



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

April 30, 2013

10 CFR 50.4
10 CFR 50.36a

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

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

Subject: 2012 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 2012. This document is in conformance with Title 10 of the Code of Federal Regulations (10 CFR) 50.36a and 10 CFR Part 50, Appendix I Section IV.B.1.

Attachment 1 to the Enclosure documents deviations which have occurred from Offsite Dose Calculation Manual (ODCM) controls and surveillance requirements. Attachment 2 to the Enclosure provides information on radiological effluent instrumentation inoperable for greater than 30 days. There were no revisions to the ODCM during 2012.

There are no new regulatory commitments contained in this letter. Should you have any questions concerning this submittal, please contact Tom Hess, at (423) 751-3487.

Respectfully,

J. W. Shea
Vice President, Nuclear Licensing

Enclosure: 2012 Annual Radioactive Effluent Release Report

cc (w/ Enclosure):

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

IE48
NRR

ENCLOSURE

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

2012 Annual Radioactive Effluent Release Report

See Enclosed

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

TABLE OF CONTENTS

<u>Section Title</u>	<u>Page Number</u>
Supplemental Information	E-3 — E-10
Gaseous Effluents	E-11 — E-19
Liquid Effluents	E-20 — E-24
Solid Waste	E-25 — E-31
Radiological Impact	E-32 — E-47
Meteorological Data	E-48 — E-171
Attachment 1 (Deviations)	E-172
Attachment 2 (Inoperable Instrumentation)	E-173
<u>Tables</u>	<u>Page Number</u>
Table 1A, Gaseous Effluents - Summation of All Releases	E-11 — E-12
Table 1B, Gaseous Effluents - Elevated Releases	E-13 — E-14
Table 1C, Gaseous Effluents - Ground Level Releases	E-15 — E-16
Table 1D, Gaseous Effluents - Mixed Mode Releases	E-17 — E-19
Table 2A, Liquid Effluents - Summation of All Releases	E-20 — E-21
Table 2B, Liquid Effluents	E-22 — E-24
Table 3, Solid Waste and Irradiated Fuel Shipments	E-25 — E-31
Table 4, Radiological Impact, Doses from Airborne Effluents	E-39 — E-42
Table 5, Radiological Impact, Doses from Liquid Effluents	E-43 — E-46
Table 6, Radiological Impact, Total Dose from Fuel Cycle	E-47
Table 7A, Meteorological Data, Joint Frequency Distribution Ground Level Releases, First Quarter	E-48 — E-55
Table 7B, Meteorological Data, Joint Frequency Distribution Ground Level Releases, Second Quarter	E-56 — E-63

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

TABLE OF CONTENTS

<u>Tables</u>	<u>Page Number</u>
Table 7C, Meteorological Data, Joint Frequency Distribution Ground Level Releases, Third Quarter	E-64 — E-71
Table 7D, Meteorological Data, Joint Frequency Distribution Ground Level Releases, Fourth Quarter	E-72 — E-79
Table 8A, Meteorological Data, Joint Frequency Distribution Split Level Releases, First Quarter	E-80 — E-94
Table 8B, Meteorological Data, Joint Frequency Distribution Split Level Releases, Second Quarter	E-95 — E-109
Table 8C, Meteorological Data, Joint Frequency Distribution Split Level Releases, Third Quarter	E-110 — E-124
Table 8D, Meteorological Data, Joint Frequency Distribution Split Level Releases, Fourth Quarter	E-125 — E-139
Table 9A, Meteorological Data, Joint Frequency Distribution Elevated Releases, First Quarter	E-140 — E-147
Table 9B, Meteorological Data, Joint Frequency Distribution Elevated Level Releases, Second Quarter	E-148 — E-155
Table 9C, Meteorological Data, Joint Frequency Distribution Elevated Level Releases, Third Quarter	E-156 — E-163
Table 9D, Meteorological Data, Joint Frequency Distribution Elevated Level Releases, Fourth Quarter	E-164 — E-171

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

SUPPLEMENTAL INFORMATION

1. Regulatory and BFN ODCM Limits

a. Fission and Activation Gases in Gaseous Effluent:

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 ≤ 5 millirad (mrad) for gamma radiation and ≤ 10 mrad for beta radiation; and during any calendar year to ≤ 10 mrad for gamma radiation and ≤ 20 mrad for beta radiation.

b. Iodines and Particulates with Half-Lives Greater than Eight Days in Gaseous Effluents:

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 ≤ 7.5 millirem (mrem), and during any calendar year to ≤ 15 mrem.

c. 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 ≤ 1.5 mrem to the total body and ≤ 5 mrem to any organ and during any calendar year to ≤ 3 mrem to the total body and ≤ 10 mrem to any organ.

2. Limitation on Dose Rate

a. Fission and Activation Gases in Gaseous Effluent:

1. 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 ≤ 500 mrem per year to the total body and ≤ 3000 mrem per year to the skin.

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

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

SUPPLEMENTAL INFORMATION

2. **Limitation on Dose Rate (Continued)**

- b. Iodines and Particulates with Half-Lives Greater than Eight Days in Gaseous Effluents:
 - 1. 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 in gaseous effluent released from the site, shall be limited to ≤ 1500 mrem per year to any organ.
 - 2. The BFN ODCM Section 7.3 determines the maximum particulate and iodine dose rates.
- c. Liquid Effluents:
 - 1. 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
 - 2. For dissolved or entrained noble gases, the concentration shall be limited to $2E-4$ μ Ci per milliliter (ml) total activity.

3. **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.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

SUPPLEMENTAL INFORMATION

4. Measurements and Approximations of Total Radioactivity

a. Fission and activation gases:

1. 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 of noble gases released.
2. The tritium concentration is determined by the analysis of a monthly grab sample for each release point.

b. Iodines and Particulates:

1. 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.
2. 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.

c. Liquid effluents:

1. 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.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

SUPPLEMENTAL INFORMATION

4. Measurements and Approximations of Total Radioactivity (Continued)

c. Liquid effluents (Continued):

2. 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.

d. 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. No liquid or gaseous concentration or dose limits were exceeded.

5. Batch Releases

a. Liquid	<u>Units</u>	<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
1. Number of batches released	Each	2	-	-	-
2. Total time for batches released	Minutes	485.00	-	-	-
3. Maximum time period for a batch release	Minutes	250.00	-	-	-
4. Average time period for a batch release	Minutes	242.50	-	-	-
5. Minimum time period for a batch release	Minutes	235.00	-	-	-
6. Average BFN beach flow during period of release into the river stream	ft ³ /sec	74339	-	-	-

Note: There were no batch releases during the 2nd, 3rd, and 4th quarters.

b. Gaseous

None

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

SUPPLEMENTAL INFORMATION

6. **Abnormal Releases**

a. Liquid

1. Number of releases: 4

2. Total activity released:

<u>Destination</u>	<u>Nuclide</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
Leak to	H-3	-	1.63E+00	8.42E-01	5.70E+00
River	F-18	-	-	7.72E-02	-

b. Gaseous

1. Number of releases: 2

2. Total activity released:

<u>Destination</u>	<u>Nuclide</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
Air	H-3	-	1.99E-02	-	5.49E-03

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SUPPLEMENTAL INFORMATION**

6. Abnormal Releases (Continued)

Summary of Abnormal/Unplanned Releases

The release of radioactive material to the environment from BFN has been a small fraction of the 10 CFR 20 Appendix B and 10 CFR 50 Appendix I limits. There were no limits exceeded as specified in 10 CFR 20 Appendix B and 10 CFR 50 Appendix I.

Four abnormal liquid releases occurred in 2012.

1. From April 2, 2012 to April 4, 2012, a liquid release containing tritium was discharged from the pond structure. A sample from the sump trough on the north end of the Intake Cable Tunnel was obtained. It was discovered that a sump pump was hooked to a discharge line which ran the length of the tunnel and was open to discharge at the south end (forebay end) of the tunnel. The sump pump is located in an Radiologically Controlled Area (RCA) and discharged into a clean area (Problem Evaluation Report (PER) 532416)
2. On September 13, 2012, the BFN, Unit 1 Station Sump was sampled at 0800. The gamma isotopic analysis indicated the presence of Fluorine-18 (F-18). A resample was obtained at 0850 and it confirmed the presence of F-18 (PER 611022).
3. From September 17, 2012 to September 21, 2012, a liquid release containing tritium was discharged from the pond structure (PER 621299).
4. Beginning April 12, 2012, tritium was detected and released through the BFN Unit 1, Unit 2, and Unit 3 Station Sumps. The probable source was the Turbine Building Air Wash System (PER 536459 and PER 706704).

Two abnormal gaseous releases occurred in 2012.

1. The Auxiliary Decay Heat Removal (ADHR) system was placed in service on April 9, 2012. The initial sample of the ADHR catch basin indicated tritium concentration at $1.33\text{E-}05$ uCi/ml. The system was isolated on April 30, 2012 (PER 536466).
2. On October 20, 2012, the ADHR system was returned to service. The initial sample of the ADHR catch basin following the return to service indicated tritium concentration at $2.10\text{E-}06$ uCi/ml. The system was isolated on December 1, 2012 (PER 706710).

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

SUPPLEMENTAL INFORMATION

6. Abnormal Releases (Continued)

Ground Water Monitoring

Onsite groundwater monitoring locations were sampled during the year. These locations were not part of the BFN Radiological Environmental Monitoring Program (REMP). The purpose of these shallow wells was to monitor for potential leaks from plant equipment. Trace levels of tritium were detected in several of these monitoring locations. BFN initiated a groundwater study to identify the source of the tritium. Results from a groundwater study completed in June 2006 suggest the source of the tritiated groundwater is associated with the Radwaste/Condensate Transfer tunnel. Water that may leak into the tunnel could egress via expansion joints and/or cracks through the tunnel wall. These joints and/or cracks were grouted during 2008 with several more leaks grouted in 2010. The highest concentration identified in the groundwater for the year was 3560 pCi/L. 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. The estimated groundwater/channel water dilution ratio is 1:20,000 at a rate of approximately 0.5 gpm. The tritium concentrations obtained in 2012 from these non-REMP wells are listed below.

<u>Well ID</u>	<u>Date</u>	<u>Activity in pCi/L</u>	<u>Well ID</u>	<u>Date</u>	<u>Activity in pCi/L</u>
R-3 (1307)	10/19/2012	381	BH25(1309)	9/10/2012	385
R-3 (1307)	7/24/2012	255	BH25(1309)	5/4/2012	296
R-3 (1307)	5/4/2012	396	DEWAT A(1311)	12/21/2012	846
BH25(1309)	12/21/2012	694	DEWAT A(1311)	11/8/2012	1998
BH25(1309)	12/17/2012	542	DEWAT A(1311)	10/18/2012	809
BH25(1309)	11/14/2012	753	DEWAT A(1311)	7/24/2012	1600
BH25(1309)	11/5/2012	540	DEWAT A(1311)	5/4/2012	3560
			(PER 624796 and PER 679394)		
BH25(1309)	10/29/2012	531	DEWAT E(1312)	12/21/2012	2946
			(PER 679394)		
BH25(1309)	10/24/2012	588	DEWAT E(1312)	11/8/2012	1126
BH25(1309)	10/18/2012	637	DEWAT E(1312)	10/18/2012	1409
BH25(1309)	10/15/2012	648	DEWAT E(1312)	7/24/2012	300
BH25(1309)	10/9/2012	689	DEWAT E(1312)	5/4/2012	348
BH25(1309)	10/3/2012	679	DSN015	11/15/2012	227
BH25(1309)	9/24/2012	668	DSN 015b	11/16/2012	209
BH25(1309)	9/17/2012	671	DSN150d	11/15/2012	221

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SUPPLEMENTAL INFORMATION**

6. Abnormal Releases (Continued)

Liquid Radwaste or Temporary Storage Tanks

BFN used three outside temporary liquid radwaste storage tanks to store approximately 55,000 gallons of radwaste water from March 10, 2012 to April 5, 2012. Concentrations of the tanks were monitored and verified to be less than the limits of 10 CFR 20, Appendix B, Table 2, Column 2, at the nearest potable water supply and the nearest surface water supply in an unrestricted area (Technical Specifications 5.5.8 (b) and Technical Requirements Manual 3.7.1).

