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 12.32

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.046	0.046	0.092	0.092	0.782	0.644	0.230	0.000	1.932
NNE	0.000	0.000	0.046	0.184	0.230	0.920	0.460	0.138	0.000	1.978
NE	0.000	0.000	0.046	0.092	0.138	0.828	0.598	0.000	0.000	1.702
ENE	0.000	0.046	0.046	0.092	0.092	0.828	0.230	0.046	0.000	1.380
E	0.000	0.000	0.092	0.138	0.184	0.230	0.092	0.000	0.000	0.736
ESE	0.000	0.000	0.184	0.046	0.230	0.736	0.368	0.230	0.000	1.794
SE	0.000	0.000	0.046	0.276	0.368	2.254	2.162	0.874	0.368	6.348
SSE	0.000	0.000	0.000	0.598	0.230	1.472	1.794	0.782	0.322	5.198
S	0.000	0.000	0.000	0.230	0.414	2.116	2.438	1.886	0.598	7.682
SSW	0.000	0.000	0.184	0.276	0.276	1.472	2.070	1.058	0.230	5.566
SW	0.000	0.000	0.092	0.138	0.506	1.104	0.690	0.046	0.000	2.576
WSW	0.000	0.000	0.092	0.138	0.276	1.380	0.598	0.046	0.046	2.576
W	0.000	0.046	0.000	0.184	0.184	1.334	0.552	0.184	0.046	2.530
WNW	0.000	0.000	0.046	0.092	0.276	0.460	0.552	0.184	0.000	1.610
NW	0.000	0.000	0.000	0.184	0.138	0.230	0.230	0.276	0.046	1.104
NNW	0.000	0.000	0.046	0.138	0.092	0.644	0.506	0.046	0.000	1.472
SUBTOTAL	0.000	0.138	0.966	2.898	3.726	16.789	13.983	6.026	1.656	46.182

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174  
TOTAL HOURS OF STABILITY CLASS E 1004  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 1004  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2174  
TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 12.85

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.092	0.138	0.000	0.000	0.000	0.230
NNE	0.000	0.000	0.000	0.046	0.046	0.046	0.138	0.000	0.000	0.276
NE	0.000	0.000	0.000	0.000	0.138	0.276	0.000	0.000	0.000	0.414
ENE	0.000	0.000	0.000	0.000	0.092	0.092	0.092	0.000	0.000	0.276
E	0.000	0.000	0.092	0.000	0.092	0.092	0.000	0.000	0.000	0.276
ESE	0.000	0.000	0.092	0.046	0.184	0.322	0.046	0.000	0.000	0.690
SE	0.000	0.000	0.000	0.138	0.046	0.184	0.828	0.828	0.368	2.392
SSE	0.000	0.000	0.000	0.000	0.046	0.322	1.334	0.368	0.138	2.208
S	0.000	0.000	0.000	0.000	0.046	0.506	1.104	0.598	0.046	2.300
SSW	0.000	0.000	0.000	0.000	0.046	0.736	0.276	0.092	0.000	1.150
SW	0.000	0.000	0.092	0.046	0.046	0.000	0.046	0.000	0.000	0.230
WSW	0.000	0.000	0.000	0.046	0.046	0.046	0.000	0.000	0.000	0.138
W	0.000	0.000	0.000	0.000	0.000	0.092	0.046	0.000	0.000	0.138
WNW	0.000	0.000	0.092	0.000	0.000	0.046	0.046	0.000	0.000	0.184
NW	0.000	0.000	0.046	0.138	0.000	0.092	0.046	0.000	0.000	0.322
NNW	0.000	0.000	0.000	0.000	0.000	0.138	0.092	0.000	0.000	0.230
SUBTOTAL	0.000	0.000	0.414	0.460	0.920	3.128	4.094	1.886	0.552	11.454

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2174  
TOTAL HOURS OF STABILITY CLASS F 249  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F 249  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2174  
TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 13.83

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2020 - MAR 31, 2020

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	0.000	0.000	0.000	0.000	0.000	0.000	0.046
NNE	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	0.046	0.000	0.000	0.138	0.000	0.000	0.000	0.184
ENE	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.092
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	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.000	0.000	0.000	0.000	0.138	0.000	0.000	0.000	0.138
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.092
S	0.000	0.000	0.000	0.000	0.000	0.000	0.138	0.092	0.000	0.230
SSW	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
WSW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.046
SUBTOTAL	0.000	0.092	0.138	0.046	0.000	0.276	0.184	0.184	0.000	0.920