Changes to the Radwaste System and Changes to the Process Control Program

In calendar year 2012, BFN had no changes to the radwaste system. The Process Control Program was revised on January 26, 2012.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

GASEOUS EFFLUENTS

TABLE 1A
Page 1 of 2
Gaseous Effluents - Summation of All Releases

	<u>Units</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Error %</u>
A. Fission and Activation Gases						
1. Total Releases	Curies	**	**	3.99E+02	2.94E+02	45
2. Average Release Rate for Period	μCi/sec	**	**	5.02E+01	3.70E+01	
3. Percent of Applicable Limit	%	**	**	****	****	
B. Iodines						
1. Total Iodine-131	Curies	2.71E-03	1.70E-03	2.24E-03	1.77E-03	36
2. Average Release Rate for Period	μCi/sec	3.44E-04	2.17E-04	2.82E-04	2.23E-04	
3. Percent of Applicable Limit	%	****	****	****	****	
C. Particulates						
1. Particulates with half-lives > eight days	Curies	9.02E-04	7.73E-04	4.21E-04	4.54E-04	35
2. Average Release Rate for Period	μCi/sec	1.15E-04	9.83E-05	5.30E-05	5.71E-05	
3. Percent of Applicable Limit	%	****	****	****	****	
4. Gross Alpha Radioactivity	Curies	**	**	**	**	
D. Tritium						
1. Total Release	Curies	4.16E+02	6.22E+01*	6.90E+01	4.97E+01*	21
2. Average Release Rate for Period	μCi/sec	5.29E+01	7.92E+00*	8.68E+00	6.25E+00*	
3. Percent of Applicable Limit	%	****	****	****	****	

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

GASEOUS EFFLUENTS

TABLE 1A (Continued)

Page 2 of 2

Gaseous Effluents - Summation of All Releases

	<u>Units</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Error %</u>
E. Carbon-14***						
1. Total Release	Curies	9.93E+00	7.76E+00	1.02E+01	8.22E+00	N/A
2. Total as CO ₂	Curies	9.43E+00	7.37E+00	9.69E+00	7.81E+00	

* - Includes Activity from Abnormal Release

** - Not Detected.

*** - Estimated using Electric Power Research Institute (EPRI) methodology provided in EPRI Report 1021106.

**** - Applicable Limits are expressed in terms of dose. See Radiological Impact Report.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

GASEOUS EFFLUENTS
(Continuous Mode Only)

TABLE 1B
Page 1 of 2
Gaseous Effluents - Elevated Releases

<u>CURIES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
1. Fission Gases				
Kr-85m	*	*	3.49E+00	*
Kr-85	*	*	*	*
Kr-87	*	*	*	*
Kr-88	*	*	*	*
Xe-133	*	*	*	*
Xe-135m	*	*	*	*
Xe-135	*	*	*	*
Xe-138	*	*	*	*
Others (N-13)	*	*	3.96E+02	2.94E+02
<u>Total for Period</u>	<u>—</u>	<u>—</u>	<u>3.99E+02</u>	<u>2.94E+02</u>
2. Iodines				
I-131	5.89E-04	3.96E-04	5.35E-04	2.73E-04
I-135	*	5.41E-04	*	*
I-133	1.34E-03	1.05E-03	1.30E-03	5.62E-04
<u>Total for Period</u>	<u>1.93E-03</u>	<u>1.99E-03</u>	<u>1.83E-03</u>	<u>8.35E-04</u>

* - Not Detected.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

GASEOUS EFFLUENTS
(Continuous Mode Only)

TABLE 1B (Continued)

Page 2 of 2

Gaseous Effluents - Elevated Releases

<u>CURIES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
3. Particulates*				
Sr-89	1.47E-04	1.03E-04	1.88E-04	1.87E-04
Sr-90	**	**	**	**
Sr-91	2.67E-03	9.48E-04	2.31E-03	2.72E-03
Cs-134	**	**	**	**
Cs-137	**	**	**	**
Ba-140	2.38E-04	1.07E-04	2.33E-04	2.67E-04
La-140	1.45E-04	6.81E-05	1.56E-04	1.83E-04
Te-132	7.03E-07	**	**	**
Others (Zn-69m)	**	**	9.17E-06	**
Others (Au-199)	**	**	1.22e-06	**
RB-89	2.29E-02	**	**	**
Y-91m	1.81E-03	8.53E-04	1.80E-03	1.97E-03
Cs-138	7.32E-03	**	**	**
Ba-139	2.07E-01	8.57E-02	2.48E-01	2.41E-01
<u>Total for Period*</u>	<u>2.42E-01</u>	<u>8.78E-02</u>	<u>2.53E-01</u>	<u>2.46E-01</u>
4. Tritium	2.68E+00	2.43E+00	5.39E+00	3.97E+00
5. Carbon-14***	9.43E+00	7.37E+00	9.69E+00	7.81E+00

* - Includes all nuclides, even those with less than an eight day half-life.

** - Not Detected.

*** - Estimated using EPRI methodology provided in EPRI Report 1021106.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

GASEOUS EFFLUENTS
(Continuous Mode Only)

TABLE 1C
Page 1 of 2
Gaseous Effluents - Ground Level Releases

<u>CURIES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
1. Fission Gases				
Kr-85m	*	*	*	*
Kr-85	*	*	*	*
Kr-87	*	*	*	*
Kr-88	*	*	*	*
Xe-133	*	*	*	*
Xe-135m	*	*	*	*
Xe-135	*	*	*	*
Xe-138	*	*	*	*
Ar-41	*	*	*	*
Other (specify)	*	*	*	*
<u>Total for Period</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>
2. Iodines				
I-131	1.03E-03	4.53E-04	3.49E-04	4.69E-04
I-132	4.61E-05	*	*	*
I-133	4.25E-03	5.42E-04	1.16E-03	1.83E-03
<u>Total for Period</u>	<u>5.33E-03</u>	<u>9.95E-04</u>	<u>1.51E-03</u>	<u>2.30E-03</u>

* - Not Detected.

** - Activity from Abnormal Release.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

GASEOUS EFFLUENTS
(Continuous Mode Only)

TABLE 1C (Continued)

Page 2 of 2

Gaseous Effluents - Ground Level Releases

<u>CURIES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
3. Particulates*				
Co-60	**	2.53E-05	7.81E-06	**
Sr-89	6.26E-05	9.85E-07	**	1.54E-05
Sr-90	**	**	**	**
Cs-134	**	**	**	**
Cs-137	**	**	**	**
Ba-140	9.95E-05	5.69E-06	**	1.25E-05
La-140	5.05E-05	2.67E-06	**	**
Sr-91	8.21E-04	1.63E-05	**	**
Other (Mn-54)	**	**	2.89E-06	**
Other (Au-199)	**	**	**	**
Y-91m	2.28E-03	7.85E-05	6.15E-05	4.17E-04
Cs-138	2.42E-02	**	**	1.31E-02
Ba-139	1.05E-01	6.04E-03	4.93E-03	1.66E-02
<u>Total for Period*</u>	<u>1.32E-01</u>	<u>6.17E-03</u>	<u>5.00E-03</u>	<u>3.01E-02</u>
4. Tritium	<u>9.32E+00</u>	<u>2.70E+00***</u>	<u>8.95E-01</u>	<u>5.68E+00***</u>

* - Include all nuclides even those with less than an eight day half-life.

** - Not Detected.

*** - Includes Activity from Abnormal Release.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

**GASEOUS EFFLUENTS
(Continuous Mode Only)**

**TABLE 1D
Page 1 of 3
Gaseous Effluents - Mixed Mode Releases**

<u>CURIES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
1. Fission Gases				
Kr-85m	**	**	**	**
Kr-85	**	**	**	**
Kr-87	**	**	**	**
Kr-88	**	**	**	**
Xe-133	**	**	**	**
Xe-135m	**	**	**	**
Xe-135	**	**	**	**
Xe-138	**	**	**	**
Other (specify)	**	**	**	**
<u>Total for Period</u>	<u>**</u>	<u>**</u>	<u>**</u>	<u>**</u>
2. Iodines				
I-131	1.09E-03	8.53E-04	1.36E-03	1.03E-03
I-132	4.63E-04	**	**	**
I-133	5.19E-03	2.86E-03	6.20E-03	5.24E-03
<u>Total for Period</u>	<u>6.73E-03</u>	<u>3.71E-03</u>	<u>7.56E-03</u>	<u>6.27E-03</u>

* - The Reactor Building and Radwaste Building are treated as split-level releases.
 ** - Not Detected.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

**GASEOUS EFFLUENTS
(Continuous Mode Only)**

TABLE 1D (Continued)

Page 2 of 3

Gaseous Effluents - Mixed Mode Releases

<u>CURIES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
3. Particulates**				
Sr-89	5.56E-05	1.36E-06	4.69E-05	8.23E-04
Ru-103	***	***	3.50E-06	***
Ag-110m	***	***	4.93E-06	4.28E-05
Cs-137	3.23E-05	4.87E-06	2.55E-05	1.89E-05
Ba-140	1.59E-04	5.91E-05	1.48E-04	3.33E-04
La-140	7.21E-05	3.50E-05	3.31E-05	1.53E-04
Na-24	***	5.56E-05	1.45E-04	1.75E-04
Cr-51	***	2.04E-05	***	3.50E-05
Mn-54	1.56E-05	1.79E-05	4.59E-05	6.70E-05
Mn-56	1.17E-02	9.98E-03	1.97E-02	2.70E-02
Co-58	4.44E-05	1.97E-05	1.02E-04	9.32E-05
Co-60	3.38E-05	4.08E-04	5.05E-04	3.39E-04
Zn-65	1.36E-05	***	5.66E-05	4.92E-05
Zn-69m	4.22E-05	1.80E-05	7.75E-05	9.51E-05
Y-91m	2.90E-03	6.78E-04	1.85E-03	3.22E-03
Sr-91	3.13E-03	1.23E-04	8.94E-04	2.63E-03
Sr-92	***	***	***	4.98E-04

* - The Reactor Building and Radwaste Building are treated as split-level releases.

** - Includes all nuclides, even those with less than an eight day half-life.

*** - Not Detected.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

GASEOUS EFFLUENTS
(Continuous Mode Only)

TABLE 1D (Continued)
Page 3 of 3
Gaseous Effluents - Mixed Mode Releases

<u>CURIES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
3. Particulates** (Continued)				
Mo-99	1.62E-06	2.12E-06	1.74E-06	***
Tc-99m	1.58E-06	2.07E-06	1.70E-06	***
Cs-138	7.51E-03	***	1.10E-02	1.91E-02
Ba-139	1.26E-01	1.56E-02	7.16E-02	1.16E-01
Y-92	***	***	***	7.14E-04
Total for Period**	<u>1.52E-01</u>	<u>2.70E-02</u>	<u>1.06E-01</u>	<u>1.71E-01</u>
4. Tritium	<u>4.04E+02</u>	<u>5.71E+01</u>	<u>6.27E+01</u>	<u>4.01E+01</u>

* - The Reactor Building and Radwaste Building are treated as split-level releases.

** - Includes all nuclides, even those with less than an eight day half-life.

*** - Not Detected.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

**LIQUID EFFLUENTS
(Batch Mode Only)**

**TABLE 2A
Page 1 of 2
Liquid Effluents - Summation of All Releases**

	<u>Units</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Error %</u>
A. Fission and Activation Products (Does not include tritium, gases, Alpha)						
1. Total Release	Curies	9.43E-04	-	7.72E-02**	-	9
2. Average Diluted Concentration Released During Period	μCi/ml	3.67E-10	-	1.44E-07**	-	
3. Percent of Applicable Limit	%	***	-	***	-	
B. Tritium						
1. Total Releases	Curies	1.41E+00	1.63E+00**	8.42E-01**	5.70E+00**	6
2. Average Diluted Concentration Released During Period	μCi/ml	5.49E-07	4.98E-03**	1.58E-06**	1.97E-05**	
3. Percent of Applicable Limit	%	***	***	***	***	
C. Dissolved and Entrained Noble Gases						
1. Total Releases	Curies	*	-	-	-	8
2. Average Diluted Concentration Released During Period	μCi/ml	*	-	-	-	
3. Percent of Applicable Limit	%	***	-	-	-	
D. Gross Alpha Radioactivity						
1. Total Releases	Curies	*	-	-	-	48
2. Average Diluted Concentration Released During Period	μCi/ml	*	-	-	-	

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

**LIQUID EFFLUENTS
(Batch Mode Only)**

TABLE 2A (Continued)

Page 2 of 2

Liquid Effluents - Summation of All Releases

	<u>Units</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Error %</u>
E. Volume of Liquid Waste to Discharge Canal (Prior to dilution)	Liters	2.61E+05	4.67E+08**	6.32E+08**	2.89E+08**	3
F. Volume of Dilution Water for Period	Liters	2.57E+09	**	**	**	10
G. Total CCW	Gigagal	2.31E+02	2.23E+02	2.66E+02	2.34E+02	

* - Not Detected.

** - Includes activity from abnormal releases. Dilution flow was not determined for the abnormal releases.

*** - The applicable limit is expressed in terms of dose. See Radiological Impact Report.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

LIQUID EFFLUENTS
(Batch Mode Only)

TABLE 2B
Page 1 of 3
Liquid Effluents

<u>CURIES</u> <u>Isotope</u> (Required by Regulatory (REG) Guide 1.21)		<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
1.	Ba-140	*	-	-	-
2.	Ce-141	*	-	-	-
3.	Co-58	*	-	-	-
4.	Co-60	3.02E-04	-	-	-
5.	Cr-51	*	-	-	-
6.	Cs-134	1.23E-05	-	-	-
7.	Cs-137	6.01E-04	-	-	-
8.	Fe-59	*	-	-	-
9.	I-131	*	-	-	-
10.	La-140	*	-	-	-
11.	Mn-54	1.30E-05	-	-	-
12.	Mo-99	*	-	-	-
13.	Nb-95	*	-	-	-
14.	Sr-89	*	-	-	-
15.	Sr-90	*	-	-	-
16.	Tc-99m	*	-	-	-
17.	Xe-133	*	-	-	-

* - Not Detected.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

LIQUID EFFLUENTS
(Batch Mode Only)
TABLE 2B (Continued)
Page 2 of 3
Liquid Effluents

<u>CURIES</u> <u>Isotope</u> <u>(Required by Regulatory</u> <u>(REG) Guide 1.21)</u>		<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
18.	Xe-135	*	-	-	-
19.	Zn-65	*	-	-	-
20.	Zr-95	*	-	-	-

* - Not Detected.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

LIQUID EFFLUENTS
(Batch Mode Only)
TABLE 2B (Continued)
Page 3 of 3
Liquid Effluents

<u>CURIES</u>					
<u>Isotope</u>					
<u>Others (Not Required by REG</u>					
<u>Guide 1.21)</u>		<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
1.	F-18	**	-	7.72E-02*	-
2.	Fe-55	7.74E-06	-	-	-
3	Mn-56	**	-	-	-
4	Zn-69m	**	-	-	-
5	Kr-88	**	-	-	-
6	Nb-97	**	-	-	-
7	Ag-110m	6.68E-06	-	-	-
8	Sb-124	**	-	-	-
9	I-133	**	-	-	-
10	As-76	**	-	-	-
11	Na-24	**	-	-	-
12	Y-91m	**	-	-	-
13	Xe-133m	**	-	-	-

* - Activity from abnormal release.

** - Not Detected.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

SOLID WASTE

**TABLE 3
Page 1 of 7
Solid Waste and Irradiated Fuel Shipments**

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

1. Type of Waste	Unit	Jan - Jun 2012	July-Dec 2012	Error %
a. Spent resins, filters, sludges, evaporator bottoms, etc.	m ³	1.53E+02	9.80E+01	+/- 25%
	Ci	6.29E+02	6.01E+02	+/- 25%
b. Dry Active Waste, Compressible Waste Contaminated Equipment, etc.	m ³	2.25E+03	1.48E+03	+/- 25%
	Ci	1.97E+01	5.88E-01	+/- 25%
c. Irradiated Components, Control Rods, etc.	m ³	0.00E+00	3.18E+00	+/- 25%
	Ci	0.00E+00	1.86E+04	+/- 25%
d. Other (Describe)	m ³	4.67E+01	3.77E+01	+/- 25%
	Ci	1.09E+00	9.09E-01	+/- 25%

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

SOLID WASTE

TABLE 3 (Continued)
Page 2 of 7
Solid Waste and Irradiated Fuel Shipments

2. Estimate of Major Nuclide Composition

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

<u>Nuclide</u>	<u>Percent</u>	<u>Curies</u>
H-3	3.29E-02	4.04E-01
C-14	5.38E-02	6.62E-01
Cr-51	9.76E-02	1.20E+00
Mn-54	3.46E+00	4.26E+01
Fe-55	1.70E+01	2.09E+02
Fe-59	1.59E-02	1.95E-01
Co-57	2.32E-03	2.85E-02
Co-58	6.71E-01	8.25E+00
Co-60	4.27E+01	5.25E+02
Ni-59	5.01E-04	6.16E-03
Ni-63	1.20E+00	1.48E+01
Cu-64	2.66E-07	3.27E-06
Zn-65	2.07E+00	2.54E+01
Zn-69m	2.85E-15	3.51E-14
Sr-89	8.78E-03	1.08E-01
Sr-90	4.11E-02	5.05E-01
Zr-95	4.58E-05	5.63E-04
Nb-95	5.50E-05	6.77E-04
Mo-99	5.58E-06	6.86E-05
Tc-99	1.36E-02	1.67E-01
Tc-99m	2.39E-22	2.94E-21
Ag-110m	3.68E-01	4.53E+00
Sb-124	4.86E-05	5.98E-04
Te-132	6.25E-46	7.69E-45
I-129	1.24E-05	1.52E-04
I-131	4.98E-02	6.13E-01
I-133	9.11E-08	1.12E-06
Cs-134	1.74E+00	2.14E+01
Cs-136	6.72E-45	8.27E-44
Cs-137	3.03E+01	3.73E+02
Ba-140	6.07E-02	7.46E-01
La-140	1.85E-03	2.27E-02

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

SOLID WASTE

TABLE 3 (Continued)
Page 3 of 7
Solid Waste and Irradiated Fuel Shipments

2. Estimate of Major Nuclide Composition (Continued)

a. Spent resins, filters, sludges, evaporator bottoms, etc. (Continued)

<u>Nuclide</u>	<u>Percent</u>	<u>Curies</u>
Ce-141	2.50E-02	3.08E-01
Ce-144	3.89E-02	4.78E-01
Pu-238	2.53E-04	3.11E-03
Pu-239	9.59E-06	1.18E-04
Pu-240	9.59E-06	1.18E-04
Pu-241	3.07E-02	3.77E-01
Am-241	1.26E-04	1.55E-03
Cm-242	1.37E-05	1.69E-04
Cm-243	1.52E-04	1.87E-03
Cm-244	1.03E-04	1.27E-03

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

SOLID WASTE

TABLE 3 (Continued)
Page 4 of 7
Solid Waste and Irradiated Fuel Shipments

2. Estimate of Major Nuclide Composition (Continued)

**b. Dry Active Waste, Compressible Waste
Contaminated Equipment, etc.**

<u>Nuclide</u>	<u>Percent</u>	<u>Curies</u>
H-3	2.37E+01	4.81E+00
C-14	2.23E-03	4.52E-04
K-40	1.99E-01	4.04E-02
Cr-51	8.38E-04	1.70E-04
Mn-54	8.23E+00	1.67E+00
Fe-55	2.28E+01	4.62E+00
Fe-59	1.29E-03	2.61E-04
Co-58	1.02E+00	2.06E-01
Co-60	3.45E+01	7.00E+00
Ni-63	1.40E+00	2.83E-01
Zn-65	4.77E+00	9.68E-01
Sr-89	2.56E-02	5.20E-03
Sr-90	4.93E-03	1.00E-03
Zr-95	1.15E-04	2.33E-05
Nb-95	0.00E+00	0.00E+00
Tc-99	6.46E-03	1.31E-03
Ag-110m	1.81E+00	3.67E-01
Sb-124	2.31E-04	4.68E-05
I-131	8.82E-06	1.79E-06
Cs-134	2.89E-02	5.86E-03
Cs-137	1.11E+00	2.26E-01
Ba-140	8.28E-05	1.68E-05
La-140	1.77E-17	3.60E-18
Ce-141	2.57E-04	5.22E-05
Ce-144	3.56E-01	7.23E-02
Pu-238	1.14E-04	2.32E-05
Pu-239	1.37E-05	2.77E-06
Pu-240	1.37E-05	2.77E-06
Pu-241	3.45E-02	6.99E-03
Am-241	7.99E-05	1.62E-05
Cm-242	2.41E-04	4.89E-05
Cm-243	1.68E-05	3.40E-06
Cm-244	1.68E-05	3.40E-06

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

SOLID WASTE

TABLE 3 (Continued)
Page 5 of 7
Solid Waste and Irradiated Fuel Shipments

2. Estimate of Major Nuclide Composition (Continued)

c. Irradiated Components, Control Rods, etc.

<u>Nuclide</u>	<u>Percent</u>	<u>Curies</u>
H-3	2.22E-03	4.14E-01
C-14	1.26E-02	2.35E+00
Mn-54	4.89E-01	9.10E+01
Fe-55	4.81E+01	8.95E+03
Co-60	4.42E+01	8.23E+03
Ni-59	3.61E-02	6.72E+00
Ni-63	7.17E+00	1.34E+03
Nb-94	1.33E-04	2.47E-02
Tc-99	5.71E-05	1.06E-02
U-235	2.71E-10	5.05E-08
Np-237	7.58E-09	1.41E-06
Pu-238	1.14E-04	2.13E-02
Pu-239	9.90E-08	1.84E-05
Pu-240	1.68E-07	3.13E-05
Pu-241	2.05E-05	3.82E-03
Am-241	2.03E-07	3.79E-05
Am-243	6.89E-09	1.28E-06
Cm-242	3.99E-08	7.42E-06
Cm-243	6.27E-09	1.17E-06
Cm-244	1.70E-06	3.17E-04

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

SOLID WASTE

TABLE 3 (Continued)
Page 6 of 7
Solid Waste and Irradiated Fuel Shipments

2. Estimate of Major Nuclide Composition (Continued)

d. Other (Combined Packages)

<u>Nuclide</u>	<u>Percent</u>	<u>Curies</u>
H-3	6.56E-03	1.31E-04
C-14	4.89E-02	9.77E-04
Mn-54	3.79E+00	7.56E-02
Fe-55	1.34E+01	2.67E-01
Co-58	4.70E-01	9.39E-03
Co-60	6.31E+01	1.26E+00
Ni-63	1.12E+00	2.23E-02
Zn-65	2.06E+00	4.11E-02
Sr-89	5.21E-02	1.04E-03
Sr-90	2.05E-02	4.09E-04
Nb-95	9.11E-02	1.82E-03
Tc-99	1.05E-04	2.10E-06
Ag-110m	1.26E+00	2.51E-02
Cs-134	9.71E-01	1.94E-02
Cs-137	1.34E+01	2.68E-01
Ce-141	7.01E-02	1.40E-03
Ce-144	1.50E-01	2.99E-03
Pu-238	3.26E-06	6.52E-08
Pu-239	1.26E-06	2.51E-08
Pu-241	1.80E-02	3.59E-04
Am-241	1.86E-04	3.71E-06
Cm-242	6.56E-06	1.31E-07
Cm-243	1.34E-04	2.67E-06

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

SOLID WASTE

**TABLE 3 (Continued)
Page 7 of 7**

Solid Waste and Irradiated Fuel Shipments

3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
66	Cask, tankers, Sole Use Trucks (Hittman)	Energy Solutions Oak Ridge, TN (Bear Creek)
54	Sole Use Trucks (Tri-State)	Energy Solutions Oak Ridge, TN (Bear Creek)
1	Sole Use Truck (TVA HED)	Energy Solutions Oak Ridge, TN (Bear Creek)
6	Non Sole Use Trucks (Hittman)	Energy Solutions Memphis, TN
2	Sole Use Trucks	Energy Solutions Memphis, TN
29	Sole Use Trucks, Tankers	Energy Solutions
	Casks (Hittman)	Oak Ridge, TN (Kingston)
2	Non Sole Use Trucks (Tri-State)	Energy Solutions Oak Ridge, TN (Kingston)
40	Sole Use Trucks and Tankers (Hittman)	Barnwell Processing Facility Barnwell, SC
5	Sole Use Trucks, Cask (Hittman)	Waste Control Specialist Andrews, TX

B. Irradiated Fuel Shipments

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
2	Hittman	Waste Control Specialist Andrews, TX

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SOLID WASTE**

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

RADIOLOGICAL IMPACT

1. 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.