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2174
TOTAL HOURS OF STABILITY CLASS G	20
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	20
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2174
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/05/05

MEAN WIND SPEED = 11.14

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data

*Table 8B 2<sup>nd</sup> Quarter JFD - Elevated Releases*

Joint Frequency Distribution In Percent

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.047	0.000	0.000	0.047
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	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	0.047	0.047	0.000	0.000	0.094
SSE	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
S	0.000	0.000	0.000	0.000	0.094	0.047	0.047	0.000	0.000	0.188
SSW	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
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.141	0.094	0.141	0.000	0.000	0.376

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS A	8
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	8
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2129
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 9.82

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.141	0.423	0.000	0.000	0.564
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.094	0.047	0.000	0.000	0.141
SE	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.000	0.094
SSE	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.000	0.094
S	0.000	0.000	0.000	0.047	0.141	0.094	0.000	0.000	0.000	0.282
SSW	0.000	0.000	0.000	0.000	0.094	0.000	0.000	0.000	0.000	0.094
SW	0.000	0.000	0.000	0.094	0.000	0.000	0.000	0.000	0.000	0.094
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	0.047	0.047	0.047	0.141
NNW	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047	0.000	0.094
SUBTOTAL	0.000	0.000	0.000	0.188	0.329	0.423	0.517	0.094	0.047	1.597

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS B	36
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	34
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2129
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 11.32

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.564	0.423	0.000	0.000	0.986
NNE	0.000	0.000	0.000	0.000	0.000	0.329	0.658	0.141	0.000	1.127
NE	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
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	0.094	0.094	0.000	0.000	0.000	0.188
SE	0.000	0.000	0.000	0.047	0.000	0.376	0.094	0.000	0.000	0.517
SSE	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.094
S	0.000	0.000	0.000	0.047	0.094	0.235	0.000	0.000	0.000	0.376
SSW	0.000	0.000	0.000	0.094	0.000	0.047	0.047	0.047	0.000	0.235
SW	0.000	0.000	0.000	0.047	0.047	0.188	0.000	0.000	0.000	0.282
WSW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
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	0.047	0.141	0.000	0.188
NW	0.000	0.000	0.000	0.000	0.000	0.094	0.047	0.188	0.094	0.423
NNW	0.000	0.000	0.000	0.000	0.000	0.141	0.047	0.047	0.000	0.235
SUBTOTAL	0.000	0.000	0.000	0.235	0.235	2.161	1.409	0.564	0.094	4.697

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2183  
 TOTAL HOURS OF STABILITY CLASS C 100  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C 100  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2129  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 12.89

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.094	0.188	0.235	0.517	0.376	0.329	0.047	1.785
NNE	0.000	0.000	0.000	0.047	0.423	0.939	0.705	0.000	0.000	2.114
NE	0.000	0.000	0.094	0.047	0.188	0.470	0.047	0.000	0.000	0.845
ENE	0.000	0.000	0.047	0.047	0.047	0.282	0.047	0.000	0.000	0.470
E	0.000	0.000	0.188	0.282	0.141	0.141	0.000	0.000	0.000	0.752
ESE	0.000	0.000	0.141	0.282	0.423	0.986	0.658	0.141	0.188	2.818
SE	0.000	0.000	0.329	0.798	0.000	0.798	0.939	0.423	0.094	3.382
SSE	0.000	0.000	0.141	0.470	0.564	0.798	0.658	0.798	0.141	3.570
S	0.000	0.000	0.517	0.658	0.470	1.268	0.939	0.611	0.000	4.462
SSW	0.000	0.000	0.376	0.564	0.376	0.845	1.080	0.470	0.141	3.852
SW	0.000	0.000	0.282	0.705	0.658	1.409	0.517	0.141	0.000	3.711
WSW	0.000	0.000	0.470	0.752	0.517	1.597	0.705	0.094	0.094	4.227
W	0.000	0.000	0.047	0.517	0.845	1.033	0.892	0.423	0.141	3.899
WNW	0.000	0.000	0.047	0.188	0.752	1.409	0.939	1.080	0.047	4.462
NW	0.000	0.000	0.047	0.376	0.282	0.986	1.221	0.470	0.000	3.382
NNW	0.000	0.000	0.188	0.141	0.282	0.752	0.423	0.188	0.094	2.067
SUBTOTAL	0.000	0.000	3.006	6.059	6.200	14.232	10.146	5.167	0.986	45.796

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS D	995
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	975
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2129
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 11.05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.047	0.094	0.141	0.658	0.611	0.188	0.000	1.738
NNE	0.000	0.000	0.047	0.141	0.235	0.329	0.986	0.282	0.000	2.020
NE	0.000	0.000	0.047	0.047	0.094	0.329	0.329	0.047	0.000	0.892
ENE	0.000	0.000	0.047	0.188	0.094	0.470	0.094	0.000	0.000	0.892
E	0.000	0.000	0.000	0.094	0.094	0.282	0.329	0.000	0.000	0.798
ESE	0.000	0.000	0.000	0.141	0.282	1.033	1.315	0.376	0.047	3.194
SE	0.000	0.000	0.141	0.094	0.423	2.302	1.456	0.705	0.188	5.308
SSE	0.000	0.000	0.141	0.376	0.423	1.691	1.033	0.329	0.235	4.227
S	0.000	0.000	0.000	0.235	0.611	0.798	0.892	0.423	0.047	3.006
SSW	0.000	0.047	0.188	0.141	0.329	0.611	1.033	0.047	0.000	2.395
SW	0.000	0.000	0.047	0.094	0.188	0.705	0.564	0.094	0.000	1.691
WSW	0.000	0.000	0.188	0.141	0.094	0.845	0.235	0.047	0.000	1.550
W	0.000	0.000	0.000	0.282	0.329	0.798	0.094	0.047	0.000	1.550
WNW	0.000	0.000	0.000	0.141	0.188	0.470	0.000	0.000	0.000	0.798
NW	0.000	0.000	0.000	0.000	0.047	0.329	0.376	0.000	0.000	0.752
NNW	0.000	0.000	0.000	0.047	0.141	0.376	0.986	0.188	0.047	1.785
SUBTOTAL	0.000	0.047	0.892	2.255	3.711	12.024	10.333	2.771	0.564	32.597

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS E	722
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	694
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2129
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 11.80

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.047	0.000	0.000	0.658	0.188	0.000	0.892
NNE	0.000	0.000	0.000	0.000	0.047	0.047	0.564	0.094	0.000	0.752
NE	0.000	0.047	0.000	0.188	0.047	0.141	0.329	0.000	0.000	0.752
ENE	0.000	0.000	0.094	0.047	0.141	0.517	0.235	0.000	0.000	1.033
E	0.000	0.000	0.047	0.235	0.141	0.094	0.235	0.000	0.000	0.752
ESE	0.000	0.000	0.000	0.188	0.188	0.235	0.047	0.000	0.000	0.658
SE	0.000	0.000	0.000	0.094	0.188	0.752	0.141	0.000	0.000	1.174
SSE	0.000	0.000	0.000	0.094	0.470	0.376	0.235	0.282	0.000	1.456
S	0.000	0.000	0.047	0.094	0.141	0.282	0.376	0.094	0.000	1.033
SSW	0.000	0.000	0.047	0.047	0.047	0.329	0.376	0.000	0.000	0.845
SW	0.000	0.000	0.000	0.047	0.000	0.094	0.094	0.000	0.000	0.235
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.047
W	0.000	0.000	0.047	0.047	0.047	0.047	0.047	0.000	0.000	0.235
WNW	0.000	0.000	0.047	0.094	0.094	0.282	0.000	0.047	0.000	0.564
NW	0.000	0.000	0.047	0.094	0.094	0.188	0.000	0.000	0.000	0.423
NNW	0.000	0.000	0.000	0.047	0.047	0.235	0.282	0.047	0.000	0.658
SUBTOTAL	0.000	0.047	0.376	1.362	1.691	3.617	3.664	0.752	0.000	11.508

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS F	249
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	245
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2129
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 10.92