2. 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:

$$\begin{aligned} &\leq 5 \text{ mrad per quarter and} \\ &\leq 10 \text{ mrad per year for gamma radiation.} \\ &\quad - \text{ and } - \\ &\leq 10 \text{ mrad per quarter and} \\ &\leq 20 \text{ mrad per year for beta radiation.} \end{aligned}$$

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:

$$\begin{aligned} &\leq 7.5 \text{ mrem per quarter and} \\ &\leq 15 \text{ mrem per year to any organ.} \end{aligned}$$

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

$$\begin{aligned} &\leq 1.5 \text{ mrem per quarter and} \\ &\leq 3 \text{ mrem per year to the total body,} \\ &\quad - \text{ and } - \\ &\leq 5 \text{ mrem per quarter and} \\ &\leq 10 \text{ mrem per year to any organ.} \end{aligned}$$

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

$$100 \text{ mrem per year.}$$

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT

2. Dose Limits (Continued)

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:

$$\begin{aligned} &\leq 25 \text{ mrem per year to the whole body,} \\ &\leq 75 \text{ mrem per year to the thyroid,} \\ &\quad - \text{ and } - \\ &\leq 25 \text{ mrem per year to any other organ.} \end{aligned}$$

3. 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 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 4, 5, and 6.

4. 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.

a. Airborne Release Points

There are four monitored release points from BFN: the turbine building, the radwaste building, the reactor building, and the stack.

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 the 2012 Meteorological Data Tables 7A, 7B, 7C, and 7D.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

RADIOLOGICAL IMPACT

4. Doses From Airborne Effluents (Continued)

a. Airborne Release Points (Continued)

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 temperature difference between 10.03 and 89.59 meters. Both of these JFDs are given for each quarter in the 2012 Meteorological Data Tables 8A, 8B, 8C, and 8D.

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 the 2012 Meteorological Data Tables 9A, 9B, 9C, 9D.

b. Meteorological Data

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 noncalm 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.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

RADIOLOGICAL IMPACT

4. Doses From Airborne Effluents (Continued)

c. External Exposure Dose

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.

d. Submersion Dose

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.

e. Organ Dose

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 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 4.

5. Doses From Airborne 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.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

RADIOLOGICAL IMPACT

5. Doses From Airborne Effluents (Continued)

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.

a. Liquid Release Points and River Data

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 of his 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 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 5 along with the average river flows past the plant site for the periods.

6. Population Doses

Population doses due to airborne effluents are calculated for an estimated 778,266 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.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
RADIOLOGICAL IMPACT**

6. Population Doses (Continued)

Population doses calculated for airborne and liquid effluents are presented in Tables 4 and 5

7. 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 quarterly gamma radiation levels determined from these dosimeters during this reporting period averaged approximately 18 mrem/quarter at onsite (at or near the site boundary) stations and approximately 15 mrem/quarter at offsite stations or approximately 2.5 mrem/quarter higher onsite than at offsite stations. This difference is consistent with levels measured for pre-operation and construction phases of the Tennessee Valley Authority nuclear plants where the average radiation levels onsite were generally 2-6 mrem/quarter higher than the levels offsite. This may be attributable to natural variations in environmental radiation levels, earth moving activities onsite, the mass of concrete employed in the construction of the plants, or other undetermined influences. Fluctuations in natural background dose rates and in 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.

8. 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 onsite. 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 a Thermoluminescent Dosimeter near the Livewell Center (Training Center). The direct radiation dose accounting for background and occupancy was 0.63 mrem during 2012.

The total annual dose commitment to a member of the public for 2012 is 0.63 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.

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT**

9. 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 6.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT

TABLE 4
Page 1 of 4
Doses from Airborne Effluents

First Quarter

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
External				
Gamma Air	8.7E-10 mrad	5 mrad	< 1 %	NNW/1650 meters
Beta Air	2.7E-09 mrad	10 mrad	< 1 %	NNW/1650 meters
Submersion				
Total Body	1.4E-04 mrem	NA	NA	NNW/1650 meters
Skin	1.6E-04 mrem	NA	NA	NNW/1650 meters
Organ Doses				
Child/Bone	1.2E-01 mrem	7.5 mrem	1.6 %	NNW 1790 meters
Child/Thyroid	1.3E-01 mrem	7.5 mrem	1.7 %	NNW 1790 meters
Child/Total Body	1.1E-01 mrem	7.5 mrem	1.5 %	NNW 1790 meters

Population Doses

Total Body Dose 3.3E-01 man-rem

Maximum Organ Dose (organ) 3.6E-01 man-rem (thyroid)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT

TABLE 4 (Continued)
Page 2 of 4
Doses from Airborne Effluents

Second Quarter*

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
External				
Gamma Air	1.8E-10 mrad	5 mrad	< 1 %	NW/2275 meters
Beta Air	3.5E-10 mrad	10 mrad	< 1 %	S/2250 meters
Submersion				
Total Body	9.3E-04 mrem	NA	NA	NNW/1650 meters
Skin	1.1E-03 mrem	NA	NA	NNW/1650 meters
Organ Doses				
Child/Bone	3.0E-02 mrem	7.5 mrem	< 1 %	NNW/1790 meters
Child/Thyroid	1.7E-02 mrem	7.5 mrem	< 1 %	NNW/1790 meters
Child/Total Body	1.2E-02 mrem	7.5 mrem	< 1 %	NNW/1790 meters

Population Doses

Total Body Dose 1.3E-01 man-rem

Maximum Organ Dose (organ) 5.1E-01 man-rem (bone)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).

* Includes dose from abnormal releases.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT

TABLE 4 (Continued)
Page 3 of 4
Doses from Airborne Effluents

Third Quarter

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
External				
Gamma Air	2.6-06 mrad	5 mrad	< 1 %	N/4900 meters
Beta Air	4.1E-06 mrad	10 mrad	< 1 %	N/4900 meters
Submersion				
Total Body	1.4E-03 mrem	NA	NA	E/1410 meters
Skin	1.6E-03 mrem	NA	NA	E/1410 meters
Organ Doses				
Child/Bone	3.4E-02 mrem	7.5 mrem	< 1 %	E/1410 meters
Child/Thyroid	2.1E-02 mrem	7.5 mrem	< 1 %	E/1410 meters
Child/Total Body	1.3E-02 mrem	7.5 mrem	< 1 %	NNW/1790 meters

Population Doses

Total Body Dose 1.8E-01 man-rem

Maximum Organ Dose (organ) 7.6E-01 man-rem (bone)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT

TABLE 4 (Continued)
Page 4 of 4
Doses from Airborne Effluents

Fourth Quarter*

Individual Doses

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
External				
Gamma Air	2.6E-10 mrad	5 mrad	< 1 %	S/2250 meters
Beta Air	7.9E-10 mrad	10 mrad	< 1 %	S/2250 meters
Submersion				
Total Body	6.9E-4 mrem	NA	NA	ESE/1750 meters
Skin	8.1E-04 mrem	NA	NA	ESE/1750 meters
Organ Doses				
Child/ Bone	2.2E-02 mrem	7.5 mrem	< 1 %	N/2540 meters
Child/Thyroid	1.3E-02 mrem	7.5 mrem	< 1 %	NNW/1790 meters
Child /Total Body	9.4E-03 mrem	7.5 mrem	< 1 %	NNW/1790 meters

Population Doses

Total Body Dose 1.2E-01 man-rem

Maximum Organ Dose (organ) 4.6E-01 man-rem (bone)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).

* Includes dose from abnormal releases.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT

Table 5
Page 1 of 4
Doses from Liquid Effluents

First Quarter

Individual Doses (mrem)

Age Group	Organ	Dose Pathway	Dose	Quarterly Limit	Percent of Limit
Adult	Total Body	Fish Ingestion	9.0E-05		
		Recreation	1.3E-05		
		Water Ingestion	7.1E-06		
		Total	1.1E-04	1.5 mrem	< 1 %
Adult	Liver	Fish Ingestion	1.4E-04		
		Recreation	1.3E-05		
		Water Ingestion	7.9E-06		
		Total	6.1E-05	5 mrem	< 1 %
Child	Thyroid	Fish Ingestion	9.0E-08		
		Recreation	1.3E-05		
		Water Ingestion	7.3E-06		
		Total	2.0E-05	5 mrem	< 1 %

Average Riverflow past BFN (cubic feet per second): 74339

Population Doses

Total Body Dose 8.1E-04 man-rem

Maximum Organ Dose (organ) 1.3E-03 man-rem (liver)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

RADIOLOGICAL IMPACT

**Table 5 (Continued)
Page 2 of 4
Doses from Liquid Effluents**

Second Quarter

Individual Doses (mrem)

Age Group	Organ	Dose Pathway	Dose	Quarterly Limit	Percent of Limit
Child	Total Body	Fish Ingestion	5.9E-07		
		Recreation	0.0E+00		
		Water Ingestion	4.7E-05		
		Total	4.8E-05	1.5 mrem	< 1 %
Child	Liver**	Fish Ingestion	5.9E-07		
		Recreation	0.0E+00		
		Water Ingestion	4.7E-05		
		Total	4.8E-05	5 mrem	< 1 %
Child	Thyroid	Fish Ingestion	5.9E-07		
		Recreation	0.0E+00		
		Water Ingestion	4.7E-05		
		Total	4.8E-05	5 mrem	< 1 %

Average Riverflow past BFN (cubic feet per second): 13255

Population Doses

Total Body Dose 8.1E-04 man-rem

Maximum Organ Dose (organ) 8.1E-04 man-rem (liver**)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).

* Includes dose from abnormal releases.

**All organ doses are equal.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT

Table 5 (Continued)
Page 3 of 4
Doses from Liquid Effluents

Third Quarter*

Individual Doses (mrem)

Age Group	Organ	Dose Pathway	Dose	Quarterly Limit	Percent of Limit
Child	Total Body	Fish Ingestion	1.5E-07		
		Recreation	0.0E+00		
		Water Ingestion	1.2E-05		
		Total	1.2E-05	1.5 mrem	< 1 %
Child	Liver**	Fish Ingestion	1.5E-07		
		Recreation	0.0E+00		
		Water Ingestion	1.2E-05		
		Total	1.2E-05	5 mrem	< 1 %
Child	Thyroid	Fish Ingestion	1.5E-07		
		Recreation	0.0E+00		
		Water Ingestion	1.2E-05		
		Total	1.2E-05	5 mrem	< 1 %

Average Riverflow past BFN (cubic feet per second): 27679

Population Doses

Total Body Dose 2.0E-04 man-rem

Maximum Organ Dose (organ) 2.0E-04 man-rem (liver**)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).

* Includes dose from abnormal releases.

**All organ doses are equal.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT

Table 5 (Continued)
Page 4 of 4
Doses from Liquid Effluents

Fourth Quarter*

Individual Doses (mrem)

Age Group	Organ	Dose Pathway	Dose	Quarterly Limit	Percent of Limit
Child	Total Body	Fish Ingestion	7.4E-07		
		Recreation	0.0E+00		
		Water Ingestion	6.0E-05		
		Total	6.1E-05	1.5 mrem	< 1 %
Child	Liver**	Fish Ingestion	7.4E-07		
		Recreation	0.0E+00		
		Water Ingestion	6.0E-05		
		Total	6.1E-05	5 mrem	< 1 %
Child	Thyroid	Fish Ingestion	7.4E-07		
		Recreation	0.0E+00		
		Water Ingestion	6.0E-05		
		Total	6.1E-05	5 mrem	< 1 %

Average Riverflow past BFN (cubic feet per second): 36693

Population Doses

Total Body Dose 9.8E-04 man-rem

Maximum Organ Dose (organ) 9.8E-04 man-rem (liver**)

Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).

* Includes dose from abnormal releases.