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

APR 1, 2020 - JUN 30, 2020

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	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
NNE	0.000	0.000	0.000	0.047	0.047	0.000	0.047	0.094	0.000	0.235
NE	0.000	0.000	0.047	0.047	0.047	0.094	0.094	0.188	0.000	0.517
ENE	0.000	0.000	0.000	0.094	0.094	0.235	0.235	0.000	0.000	0.658
E	0.000	0.000	0.000	0.094	0.047	0.000	0.000	0.000	0.000	0.141
ESE	0.000	0.000	0.000	0.141	0.141	0.000	0.000	0.000	0.000	0.282
SE	0.000	0.000	0.094	0.047	0.000	0.094	0.047	0.000	0.000	0.282
SSE	0.000	0.000	0.000	0.047	0.000	0.094	0.094	0.000	0.000	0.235
S	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
SSW	0.000	0.047	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.094
SW	0.000	0.047	0.094	0.000	0.000	0.000	0.000	0.000	0.000	0.141
WSW	0.000	0.000	0.094	0.000	0.000	0.000	0.000	0.000	0.000	0.094
W	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.047
WNW	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
NW	0.000	0.000	0.000	0.047	0.094	0.188	0.000	0.000	0.000	0.329
NNW	0.000	0.000	0.000	0.094	0.094	0.047	0.000	0.000	0.000	0.235
SUBTOTAL	0.000	0.141	0.423	0.705	0.564	0.798	0.517	0.282	0.000	3.429

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2183
TOTAL HOURS OF STABILITY CLASS G	73
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	73
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2129
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/08/10

MEAN WIND SPEED = 8.58

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data

*Table 8C 3<sup>rd</sup> Quarter JFD - Elevated Releases*

Joint Frequency Distribution In Percent

Browns Ferry Nuclear Plant  
 Units 1, 2 and 3  
 2020 Annual Radioactive Effluent Release Report  
 Meteorological Data

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.091	0.000	0.000	0.091
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	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	0.228	0.594	0.228	0.000	0.000	1.050
SSE	0.000	0.000	0.000	0.091	0.137	0.137	0.137	0.000	0.000	0.502
S	0.000	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.046	0.137
SSW	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	0.046	0.000	0.000	0.046
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	0.046	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	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.046
SUBTOTAL	0.000	0.000	0.000	0.091	0.365	0.776	0.639	0.000	0.046	1.918

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2190  
 TOTAL HOURS OF STABILITY CLASS A 42  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A 42  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2190  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 10.83

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.137	0.046	0.000	0.000	0.183
NNE	0.000	0.000	0.000	0.000	0.000	0.137	0.046	0.000	0.000	0.183
NE	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
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	0.046	0.000	0.046	0.000	0.091
SE	0.000	0.000	0.000	0.091	0.228	0.228	0.046	0.046	0.000	0.639
SSE	0.000	0.000	0.046	0.137	0.137	0.183	0.046	0.000	0.000	0.548
S	0.000	0.000	0.000	0.046	0.046	0.046	0.000	0.091	0.000	0.228
SSW	0.000	0.000	0.000	0.046	0.000	0.046	0.000	0.000	0.000	0.091
SW	0.000	0.000	0.000	0.000	0.000	0.091	0.137	0.000	0.000	0.228
WSW	0.000	0.000	0.000	0.000	0.000	0.091	0.137	0.000	0.000	0.228
W	0.000	0.000	0.000	0.000	0.000	0.320	0.000	0.000	0.000	0.320
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.137	0.000	0.000	0.137
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	0.000	0.091	0.091	0.000	0.000	0.183
SUBTOTAL	0.000	0.000	0.046	0.320	0.411	1.461	0.685	0.183	0.000	3.105

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2190  
 TOTAL HOURS OF STABILITY CLASS B 68  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 68  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2190  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 10.65

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.091	0.046	0.046	0.000	0.183
NNE	0.000	0.000	0.000	0.000	0.000	0.091	0.046	0.046	0.000	0.183
NE	0.000	0.000	0.000	0.000	0.000	0.091	0.000	0.000	0.000	0.091
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.046	0.091	0.046	0.000	0.000	0.183
SE	0.000	0.000	0.000	0.228	0.137	0.411	0.046	0.091	0.000	0.913
SSE	0.000	0.000	0.046	0.274	0.274	0.228	0.046	0.046	0.000	0.913
S	0.000	0.000	0.000	0.274	0.091	0.046	0.046	0.000	0.000	0.457
SSW	0.000	0.000	0.046	0.046	0.000	0.091	0.000	0.046	0.000	0.228
SW	0.000	0.000	0.000	0.228	0.046	0.183	0.091	0.000	0.000	0.548
WSW	0.000	0.000	0.000	0.137	0.000	0.046	0.000	0.000	0.000	0.183
W	0.000	0.000	0.000	0.137	0.137	0.548	0.046	0.000	0.000	0.868
WNW	0.000	0.000	0.000	0.000	0.091	0.320	0.000	0.000	0.000	0.411
NW	0.000	0.000	0.000	0.000	0.046	0.046	0.046	0.046	0.000	0.183
NNW	0.000	0.000	0.000	0.000	0.046	0.274	0.137	0.000	0.000	0.457
SUBTOTAL	0.000	0.000	0.091	1.324	0.913	2.557	0.594	0.320	0.000	5.799

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2190
TOTAL HOURS OF STABILITY CLASS C	127
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	127
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2190
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 9.01

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.228	0.228	0.091	0.548	0.457	0.183	0.046	1.781
NNE	0.000	0.000	0.137	0.183	0.320	0.502	0.639	0.046	0.000	1.826
NE	0.000	0.000	0.091	0.091	0.183	0.685	0.091	0.046	0.000	1.187
ENE	0.000	0.000	0.183	0.046	0.046	0.502	0.000	0.000	0.000	0.776
E	0.000	0.000	0.228	0.183	0.274	0.320	0.137	0.000	0.000	1.142
ESE	0.000	0.000	0.228	0.411	0.594	1.050	0.548	0.000	0.000	2.831
SE	0.000	0.046	0.548	1.187	0.639	0.776	0.320	0.091	0.000	3.607
SSE	0.000	0.000	0.822	0.731	0.274	0.913	0.183	0.274	0.000	3.196
S	0.000	0.000	0.822	0.776	0.548	1.279	0.685	0.548	0.137	4.795
SSW	0.000	0.000	0.913	0.776	0.411	0.502	0.868	0.274	0.000	3.744
SW	0.000	0.000	0.959	1.005	0.548	0.868	0.548	0.000	0.000	3.927
WSW	0.000	0.000	0.411	1.598	0.959	0.594	0.502	0.000	0.000	4.064
W	0.000	0.000	0.183	1.142	0.913	1.279	0.228	0.000	0.000	3.744
WNW	0.000	0.000	0.091	0.228	0.457	0.868	0.502	0.091	0.000	2.237
NW	0.000	0.000	0.046	0.137	0.274	0.274	0.274	0.046	0.046	1.096
NNW	0.000	0.000	0.000	0.228	0.320	0.594	0.457	0.000	0.000	1.598
SUBTOTAL	0.000	0.046	5.890	8.950	6.849	11.553	6.438	1.598	0.228	41.553

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2190  
TOTAL HOURS OF STABILITY CLASS D 910  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 910  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2190  
TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 8.31

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.046	0.183	0.913	1.324	0.091	0.000	2.603
NNE	0.000	0.000	0.046	0.046	0.183	1.324	1.781	0.137	0.000	3.516
NE	0.000	0.000	0.137	0.137	0.411	0.685	0.868	0.091	0.046	2.374
ENE	0.000	0.000	0.137	0.091	0.137	0.776	0.320	0.046	0.000	1.507
E	0.000	0.000	0.091	0.183	0.091	0.594	0.959	0.091	0.000	2.009
ESE	0.000	0.000	0.091	0.274	0.502	1.324	1.416	0.320	0.000	3.927
SE	0.000	0.000	0.091	0.228	0.731	1.644	1.050	0.091	0.000	3.836
SSE	0.000	0.000	0.274	0.228	0.959	1.233	0.091	0.046	0.000	2.831
S	0.000	0.000	0.137	0.685	0.868	0.868	0.548	0.000	0.000	3.105
SSW	0.000	0.000	0.091	0.320	0.091	0.411	0.365	0.137	0.000	1.416
SW	0.000	0.000	0.183	0.457	0.320	0.548	0.228	0.000	0.000	1.735
WSW	0.000	0.000	0.000	0.228	0.457	0.183	0.046	0.046	0.000	0.959
W	0.000	0.000	0.137	0.274	0.594	0.274	0.137	0.000	0.000	1.416
WNW	0.000	0.000	0.091	0.228	0.183	0.365	0.046	0.000	0.000	0.913
NW	0.000	0.000	0.183	0.137	0.228	0.137	0.091	0.000	0.000	0.776
NNW	0.000	0.000	0.091	0.183	0.228	0.502	0.274	0.091	0.000	1.370
SUBTOTAL	0.000	0.000	1.826	3.744	6.164	11.781	9.543	1.187	0.046	34.292

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2190  
 TOTAL HOURS OF STABILITY CLASS E 751  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 751  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2190  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 10.12