2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

RADIOLOGICAL IMPACT

Table 6
Page 1 of 1
Total Dose from Fuel Cycle

Dose	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Total Body or any Organ (except thyroid)					
Total body air submersion	1.4E-04	9.3E-04	1.4E-03	6.9E-04	
Critical organ dose (air)	1.2E-01	3.0E-02	3.4E-02	2.2E-02	
Total body dose (liquid)	1.1E-04	4.8E-05	1.2E-05	6.1E-05	
Maximum organ dose (liquid)	6.1E-05	4.8E-05	1.2E-05	6.1E-05	
Direct Radiation Dose	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Total	1.2E-01	3.1E-02	3.5E-02	2.3E-02	
Cumulative Total Dose (mrem) (Total body or any other organ)					2.1E-01
Annual Dose Limit (mrem)					2.5E+01
Percent of Limit					< 1 %
Thyroid Dose (mrem)					
Total body air submersion	1.4E-04	9.3E-04	1.4E-03	6.9E-04	
Thyroid dose (airborne)	1.3E-01	1.7E-02	2.1E-02	1.3E-02	
Total body dose (liquid)	1.1E-04	4.8E-05	1.2E-05	6.1E-05	
Thyroid dose (liquid)	2.0E-05	4.8E-05	1.2E-05	6.1E-05	
Direct Radiation Dose	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Total	1.3E-01	1.8E-02	2.2E-02	1.4E-02	
Cumulative Total Dose (Thyroid) mrem					1.8E-01
Annual Dose Limit (mrem)					7.5E+01
Percent of Limit					< 1 %

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 7A

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR GROUND LEVEL RELEASES

FIRST QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.143	0.000	0.000	0.000	0.143
NNE	0.000	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.048
NE	0.000	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.048
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	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.048
ESE	0.000	0.000	0.000	0.143	0.000	0.000	0.000	0.000	0.000	0.143
SE	0.000	0.000	0.238	0.571	0.190	0.095	0.000	0.000	0.000	1.094
SSE	0.000	0.000	0.238	0.571	0.000	0.000	0.000	0.000	0.000	0.809
S	0.000	0.000	0.190	0.523	0.000	0.000	0.000	0.000	0.000	0.714
SSW	0.000	0.000	0.000	0.238	0.095	0.000	0.000	0.000	0.000	0.333
SW	0.000	0.000	0.000	0.190	0.143	0.000	0.000	0.000	0.000	0.333
WSW	0.000	0.000	0.000	0.000	0.095	0.048	0.000	0.000	0.000	0.143
W	0.000	0.000	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.095
WNW	0.000	0.000	0.000	0.000	0.048	0.048	0.048	0.000	0.000	0.143
NW	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.048	0.000	0.095
NNW	0.000	0.000	0.000	0.000	0.000	0.095	0.048	0.000	0.000	0.143
SUBTOTAL	0.000	0.000	0.714	2.236	0.618	0.618	0.095	0.048	0.000	4.329

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS A	91
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	91
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2102
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: 2012/05/15

MEAN WIND SPEED = 5.48

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.048
NNE	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.048
NE	0.000	0.000	0.000	0.000	0.000	0.048	0.000	0.000	0.000	0.048
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	0.048	0.000	0.048	0.000	0.000	0.000	0.095
SE	0.000	0.000	0.143	0.428	0.095	0.000	0.000	0.000	0.000	0.666
SSE	0.000	0.000	0.000	0.143	0.000	0.000	0.000	0.000	0.000	0.143
S	0.000	0.000	0.000	0.190	0.000	0.000	0.000	0.000	0.000	0.190
SSW	0.000	0.000	0.095	0.048	0.000	0.000	0.000	0.000	0.000	0.143
SW	0.000	0.000	0.048	0.095	0.000	0.000	0.000	0.000	0.000	0.143
WSW	0.000	0.000	0.000	0.095	0.048	0.000	0.000	0.000	0.000	0.143
W	0.000	0.000	0.000	0.000	0.048	0.143	0.000	0.000	0.000	0.190
WNW	0.000	0.000	0.000	0.000	0.000	0.048	0.190	0.000	0.000	0.238
NW	0.000	0.000	0.000	0.000	0.048	0.000	0.095	0.048	0.000	0.190
NNW	0.000	0.000	0.000	0.000	0.000	0.048	0.143	0.000	0.000	0.190
SUBTOTAL	0.000	0.000	0.285	1.094	0.285	0.333	0.428	0.048	0.000	2.474

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS B	52
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	52
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2102
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: 2012/05/15

MEAN WIND SPEED = 7.06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C ($-1.7 < \Delta T \leq -1.5$ C/100 M)

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.048	0.095	0.190	0.000	0.000	0.000	0.333
NNE	0.000	0.000	0.000	0.000	0.143	0.190	0.000	0.000	0.000	0.333
NE	0.000	0.000	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.095
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	0.048	0.000	0.000	0.000	0.048
ESE	0.000	0.000	0.048	0.048	0.000	0.000	0.000	0.000	0.000	0.095
SE	0.000	0.000	0.143	0.285	0.048	0.000	0.000	0.000	0.000	0.476
SSE	0.000	0.000	0.095	0.095	0.000	0.000	0.000	0.000	0.000	0.190
S	0.000	0.000	0.095	0.190	0.000	0.000	0.000	0.000	0.000	0.285
SSW	0.000	0.000	0.048	0.048	0.000	0.000	0.000	0.000	0.000	0.095
SW	0.000	0.000	0.048	0.048	0.000	0.000	0.000	0.000	0.000	0.095
WSW	0.000	0.000	0.000	0.095	0.000	0.095	0.000	0.000	0.000	0.190
W	0.000	0.000	0.000	0.000	0.095	0.143	0.000	0.000	0.000	0.238
WNW	0.000	0.000	0.000	0.048	0.000	0.285	0.285	0.048	0.000	0.666
NW	0.000	0.000	0.000	0.000	0.048	0.238	0.048	0.095	0.000	0.428
NNW	0.000	0.000	0.000	0.000	0.000	0.190	0.238	0.000	0.000	0.428
SUBTOTAL	0.000	0.000	0.476	0.904	0.428	1.475	0.571	0.143	0.000	3.996

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS C	85
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	84
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2102
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: 2012/05/15

MEAN WIND SPEED = 8.35

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.095	0.714	0.333	0.333	0.143	0.000	0.000	1.618
NNE	0.000	0.000	0.095	0.428	0.381	0.523	0.095	0.000	0.000	1.522
NE	0.000	0.000	0.143	0.428	0.285	0.143	0.000	0.000	0.000	0.999
ENE	0.000	0.000	0.048	0.333	0.285	0.143	0.000	0.000	0.000	0.809
E	0.000	0.000	0.000	0.285	0.000	0.000	0.000	0.000	0.000	0.285
ESE	0.000	0.000	0.190	0.333	0.285	0.000	0.000	0.000	0.000	0.809
SE	0.000	0.000	0.381	0.714	0.333	0.000	0.000	0.000	0.000	1.427
SSE	0.000	0.000	0.523	0.190	0.048	0.048	0.000	0.000	0.000	0.809
S	0.000	0.000	0.618	0.238	0.095	0.000	0.000	0.000	0.000	0.951
SSW	0.000	0.000	0.428	0.285	0.048	0.048	0.000	0.000	0.000	0.809
SW	0.000	0.000	0.190	0.095	0.000	0.048	0.000	0.000	0.000	0.333
WSW	0.000	0.048	0.238	0.428	0.523	0.285	0.000	0.000	0.000	1.522
W	0.000	0.000	0.095	0.333	0.238	1.094	0.190	0.000	0.000	1.951
WNW	0.000	0.000	0.143	0.143	0.761	0.951	0.904	0.143	0.000	3.045
NW	0.000	0.000	0.048	0.381	0.381	1.475	0.714	0.095	0.000	3.092
NNW	0.000	0.000	0.190	0.381	0.523	1.284	0.523	0.095	0.000	2.997
SUBTOTAL	0.000	0.048	3.425	5.709	4.520	6.375	2.569	0.333	0.000	22.978

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS D	485
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	483
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2102
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: 2012/05/15

MEAN WIND SPEED = 7.34

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E ($-0.5 < \Delta T \leq 1.5$ C/100 M)

BROWNS FERRY NUCLEAR PLANT

JAN 1, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	≥ 24.5	
N	0.000	0.000	0.856	0.428	0.381	0.143	0.048	0.000	0.000	1.855
NNE	0.000	0.048	0.761	0.761	0.476	0.143	0.000	0.000	0.000	2.188
NE	0.000	0.000	0.714	0.333	0.381	0.095	0.000	0.000	0.000	1.522
ENE	0.000	0.190	0.333	0.714	0.095	0.000	0.000	0.000	0.000	1.332
E	0.000	0.095	0.951	0.285	0.000	0.000	0.000	0.000	0.000	1.332
ESE	0.000	0.143	1.047	2.236	0.714	0.143	0.000	0.000	0.000	4.282
SE	0.000	0.143	1.332	1.094	0.381	0.190	0.000	0.000	0.000	3.140
SSE	0.000	0.333	2.093	0.428	0.000	0.095	0.000	0.000	0.000	2.950
S	0.000	0.238	0.904	1.237	0.714	0.571	0.000	0.000	0.000	3.663
SSW	0.000	0.048	0.714	0.571	0.618	0.714	0.000	0.000	0.000	2.664
SW	0.000	0.095	0.571	0.095	0.048	0.048	0.000	0.000	0.000	0.856
WSW	0.000	0.048	0.571	0.381	0.190	0.095	0.000	0.000	0.000	1.284
W	0.000	0.048	0.428	0.809	0.190	0.285	0.048	0.000	0.000	1.808
WNW	0.000	0.000	0.190	0.333	0.095	0.190	0.095	0.000	0.000	0.904
NW	0.000	0.048	0.381	0.714	0.571	1.475	0.618	0.000	0.000	3.806
NNW	0.000	0.000	0.285	0.618	0.523	0.714	0.333	0.000	0.000	2.474
SUBTOTAL	0.000	1.475	12.131	11.037	5.376	4.900	1.142	0.000	0.000	36.061

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS E	759
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	758
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2102
TOTAL HOURS CALM	0

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

DATE PRINTED: 2012/05/15

MEAN WIND SPEED = 4.90

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.904	0.571	0.000	0.048	0.000	0.000	0.000	1.522
NNE	0.000	0.048	0.571	0.571	0.333	0.048	0.048	0.000	0.000	1.618
NE	0.000	0.048	0.476	0.143	0.048	0.000	0.000	0.000	0.000	0.714
ENE	0.000	0.190	0.476	0.143	0.000	0.000	0.000	0.000	0.000	0.809
E	0.000	0.143	0.571	0.761	0.000	0.000	0.000	0.000	0.000	1.475
ESE	0.000	0.381	0.428	0.428	0.000	0.000	0.000	0.000	0.000	1.237
SE	0.000	0.333	1.713	0.428	0.095	0.000	0.000	0.000	0.000	2.569
SSE	0.000	0.190	2.617	0.381	0.000	0.000	0.000	0.000	0.000	3.187
S	0.000	0.238	1.665	0.761	0.714	0.285	0.000	0.000	0.000	3.663
SSW	0.000	0.048	0.285	0.333	0.285	0.285	0.000	0.000	0.000	1.237
SW	0.000	0.048	0.238	0.048	0.000	0.000	0.000	0.000	0.000	0.333
WSW	0.000	0.048	0.190	0.048	0.000	0.000	0.000	0.000	0.000	0.285
W	0.000	0.000	0.190	0.000	0.000	0.048	0.000	0.000	0.000	0.238
WNW	0.000	0.000	0.190	0.000	0.000	0.000	0.000	0.000	0.000	0.190
NW	0.000	0.000	0.285	0.095	0.000	0.000	0.000	0.000	0.000	0.381
NNW	0.000	0.000	0.714	0.523	0.143	0.000	0.000	0.000	0.000	1.380
SUBTOTAL	0.000	1.713	11.513	5.233	1.618	0.714	0.048	0.000	0.000	20.837

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS F	438
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	438
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2102
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: 2012/05/15

MEAN WIND SPEED = 3.32

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.005	0.238	0.618	0.428	0.000	0.000	0.000	0.000	0.000	1.290
NNE	0.003	0.095	0.381	0.048	0.000	0.190	0.048	0.000	0.000	0.764
NE	0.001	0.190	0.048	0.095	0.095	0.048	0.000	0.000	0.000	0.477
ENE	0.002	0.095	0.238	0.000	0.000	0.000	0.000	0.000	0.000	0.335
E	0.002	0.238	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.287
ESE	0.004	0.428	0.285	0.000	0.000	0.000	0.000	0.000	0.000	0.718
SE	0.006	0.523	0.428	0.000	0.000	0.000	0.000	0.000	0.000	0.957
SSE	0.015	0.571	2.046	0.143	0.000	0.000	0.000	0.000	0.000	2.775
S	0.007	0.285	0.904	0.095	0.000	0.000	0.000	0.000	0.000	1.292
SSW	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.048
SW	0.000	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.048
WSW	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048
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	0.001	0.095	0.143	0.048	0.000	0.000	0.000	0.000	0.000	0.287
SUBTOTAL	0.048	2.807	5.233	0.856	0.095	0.238	0.048	0.000	0.000	9.324

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS G	197
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	196
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2102
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: 2012/05/15