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.091	0.046	0.548	0.411	0.000	0.000	1.142
NNE	0.000	0.046	0.137	0.137	0.091	0.457	0.183	0.046	0.000	1.096
NE	0.000	0.000	0.091	0.137	0.091	0.685	0.274	0.046	0.000	1.324
ENE	0.000	0.046	0.046	0.046	0.046	0.457	0.183	0.046	0.000	0.868
E	0.000	0.000	0.000	0.091	0.228	0.685	0.137	0.000	0.000	1.142
ESE	0.000	0.000	0.183	0.137	0.183	0.320	0.320	0.000	0.000	1.142
SE	0.000	0.000	0.137	0.091	0.274	0.457	0.365	0.000	0.000	1.324
SSE	0.000	0.000	0.183	0.137	0.137	0.411	0.000	0.000	0.000	0.868
S	0.000	0.000	0.183	0.091	0.274	0.137	0.000	0.000	0.000	0.685
SSW	0.000	0.046	0.228	0.091	0.000	0.000	0.091	0.000	0.000	0.457
SW	0.000	0.000	0.046	0.091	0.000	0.000	0.000	0.000	0.000	0.137
WSW	0.000	0.046	0.046	0.091	0.000	0.000	0.000	0.000	0.000	0.183
W	0.000	0.000	0.046	0.137	0.000	0.000	0.046	0.000	0.000	0.228
WNW	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
NW	0.000	0.000	0.000	0.228	0.091	0.000	0.000	0.000	0.000	0.320
NNW	0.000	0.000	0.091	0.046	0.091	0.046	0.137	0.000	0.000	0.411
SUBTOTAL	0.000	0.183	1.461	1.644	1.553	4.247	2.146	0.137	0.000	11.370

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2190
TOTAL HOURS OF STABILITY CLASS F	249
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	249
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2190
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 8.69

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

JUL 1, 2020 - SEP 30, 2020

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	0.000	0.000	0.046	0.046	0.000	0.000	0.137
NNE	0.000	0.000	0.000	0.046	0.000	0.137	0.411	0.000	0.000	0.594
NE	0.000	0.000	0.046	0.000	0.000	0.046	0.183	0.000	0.000	0.274
ENE	0.000	0.000	0.000	0.000	0.046	0.091	0.046	0.000	0.000	0.183
E	0.000	0.000	0.000	0.000	0.091	0.091	0.000	0.000	0.000	0.183
ESE	0.000	0.046	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.137
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	0.228	0.000	0.000	0.000	0.228
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	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.091
WSW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
SUBTOTAL	0.000	0.046	0.137	0.228	0.183	0.685	0.685	0.000	0.000	1.963

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2190
TOTAL HOURS OF STABILITY CLASS G	43
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	43
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2190
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2020/10/13

MEAN WIND SPEED = 9.80

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data

*Table 8D 4<sup>th</sup> Quarter JFD - Elevated Releases*

Joint Frequency Distribution In Percent

Browns Ferry Nuclear Plant  
 Units 1, 2 and 3  
 2020 Annual Radioactive Effluent Release Report  
 Meteorological Data

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	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	0.136	0.000	0.000	0.136
SSE	0.000	0.000	0.000	0.000	0.045	0.091	0.091	0.045	0.000	0.273
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	0.000	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	0.045	0.000	0.000	0.000	0.045
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.045	0.136	0.227	0.045	0.000	0.455

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2200  
 TOTAL HOURS OF STABILITY CLASS A 10  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A 10  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2200  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 13.16

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

Browns Ferry Nuclear Plant  
 Units 1, 2 and 3  
 2020 Annual Radioactive Effluent Release Report  
 Meteorological Data

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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
NNE	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
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.045	0.045	0.000	0.000	0.000	0.091
SE	0.000	0.000	0.000	0.045	0.000	0.000	0.045	0.000	0.000	0.091
SSE	0.000	0.000	0.000	0.091	0.136	0.045	0.091	0.000	0.000	0.364
S	0.000	0.000	0.000	0.000	0.000	0.045	0.045	0.000	0.000	0.091
SSW	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.045
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.136	0.182	0.182	0.182	0.000	0.000	0.682

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2200  
 TOTAL HOURS OF STABILITY CLASS B 15  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B 15  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2200  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 9.74

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.091	0.227	0.000	0.000	0.318
NNE	0.000	0.000	0.000	0.000	0.000	0.045	0.136	0.000	0.000	0.182
NE	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
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	0.045	0.091	0.364	0.000	0.000	0.000	0.500
SE	0.000	0.000	0.000	0.000	0.000	0.182	0.000	0.091	0.000	0.273
SSE	0.000	0.000	0.000	0.045	0.091	0.000	0.091	0.091	0.000	0.318
S	0.000	0.000	0.000	0.000	0.045	0.000	0.091	0.000	0.000	0.136
SSW	0.000	0.000	0.000	0.091	0.000	0.000	0.000	0.000	0.000	0.091
SW	0.000	0.000	0.000	0.000	0.000	0.136	0.000	0.000	0.000	0.136
WSW	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.045
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.136	0.000	0.136
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	0.045	0.045	0.045	0.000	0.136
SUBTOTAL	0.000	0.000	0.000	0.182	0.227	0.909	0.591	0.364	0.000	2.273

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2200
TOTAL HOURS OF STABILITY CLASS C	50
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	50
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2200
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 11.90

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.136	0.273	0.136	2.000	1.091	0.273	0.000	3.909
NNE	0.000	0.000	0.045	0.182	0.227	2.045	0.591	0.182	0.136	3.409
NE	0.000	0.000	0.045	0.091	0.182	0.455	0.091	0.000	0.000	0.864
ENE	0.000	0.000	0.091	0.182	0.364	0.318	0.000	0.000	0.000	0.955
E	0.000	0.000	0.045	0.136	0.136	0.091	0.091	0.136	0.045	0.682
ESE	0.000	0.000	0.136	0.636	0.500	1.273	0.955	0.091	0.000	3.591
SE	0.000	0.000	0.318	0.591	0.500	0.455	0.455	0.364	0.091	2.773
SSE	0.000	0.000	0.364	0.318	0.273	0.636	0.455	0.273	0.045	2.364
S	0.000	0.000	0.136	0.500	0.091	0.318	0.136	0.091	0.091	1.364
SSW	0.000	0.045	0.318	0.136	0.045	0.273	0.045	0.000	0.045	0.909
SW	0.000	0.045	0.273	0.500	0.045	0.273	0.045	0.000	0.000	1.182
WSW	0.000	0.000	0.318	0.364	0.500	0.591	0.455	0.182	0.136	2.545
W	0.000	0.091	0.000	0.318	0.727	1.318	0.773	0.500	0.000	3.727
WNW	0.000	0.000	0.136	0.500	0.364	0.818	0.864	1.136	0.318	4.136
NW	0.000	0.000	0.091	0.318	0.636	0.500	1.136	1.136	0.136	3.955
NNW	0.000	0.000	0.045	0.136	0.136	0.636	1.591	0.591	0.045	3.182
SUBTOTAL	0.000	0.182	2.500	5.182	4.864	12.000	8.773	4.955	1.091	39.545

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2200  
 TOTAL HOURS OF STABILITY CLASS D 870  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D 870  
 TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2200  
 TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 11.25

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.091	0.045	0.091	0.636	0.955	0.091	0.000	1.909
NNE	0.000	0.000	0.045	0.000	0.136	0.909	0.273	0.000	0.000	1.364
NE	0.000	0.000	0.045	0.045	0.136	0.864	0.364	0.091	0.000	1.545
ENE	0.000	0.000	0.000	0.136	0.182	0.182	0.091	0.091	0.000	0.682
E	0.000	0.000	0.136	0.091	0.318	0.409	0.273	0.364	0.000	1.591
ESE	0.000	0.000	0.000	0.182	0.273	1.545	2.273	0.364	0.000	4.636
SE	0.000	0.000	0.091	0.273	0.091	1.455	3.364	0.818	0.227	6.318
SSE	0.000	0.000	0.000	0.091	0.273	1.136	1.136	1.409	0.727	4.773
S	0.000	0.000	0.045	0.182	0.091	0.955	0.364	0.818	0.182	2.636
SSW	0.000	0.000	0.045	0.182	0.091	0.500	0.364	0.091	0.045	1.318
SW	0.000	0.000	0.045	0.136	0.091	0.591	0.091	0.000	0.000	0.955
WSW	0.000	0.000	0.000	0.182	0.091	0.409	0.136	0.000	0.000	0.818
W	0.000	0.000	0.045	0.136	0.136	0.545	0.364	0.045	0.000	1.273
WNW	0.000	0.000	0.091	0.091	0.273	0.455	0.318	0.000	0.000	1.227
NW	0.000	0.000	0.091	0.227	0.318	0.182	0.727	0.091	0.000	1.636
NNW	0.000	0.000	0.136	0.000	0.045	0.227	0.455	0.045	0.000	0.909
SUBTOTAL	0.000	0.000	0.909	2.000	2.636	11.000	11.545	4.318	1.182	33.591