MEAN WIND SPEED = 2.31

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 7B

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR GROUND LEVEL RELEASES

SECOND QUARTER

2012 BROWNS FERRY NUCLEAR PLANT UNITS 1, 2, AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.275	0.505	0.000	0.000	0.000	0.780
NNE	0.000	0.000	0.000	0.000	0.275	0.550	0.000	0.000	0.000	0.826
NE	0.000	0.000	0.000	0.000	0.046	0.229	0.000	0.000	0.000	0.275
ENE	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.092
E	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.000	0.138	0.459	0.183	0.000	0.000	0.000	0.000	0.780
SE	0.000	0.000	0.780	1.835	0.000	0.000	0.000	0.000	0.000	2.615
SSE	0.000	0.000	1.422	1.284	0.000	0.000	0.000	0.000	0.000	2.706
S	0.000	0.000	1.743	0.734	0.000	0.000	0.000	0.000	0.000	2.477
SSW	0.000	0.000	0.780	0.642	0.000	0.000	0.000	0.000	0.000	1.422
SW	0.000	0.000	0.046	0.550	0.000	0.000	0.000	0.000	0.000	0.596
WSW	0.000	0.000	0.000	0.505	0.092	0.000	0.000	0.000	0.000	0.596
W	0.000	0.000	0.000	0.550	0.092	0.092	0.000	0.000	0.000	0.734
WNW	0.000	0.000	0.000	0.092	0.183	0.092	0.046	0.000	0.000	0.413
NW	0.000	0.000	0.000	0.000	0.092	0.367	0.413	0.000	0.000	0.872
NNW	0.000	0.000	0.000	0.000	0.229	0.688	0.229	0.000	0.000	1.147
SUBTOTAL	0.000	0.000	5.000	6.697	1.468	2.523	0.688	0.000	0.000	16.376

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS A	357
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	357
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 5.34

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.046	0.000	0.229	0.321	0.000	0.000	0.000	0.596
NNE	0.000	0.000	0.000	0.000	0.138	0.138	0.000	0.000	0.000	0.275
NE	0.000	0.000	0.000	0.046	0.138	0.138	0.000	0.000	0.000	0.321
ENE	0.000	0.000	0.000	0.000	0.092	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	0.459	0.046	0.000	0.000	0.000	0.000	0.505
SE	0.000	0.000	0.275	0.092	0.000	0.000	0.000	0.000	0.000	0.367
SSE	0.000	0.000	0.367	0.046	0.000	0.000	0.000	0.000	0.000	0.413
S	0.000	0.000	0.367	0.138	0.000	0.000	0.000	0.000	0.000	0.505
SSW	0.000	0.000	0.275	0.138	0.000	0.000	0.000	0.000	0.000	0.413
SW	0.000	0.000	0.092	0.092	0.000	0.000	0.000	0.000	0.000	0.183
WSW	0.000	0.000	0.046	0.183	0.092	0.000	0.000	0.000	0.000	0.321
W	0.000	0.000	0.046	0.138	0.046	0.000	0.000	0.000	0.000	0.229
WNW	0.000	0.000	0.000	0.138	0.138	0.092	0.000	0.000	0.000	0.367
NW	0.000	0.000	0.000	0.000	0.183	0.229	0.138	0.000	0.000	0.550
NNW	0.000	0.000	0.000	0.000	0.000	0.183	0.046	0.000	0.000	0.229
SUBTOTAL	0.000	0.000	1.514	1.468	1.101	1.101	0.183	0.000	0.000	5.367

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS B	117
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	117
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 5.65

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.183	0.092	0.092	0.000	0.000	0.000	0.367
NNE	0.000	0.000	0.000	0.046	0.138	0.092	0.000	0.000	0.000	0.275
NE	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.092
ENE	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.092
E	0.000	0.000	0.046	0.046	0.046	0.000	0.000	0.000	0.000	0.138
ESE	0.000	0.000	0.046	0.229	0.092	0.000	0.000	0.000	0.000	0.367
SE	0.000	0.000	0.459	0.046	0.000	0.000	0.000	0.000	0.000	0.505
SSE	0.000	0.000	0.321	0.000	0.000	0.000	0.000	0.000	0.000	0.321
S	0.000	0.000	0.505	0.092	0.000	0.000	0.000	0.000	0.000	0.596
SSW	0.000	0.000	0.229	0.138	0.000	0.000	0.000	0.000	0.000	0.367
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	0.138	0.138	0.000	0.000	0.000	0.000	0.000	0.275
W	0.000	0.000	0.092	0.183	0.046	0.000	0.000	0.000	0.000	0.321
WNW	0.000	0.000	0.000	0.092	0.092	0.229	0.000	0.000	0.000	0.413
NW	0.000	0.000	0.000	0.000	0.092	0.138	0.138	0.000	0.000	0.367
NNW	0.000	0.000	0.000	0.092	0.046	0.183	0.000	0.000	0.000	0.321
SUBTOTAL	0.000	0.000	2.156	1.422	0.688	0.734	0.138	0.000	0.000	5.138

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS C	112
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	112
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 4.92

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.092	0.642	0.734	0.459	0.046	0.000	0.000	1.972
NNE	0.000	0.000	0.092	0.505	0.367	0.275	0.000	0.000	0.000	1.239
NE	0.000	0.000	0.183	0.183	0.367	0.046	0.000	0.000	0.000	0.780
ENE	0.000	0.000	0.046	0.000	0.138	0.000	0.000	0.000	0.000	0.183
E	0.000	0.046	0.275	0.642	0.092	0.000	0.000	0.000	0.000	1.055
ESE	0.000	0.092	0.780	1.284	0.092	0.046	0.000	0.000	0.000	2.294
SE	0.000	0.000	0.826	0.000	0.000	0.000	0.000	0.000	0.000	0.826
SSE	0.000	0.046	1.284	0.092	0.000	0.000	0.000	0.000	0.000	1.422
S	0.000	0.000	0.550	0.092	0.000	0.000	0.000	0.000	0.000	0.642
SSW	0.000	0.046	0.780	0.321	0.000	0.000	0.000	0.000	0.000	1.147
SW	0.000	0.092	0.596	0.183	0.000	0.000	0.000	0.000	0.000	0.872
WSW	0.000	0.000	1.101	0.321	0.229	0.046	0.000	0.000	0.000	1.697
W	0.000	0.046	0.413	0.872	0.459	0.229	0.000	0.000	0.000	2.018
WNW	0.000	0.000	0.229	0.550	0.780	1.101	0.000	0.000	0.000	2.661
NW	0.000	0.000	0.138	0.596	0.642	0.963	0.092	0.000	0.000	2.431
NNW	0.000	0.000	0.275	0.734	0.688	0.780	0.046	0.000	0.000	2.523
SUBTOTAL	0.000	0.367	7.661	7.018	4.587	3.945	0.183	0.000	0.000	23.761

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS D	518
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	518
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 5.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.046	1.284	0.459	0.413	0.092	0.000	0.000	0.000	2.294
NNE	0.000	0.046	0.596	0.688	0.550	0.367	0.000	0.000	0.000	2.248
NE	0.000	0.138	0.275	0.321	0.275	0.183	0.000	0.000	0.000	1.193
ENE	0.000	0.183	0.688	0.183	0.000	0.000	0.000	0.000	0.000	1.055
E	0.000	0.229	1.606	0.917	0.092	0.000	0.000	0.000	0.000	2.844
ESE	0.000	0.275	1.284	1.055	0.275	0.046	0.000	0.000	0.000	2.936
SE	0.000	0.229	0.642	0.000	0.000	0.000	0.000	0.000	0.000	0.872
SSE	0.000	0.275	0.963	0.000	0.000	0.000	0.000	0.000	0.000	1.239
S	0.000	0.138	1.376	0.046	0.000	0.000	0.000	0.000	0.000	1.560
SSW	0.000	0.092	1.376	0.321	0.000	0.000	0.000	0.000	0.000	1.789
SW	0.000	0.046	0.459	0.046	0.000	0.000	0.000	0.000	0.000	0.550
WSW	0.000	0.000	0.734	0.046	0.046	0.000	0.000	0.000	0.000	0.826
W	0.000	0.000	0.917	0.917	0.275	0.046	0.000	0.000	0.000	2.156
WNW	0.000	0.046	0.413	0.229	0.092	0.046	0.000	0.000	0.000	0.826
NW	0.000	0.092	0.046	0.275	0.138	0.183	0.000	0.000	0.000	0.734
NNW	0.000	0.000	0.642	0.917	0.183	0.367	0.000	0.000	0.000	2.110
SUBTOTAL	0.000	1.835	13.303	6.422	2.339	1.330	0.000	0.000	0.000	25.229

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS E	550
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	550
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 3.50

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.183	1.422	0.550	0.046	0.000	0.000	0.000	0.000	2.202
NNE	0.000	0.000	0.963	0.963	0.046	0.000	0.000	0.000	0.000	1.972
NE	0.000	0.367	0.688	0.275	0.000	0.000	0.000	0.000	0.000	1.330
ENE	0.000	0.550	0.826	0.138	0.000	0.000	0.000	0.000	0.000	1.514
E	0.000	0.367	1.284	0.459	0.000	0.000	0.000	0.000	0.000	2.110
ESE	0.000	0.183	0.688	0.046	0.000	0.000	0.000	0.000	0.000	0.917
SE	0.000	0.138	0.229	0.000	0.000	0.000	0.000	0.000	0.000	0.367
SSE	0.000	0.138	0.183	0.000	0.000	0.000	0.000	0.000	0.000	0.321
S	0.000	0.046	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.183
SSW	0.000	0.046	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.138
SW	0.000	0.092	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.229
WSW	0.000	0.092	0.505	0.000	0.000	0.000	0.000	0.000	0.000	0.596
W	0.000	0.046	0.229	0.183	0.000	0.000	0.000	0.000	0.000	0.459
WNW	0.000	0.046	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.183
NW	0.000	0.092	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.183
NNW	0.000	0.275	0.505	0.138	0.138	0.000	0.000	0.000	0.000	1.055
SUBTOTAL	0.000	2.661	8.119	2.752	0.229	0.000	0.000	0.000	0.000	13.761

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS F	300
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	300
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 2.52

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.016	1.284	1.881	0.734	0.000	0.000	0.000	0.000	0.000	3.915
NNE	0.007	0.321	1.009	0.275	0.000	0.000	0.000	0.000	0.000	1.612
NE	0.006	0.596	0.688	0.046	0.000	0.000	0.000	0.000	0.000	1.337
ENE	0.005	0.275	0.688	0.046	0.000	0.000	0.000	0.000	0.000	1.014
E	0.002	0.275	0.183	0.092	0.000	0.000	0.000	0.000	0.000	0.553
ESE	0.001	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.138
SE	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SSE	0.001	0.046	0.138	0.000	0.000	0.000	0.000	0.000	0.000	0.184
S	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.092
SSW	0.001	0.092	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.138
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.046	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	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
NW	0.001	0.183	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.231
NNW	0.005	0.413	0.596	0.000	0.000	0.000	0.000	0.000	0.000	1.014
SUBTOTAL	0.046	3.807	5.275	1.239	0.000	0.000	0.000	0.000	0.000	10.367

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS G	226
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	226
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 2.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 7C

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR GROUND LEVEL RELEASES

THIRD QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.053	0.053	0.000	0.000	0.000	0.106
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	0.053	0.000	0.053	0.000	0.000	0.106
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	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.053
ESE	0.000	0.000	0.106	0.690	0.053	0.000	0.000	0.000	0.000	0.850
SE	0.000	0.000	0.797	0.903	0.000	0.000	0.000	0.000	0.000	1.699
SSE	0.000	0.000	1.328	0.584	0.000	0.000	0.000	0.000	0.000	1.912
S	0.000	0.000	1.168	0.478	0.000	0.000	0.000	0.000	0.000	1.646
SSW	0.000	0.000	1.753	0.850	0.000	0.000	0.000	0.000	0.000	2.602
SW	0.000	0.000	0.372	0.637	0.000	0.000	0.000	0.000	0.000	1.009
WSW	0.000	0.000	0.000	0.584	0.053	0.000	0.000	0.000	0.000	0.637
W	0.000	0.000	0.053	0.690	0.903	0.266	0.000	0.000	0.000	1.912
WNW	0.000	0.000	0.000	0.159	0.106	0.584	0.106	0.000	0.000	0.956
NW	0.000	0.000	0.000	0.000	0.053	0.159	0.159	0.000	0.000	0.372
NNW	0.000	0.000	0.000	0.000	0.053	0.106	0.053	0.000	0.000	0.212
SUBTOTAL	0.000	0.000	5.629	5.576	1.328	1.168	0.372	0.000	0.000	14.073

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1884
TOTAL HOURS OF STABILITY CLASS A	266
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	265
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1883
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: 2012/11/19

MEAN WIND SPEED = 4.56

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.053	0.159	0.106	0.000	0.000	0.000	0.319
NNE	0.000	0.000	0.000	0.053	0.159	0.106	0.000	0.000	0.000	0.319
NE	0.000	0.000	0.000	0.053	0.053	0.000	0.000	0.000	0.000	0.106
ENE	0.000	0.000	0.000	0.106	0.000	0.000	0.000	0.000	0.000	0.106
E	0.000	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.053
ESE	0.000	0.000	0.106	0.266	0.000	0.000	0.000	0.000	0.000	0.372
SE	0.000	0.000	0.372	0.053	0.000	0.000	0.000	0.000	0.000	0.425
SSE	0.000	0.000	0.956	0.053	0.000	0.000	0.000	0.000	0.000	1.009
S	0.000	0.000	0.319	0.000	0.000	0.000	0.000	0.000	0.000	0.319
SSW	0.000	0.000	0.797	0.053	0.000	0.000	0.000	0.000	0.000	0.850
SW	0.000	0.000	0.159	0.212	0.000	0.000	0.000	0.000	0.000	0.372
WSW	0.000	0.000	0.159	0.266	0.000	0.000	0.000	0.000	0.000	0.425
W	0.000	0.000	0.000	0.478	0.319	0.053	0.000	0.000	0.000	0.850
WNW	0.000	0.000	0.000	0.053	0.266	0.053	0.000	0.000	0.000	0.372
NW	0.000	0.000	0.000	0.000	0.106	0.425	0.053	0.000	0.000	0.584
NNW	0.000	0.000	0.000	0.159	0.106	0.159	0.000	0.000	0.000	0.425
SUBTOTAL	0.000	0.000	2.921	1.859	1.168	0.903	0.053	0.000	0.000	6.904

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1884
TOTAL HOURS OF STABILITY CLASS B	130
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	130
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1883
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: 2012/11/19

MEAN WIND SPEED = 4.75

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.159	0.212	0.000	0.000	0.000	0.000	0.372
NNE	0.000	0.000	0.053	0.053	0.053	0.000	0.000	0.000	0.000	0.159
NE	0.000	0.000	0.000	0.000	0.000	0.053	0.000	0.000	0.000	0.053
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	0.053	0.000	0.000	0.000	0.000	0.000	0.053
ESE	0.000	0.000	0.053	0.053	0.000	0.000	0.000	0.000	0.000	0.106
SE	0.000	0.000	0.266	0.053	0.000	0.000	0.000	0.000	0.000	0.319
SSE	0.000	0.000	0.478	0.000	0.000	0.000	0.000	0.000	0.000	0.478
S	0.000	0.000	0.637	0.053	0.000	0.000	0.000	0.000	0.000	0.690
SSW	0.000	0.000	0.531	0.053	0.000	0.000	0.000	0.000	0.000	0.584
SW	0.000	0.000	0.319	0.053	0.000	0.000	0.000	0.000	0.000	0.372
WSW	0.000	0.000	0.106	0.159	0.000	0.000	0.000	0.000	0.000	0.266
W	0.000	0.000	0.159	0.637	0.159	0.053	0.000	0.000	0.000	1.009
WNW	0.000	0.000	0.000	0.106	0.266	0.053	0.000	0.000	0.000	0.425
NW	0.000	0.000	0.000	0.266	0.159	0.212	0.000	0.000	0.000	0.637
NNW	0.000	0.000	0.000	0.053	0.106	0.053	0.000	0.000	0.000	0.212
SUBTOTAL	0.000	0.000	2.602	1.753	0.956	0.425	0.000	0.000	0.000	5.736

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1884
TOTAL HOURS OF STABILITY CLASS C	108
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	108
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1883
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: 2012/11/19

MEAN WIND SPEED = 4.38

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.266	0.425	0.106	0.000	0.000	0.000	0.000	0.797
NNE	0.000	0.000	0.319	0.372	0.319	0.053	0.053	0.000	0.000	1.115
NE	0.000	0.000	0.478	0.743	0.106	0.053	0.000	0.000	0.000	1.381
ENE	0.000	0.000	0.159	0.478	0.000	0.106	0.000	0.000	0.000	0.743
E	0.000	0.000	0.319	0.743	0.319	0.053	0.000	0.000	0.000	1.434
ESE	0.000	0.000	1.540	1.699	0.690	0.159	0.000	0.000	0.000	4.089
SE	0.000	0.053	1.593	0.319	0.000	0.000	0.000	0.000	0.000	1.965
SSE	0.000	0.000	1.381	0.053	0.000	0.000	0.000	0.000	0.000	1.434
S	0.000	0.053	2.602	0.053	0.000	0.000	0.000	0.000	0.000	2.708
SSW	0.000	0.053	2.921	0.159	0.000	0.000	0.000	0.000	0.000	3.133
SW	0.000	0.106	1.328	0.000	0.053	0.000	0.000	0.000	0.000	1.487
WSW	0.000	0.000	1.328	0.956	0.000	0.000	0.000	0.000	0.000	2.284
W	0.000	0.053	0.266	1.328	0.478	0.053	0.000	0.000	0.000	2.177
WNW	0.000	0.000	0.106	0.478	0.266	0.212	0.000	0.000	0.000	1.062
NW	0.000	0.000	0.212	0.053	0.053	0.266	0.000	0.000	0.000	0.584
NNW	0.000	0.000	0.266	0.319	0.319	0.212	0.000	0.000	0.000	1.115
SUBTOTAL	0.000	0.319	15.082	8.178	2.708	1.168	0.053	0.000	0.000	27.509

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1884
TOTAL HOURS OF STABILITY CLASS D	518
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	518
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1883
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: 2012/11/19

MEAN WIND SPEED = 3.68

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.053	0.850	0.584	0.000	0.000	0.000	0.000	0.000	1.487
NNE	0.000	0.053	0.584	0.478	0.319	0.159	0.000	0.000	0.000	1.593
NE	0.000	0.053	0.850	0.425	0.106	0.159	0.000	0.000	0.000	1.593
ENE	0.000	0.159	1.009	0.690	0.053	0.000	0.000	0.000	0.000	1.912
E	0.000	0.425	1.806	1.699	0.053	0.053	0.000	0.000	0.000	4.036
ESE	0.000	0.212	1.434	0.637	0.053	0.000	0.000	0.000	0.000	2.337
SE	0.000	0.425	0.743	0.000	0.000	0.000	0.000	0.000	0.000	1.168
SSE	0.000	0.106	0.797	0.053	0.000	0.000	0.000	0.000	0.000	0.956
S	0.000	0.637	1.275	0.000	0.000	0.000	0.000	0.000	0.000	1.912
SSW	0.000	0.319	1.646	0.000	0.000	0.000	0.000	0.000	0.000	1.965
SW	0.000	0.212	0.956	0.000	0.000	0.000	0.000	0.000	0.000	1.168
WSW	0.000	0.159	1.062	0.372	0.000	0.000	0.000	0.000	0.000	1.593
W	0.000	0.000	1.062	0.690	0.000	0.000	0.000	0.000	0.000	1.753
WNW	0.000	0.106	0.319	0.266	0.000	0.053	0.000	0.000	0.000	0.743
NW	0.000	0.000	0.106	0.266	0.106	0.106	0.000	0.000	0.000	0.584
NNW	0.000	0.000	0.319	0.584	0.106	0.053	0.000	0.000	0.000	1.062
SUBTOTAL	0.000	2.921	14.817	6.745	0.797	0.584	0.000	0.000	0.000	25.863

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1884
TOTAL HOURS OF STABILITY CLASS E	487
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	487
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1883
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: 2012/11/19

MEAN WIND SPEED = 3.02

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.008	0.319	0.850	0.266	0.000	0.000	0.000	0.000	0.000	1.441
NNE	0.008	0.425	0.743	0.266	0.000	0.000	0.000	0.000	0.000	1.441
NE	0.007	0.266	0.797	0.212	0.000	0.053	0.000	0.000	0.000	1.335
ENE	0.010	0.159	1.434	0.531	0.000	0.000	0.000	0.000	0.000	2.135
E	0.009	0.212	1.168	0.690	0.000	0.000	0.000	0.000	0.000	2.080
ESE	0.004	0.159	0.425	0.000	0.000	0.000	0.000	0.000	0.000	0.588
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.001	0.053	0.106	0.000	0.000	0.000	0.000	0.000	0.000	0.160
S	0.001	0.000	0.159	0.000	0.000	0.000	0.000	0.000	0.000	0.160
SSW	0.001	0.053	0.159	0.000	0.000	0.000	0.000	0.000	0.000	0.214
SW	0.001	0.000	0.159	0.000	0.000	0.000	0.000	0.000	0.000	0.160
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	0.053	0.000	0.000	0.000	0.000	0.000	0.053
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.001	0.106	0.106	0.000	0.000	0.000	0.000	0.000	0.000	0.214
NNW	0.002	0.000	0.372	0.319	0.000	0.000	0.000	0.000	0.000	0.693
SUBTOTAL	0.053	1.753	6.479	2.337	0.000	0.053	0.000	0.000	0.000	10.674

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1884
TOTAL HOURS OF STABILITY CLASS F	201
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	201
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1883
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: 2012/11/19

MEAN WIND SPEED = 2.62

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.584	1.115	1.062	0.000	0.000	0.000	0.000	0.000	2.762
NNE	0.000	0.743	0.743	0.106	0.000	0.000	0.000	0.000	0.000	1.593
NE	0.000	0.319	0.743	0.053	0.000	0.000	0.000	0.000	0.000	1.115
ENE	0.000	0.159	0.584	0.212	0.053	0.000	0.000	0.000	0.000	1.009
E	0.000	0.053	0.319	0.106	0.000	0.000	0.000	0.000	0.000	0.478
ESE	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053
SE	0.000	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.053
SSE	0.000	0.053	0.159	0.000	0.000	0.000	0.000	0.000	0.000	0.212
S	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053
SSW	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053
SW	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053
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	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053
NW	0.000	0.106	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.106
NNW	0.000	0.797	0.743	0.106	0.000	0.000	0.000	0.000	0.000	1.646
SUBTOTAL	0.000	3.080	4.461	1.646	0.053	0.000	0.000	0.000	0.000	9.241

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1884
TOTAL HOURS OF STABILITY CLASS G	174
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	174
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1883
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: 2012/11/19

MEAN WIND SPEED = 2.19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 7D

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR GROUND LEVEL RELEASES

FOURTH QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.142	0.142	0.000	0.000	0.000	0.284
NNE	0.000	0.000	0.000	0.000	0.000	0.189	0.000	0.000	0.000	0.189
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	0.047	0.332	0.000	0.000	0.000	0.000	0.379
E	0.000	0.000	0.000	0.237	0.000	0.000	0.000	0.000	0.000	0.237
ESE	0.000	0.000	0.000	0.332	0.000	0.000	0.000	0.000	0.000	0.332
SE	0.000	0.000	0.095	0.332	0.000	0.000	0.000	0.000	0.000	0.426
SSE	0.000	0.000	0.379	0.047	0.000	0.000	0.000	0.000	0.000	0.426
S	0.000	0.000	0.568	0.189	0.000	0.000	0.000	0.000	0.000	0.758
SSW	0.000	0.000	0.284	0.237	0.000	0.000	0.000	0.000	0.000	0.521
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	0.047	0.000	0.000	0.000	0.047
W	0.000	0.000	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.095
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.047
NW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.095	0.000	0.142
NNW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
SUBTOTAL	0.000	0.000	1.326	1.421	0.474	0.568	0.047	0.095	0.000	3.932

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS A	83
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	83
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 5.32

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.142	0.000	0.000	0.000	0.142
NNE	0.000	0.000	0.047	0.000	0.284	0.189	0.000	0.000	0.000	0.521
NE	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.095
ENE	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.000	0.000	0.095
E	0.000	0.000	0.000	0.095	0.047	0.000	0.000	0.000	0.000	0.142
ESE	0.000	0.000	0.047	0.237	0.047	0.000	0.000	0.000	0.000	0.332
SE	0.000	0.000	0.284	0.000	0.000	0.000	0.000	0.000	0.000	0.284
SSE	0.000	0.000	0.189	0.000	0.000	0.000	0.000	0.000	0.000	0.189
S	0.000	0.000	0.095	0.047	0.000	0.000	0.000	0.000	0.000	0.142
SSW	0.000	0.000	0.189	0.142	0.000	0.000	0.000	0.000	0.000	0.332
SW	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.047
WSW	0.000	0.000	0.000	0.095	0.000	0.047	0.000	0.000	0.000	0.142
W	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
WNW	0.000	0.000	0.000	0.000	0.000	0.095	0.095	0.095	0.000	0.284
NW	0.000	0.000	0.000	0.000	0.000	0.379	0.189	0.047	0.000	0.616
NNW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
SUBTOTAL	0.000	0.000	0.900	0.711	0.426	0.947	0.332	0.142	0.000	3.458

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS B	73
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	73
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 7.21

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.095	0.095	0.237	0.284	0.000	0.000	0.000	0.711
NNE	0.000	0.000	0.000	0.000	0.237	0.142	0.000	0.000	0.000	0.379
NE	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.000	0.095
ENE	0.000	0.000	0.000	0.142	0.000	0.000	0.000	0.000	0.000	0.142
E	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.095
ESE	0.000	0.000	0.095	0.047	0.000	0.000	0.000	0.000	0.000	0.142
SE	0.000	0.000	0.426	0.047	0.000	0.000	0.000	0.000	0.000	0.474
SSE	0.000	0.000	0.568	0.047	0.000	0.000	0.000	0.000	0.000	0.616
S	0.000	0.000	0.142	0.047	0.000	0.000	0.000	0.000	0.000	0.189
SSW	0.000	0.000	0.095	0.095	0.000	0.000	0.000	0.000	0.000	0.189
SW	0.000	0.000	0.095	0.047	0.047	0.000	0.000	0.000	0.000	0.189
WSW	0.000	0.000	0.000	0.095	0.000	0.047	0.000	0.000	0.000	0.142
W	0.000	0.000	0.047	0.095	0.095	0.000	0.000	0.000	0.000	0.237
WNW	0.000	0.000	0.000	0.095	0.000	0.237	0.047	0.000	0.000	0.379
NW	0.000	0.000	0.000	0.047	0.047	0.521	0.095	0.047	0.000	0.758
NNW	0.000	0.000	0.000	0.047	0.047	0.474	0.000	0.000	0.000	0.568
SUBTOTAL	0.000	0.000	1.563	1.042	0.758	1.753	0.142	0.047	0.000	5.306

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS C	112
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	112
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 6.23

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.047	0.805	0.663	0.758	0.000	0.000	0.000	2.274
NNE	0.000	0.000	0.142	0.805	0.805	0.568	0.000	0.000	0.000	2.321
NE	0.000	0.000	0.237	0.379	0.426	0.805	0.000	0.000	0.000	1.847
ENE	0.000	0.047	0.142	0.284	0.095	0.000	0.000	0.000	0.000	0.568
E	0.000	0.000	0.284	0.474	0.000	0.000	0.000	0.000	0.000	0.758
ESE	0.000	0.000	0.568	0.426	0.095	0.000	0.000	0.000	0.000	1.090
SE	0.000	0.047	0.758	0.426	0.000	0.000	0.000	0.000	0.000	1.232
SSE	0.000	0.000	0.758	0.189	0.000	0.000	0.000	0.000	0.000	0.947
S	0.000	0.000	0.474	0.474	0.095	0.000	0.000	0.000	0.000	1.042
SSW	0.000	0.000	0.568	0.237	0.095	0.000	0.000	0.000	0.000	0.900
SW	0.000	0.047	0.426	0.142	0.047	0.000	0.000	0.000	0.000	0.663
WSW	0.000	0.000	0.237	0.474	0.095	0.047	0.000	0.000	0.000	0.853
W	0.000	0.000	0.379	0.853	0.332	0.379	0.332	0.047	0.000	2.321
WNW	0.000	0.000	0.142	0.616	0.379	1.184	0.805	0.568	0.000	3.695
NW	0.000	0.000	0.237	0.284	0.521	1.611	1.516	0.142	0.000	4.311
NNW	0.000	0.000	0.142	0.332	1.184	1.184	0.095	0.000	0.000	2.937
SUBTOTAL	0.000	0.142	5.542	7.200	4.832	6.537	2.748	0.758	0.000	27.759

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS D	586
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	586
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 7.06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.474	0.663	0.189	0.095	0.000	0.000	0.000	1.421
NNE	0.000	0.047	0.474	0.426	0.379	0.332	0.000	0.000	0.000	1.658
NE	0.000	0.047	0.474	0.758	0.332	0.284	0.095	0.000	0.000	1.990
ENE	0.000	0.047	0.663	0.521	0.189	0.142	0.000	0.000	0.000	1.563
E	0.000	0.142	1.090	0.379	0.047	0.000	0.000	0.000	0.000	1.658
ESE	0.000	0.095	0.900	0.758	0.189	0.142	0.000	0.000	0.000	2.084
SE	0.000	0.142	0.900	0.142	0.000	0.047	0.000	0.000	0.000	1.232
SSE	0.000	0.000	0.521	0.142	0.000	0.000	0.000	0.000	0.000	0.663
S	0.000	0.047	1.516	1.847	0.474	0.047	0.000	0.000	0.000	3.932
SSW	0.000	0.095	0.663	0.616	0.047	0.000	0.000	0.000	0.000	1.421
SW	0.000	0.047	0.568	0.237	0.095	0.000	0.000	0.000	0.000	0.947
WSW	0.000	0.047	0.616	0.237	0.142	0.000	0.000	0.000	0.000	1.042
W	0.000	0.000	0.332	0.332	0.237	0.047	0.000	0.000	0.000	0.947
WNW	0.000	0.047	0.189	0.332	0.142	0.237	0.047	0.000	0.000	0.995
NW	0.000	0.000	0.379	0.379	0.426	0.426	0.616	0.000	0.000	2.226
NNW	0.000	0.047	0.616	1.374	0.663	0.474	0.000	0.000	0.000	3.174
SUBTOTAL	0.000	0.853	10.374	9.143	3.553	2.274	0.758	0.000	0.000	26.954

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS E	569
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	569
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 4.49

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.189	1.184	1.326	0.142	0.000	0.000	0.000	0.000	2.842
NNE	0.000	0.095	0.853	1.090	0.332	0.047	0.000	0.000	0.000	2.416
NE	0.000	0.047	1.042	0.900	0.711	0.189	0.000	0.000	0.000	2.890
ENE	0.000	0.095	1.279	0.521	0.000	0.000	0.000	0.000	0.000	1.895
E	0.000	0.142	0.995	0.189	0.000	0.000	0.000	0.000	0.000	1.326
ESE	0.000	0.142	1.042	0.189	0.000	0.000	0.000	0.000	0.000	1.374
SE	0.000	0.284	0.853	0.000	0.000	0.000	0.000	0.000	0.000	1.137
SSE	0.000	0.142	0.521	0.189	0.000	0.000	0.000	0.000	0.000	0.853
S	0.000	0.095	0.568	0.474	0.000	0.000	0.000	0.000	0.000	1.137
SSW	0.000	0.000	0.095	0.095	0.000	0.000	0.000	0.000	0.000	0.189
SW	0.000	0.047	0.142	0.000	0.000	0.047	0.000	0.000	0.000	0.237
WSW	0.000	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.095
W	0.000	0.047	0.142	0.047	0.000	0.000	0.000	0.000	0.000	0.237
WNW	0.000	0.000	0.095	0.047	0.047	0.000	0.000	0.000	0.000	0.189
NW	0.000	0.000	0.284	0.095	0.047	0.047	0.000	0.000	0.000	0.474
NNW	0.000	0.047	0.900	0.711	0.237	0.000	0.000	0.000	0.000	1.895
SUBTOTAL	0.000	1.374	10.090	5.874	1.516	0.332	0.000	0.000	0.000	19.185

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS F	405
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	405
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 3.33

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.013	0.758	2.037	0.521	0.000	0.000	0.000	0.000	0.000	3.329
NNE	0.007	0.284	1.279	0.711	0.142	0.000	0.000	0.000	0.000	2.423
NE	0.007	0.379	1.090	0.758	0.284	0.189	0.000	0.000	0.000	2.707
ENE	0.004	0.237	0.521	0.095	0.000	0.000	0.000	0.000	0.000	0.856
E	0.002	0.047	0.332	0.000	0.000	0.000	0.000	0.000	0.000	0.381
ESE	0.002	0.095	0.237	0.000	0.000	0.000	0.000	0.000	0.000	0.333
SE	0.001	0.095	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.190
SSE	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.048
S	0.001	0.142	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.143
SSW	0.000	0.047	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.095
SW	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
WSW	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.095
W	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.001	0.189	0.095	0.095	0.000	0.000	0.000	0.000	0.000	0.380
NNW	0.009	0.426	1.421	0.379	0.095	0.000	0.000	0.000	0.000	2.330
SUBTOTAL	0.047	2.842	7.200	2.558	0.568	0.189	0.000	0.000	0.000	13.406

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS G	283
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	283
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 2.68

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 8A

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR SPLIT LEVEL RELEASES

(GROUND LEVEL RELEASE MODE AND ELEVATED RELEASE MODE)

FIRST QUARTER

2012 BROWNS FERRY NUCLEAR PLANT UNITS 1, 2, AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.025	0.000	0.000	0.000	0.025
NNE	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.009
NE	0.000	0.000	0.000	0.000	0.000	0.007	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	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.006
SE	0.000	0.000	0.000	0.048	0.032	0.038	0.000	0.000	0.000	0.118
SSE	0.000	0.000	0.005	0.082	0.000	0.000	0.000	0.000	0.000	0.087
S	0.000	0.000	0.006	0.051	0.000	0.000	0.000	0.000	0.000	0.058
SSW	0.000	0.000	0.000	0.029	0.017	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.000	0.021	0.028	0.000	0.000	0.000	0.000	0.049
WSW	0.000	0.000	0.000	0.000	0.014	0.009	0.000	0.000	0.000	0.023
W	0.000	0.000	0.000	0.000	0.000	0.017	0.000	0.000	0.000	0.017
WNW	0.000	0.000	0.000	0.000	0.000	0.007	0.010	0.000	0.000	0.017
NW	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.040	0.000	0.042
NNW	0.000	0.000	0.000	0.000	0.000	0.015	0.020	0.000	0.000	0.036
SUBTOTAL	0.000	0.000	0.011	0.237	0.093	0.126	0.030	0.040	0.000	0.538

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF GROUND LEVEL RELEASE	316.170
TOTAL HOURS OF STABILITY CLASS A	21.010
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A	11.310

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
NNE	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.006
NE	0.000	0.000	0.000	0.000	0.000	0.007	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	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.010
SE	0.000	0.000	0.000	0.014	0.015	0.000	0.000	0.000	0.000	0.029
SSE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
S	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.009
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	0.009	0.006	0.000	0.000	0.000	0.000	0.015
W	0.000	0.000	0.000	0.000	0.004	0.021	0.000	0.000	0.000	0.025
WNW	0.000	0.000	0.000	0.000	0.000	0.007	0.039	0.000	0.000	0.045
NW	0.000	0.000	0.000	0.000	0.004	0.000	0.032	0.042	0.000	0.078
NNW	0.000	0.000	0.000	0.000	0.000	0.008	0.041	0.000	0.000	0.049
SUBTOTAL	0.000	0.000	0.000	0.078	0.035	0.052	0.112	0.042	0.000	0.320

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF GROUND LEVEL RELEASE	316.170
TOTAL HOURS OF STABILITY CLASS B	19.790
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B	6.730

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.008	0.032	0.000	0.000	0.000	0.040
NNE	0.000	0.000	0.000	0.000	0.012	0.029	0.000	0.000	0.000	0.041
NE	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000	0.014
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	0.005	0.000	0.000	0.000	0.005
ESE	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
SE	0.000	0.000	0.000	0.014	0.018	0.000	0.000	0.000	0.000	0.032
SSE	0.000	0.000	0.004	0.006	0.000	0.000	0.000	0.000	0.000	0.010
S	0.000	0.000	0.000	0.025	0.000	0.000	0.000	0.000	0.000	0.025
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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.005	0.000	0.018	0.000	0.000	0.000	0.023
W	0.000	0.000	0.000	0.000	0.009	0.023	0.000	0.000	0.000	0.032
WNW	0.000	0.000	0.000	0.000	0.000	0.042	0.106	0.036