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 2200  
TOTAL HOURS OF STABILITY CLASS E 739  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E 739  
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS 2200  
TOTAL HOURS CALM 0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 13.10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.182	0.682	0.182	0.000	1.045
NNE	0.000	0.000	0.000	0.045	0.045	0.318	0.364	0.136	0.000	0.909
NE	0.000	0.000	0.000	0.000	0.000	0.364	0.136	0.000	0.000	0.500
ENE	0.000	0.000	0.000	0.000	0.045	0.182	0.409	0.045	0.000	0.682
E	0.000	0.000	0.000	0.091	0.045	0.318	0.227	0.000	0.000	0.682
ESE	0.000	0.000	0.091	0.227	0.182	0.909	0.227	0.000	0.000	1.636
SE	0.000	0.000	0.091	0.091	0.273	0.818	0.727	0.000	0.000	2.000
SSE	0.000	0.000	0.045	0.091	0.318	1.091	0.727	0.455	0.000	2.727
S	0.000	0.000	0.000	0.045	0.364	0.682	0.591	0.273	0.000	1.955
SSW	0.000	0.000	0.000	0.000	0.091	0.136	0.136	0.000	0.000	0.364
SW	0.000	0.000	0.045	0.000	0.000	0.045	0.000	0.000	0.000	0.091
WSW	0.000	0.000	0.000	0.273	0.000	0.136	0.000	0.000	0.000	0.409
W	0.000	0.000	0.045	0.227	0.045	0.182	0.136	0.000	0.000	0.636
WNW	0.000	0.045	0.182	0.182	0.136	0.091	0.000	0.000	0.000	0.636
NW	0.000	0.045	0.045	0.136	0.000	0.273	0.000	0.000	0.000	0.500
NNW	0.000	0.000	0.000	0.091	0.000	0.182	0.273	0.000	0.000	0.545
SUBTOTAL	0.000	0.091	0.545	1.500	1.545	5.909	4.636	1.091	0.000	15.318

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2200
TOTAL HOURS OF STABILITY CLASS F	337
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	337
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2200
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 11.11

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**Browns Ferry Nuclear Plant  
Units 1, 2 and 3  
2020 Annual Radioactive Effluent Release Report  
Meteorological Data**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

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

BROWNS FERRY NUCLEAR PLANT

OCT 1, 2020 - DEC 31, 2020

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	0.091	0.000	0.000	0.182	0.000	0.000	0.273
NNE	0.000	0.000	0.045	0.045	0.045	0.000	0.364	0.045	0.000	0.545
NE	0.000	0.000	0.045	0.045	0.000	0.045	0.136	0.000	0.000	0.273
ENE	0.000	0.000	0.045	0.045	0.045	0.273	0.409	0.000	0.000	0.818
E	0.000	0.000	0.000	0.091	0.091	0.227	0.136	0.000	0.000	0.545
ESE	0.000	0.000	0.136	0.136	0.182	0.409	0.000	0.000	0.000	0.864
SE	0.000	0.000	0.000	0.227	0.273	0.273	0.000	0.000	0.000	0.773
SSE	0.000	0.000	0.045	0.091	0.136	0.364	0.136	0.000	0.000	0.773
S	0.000	0.000	0.136	0.136	0.091	0.182	0.182	0.045	0.000	0.773
SSW	0.000	0.000	0.045	0.136	0.136	0.136	0.045	0.000	0.000	0.500
SW	0.000	0.000	0.045	0.182	0.045	0.182	0.000	0.000	0.000	0.455
WSW	0.000	0.000	0.000	0.182	0.091	0.045	0.000	0.000	0.000	0.318
W	0.000	0.045	0.000	0.045	0.091	0.000	0.000	0.000	0.000	0.182
WNW	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.045
NW	0.000	0.000	0.091	0.182	0.091	0.000	0.000	0.000	0.000	0.364
NNW	0.000	0.045	0.227	0.045	0.091	0.000	0.182	0.045	0.000	0.636
SUBTOTAL	0.000	0.091	0.909	1.682	1.409	2.136	1.773	0.136	0.000	8.136

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2200
TOTAL HOURS OF STABILITY CLASS G	179
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	179
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2200
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: BROWNS FERRY NUCLEAR PLANT  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2021/01/04

MEAN WIND SPEED = 8.60

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS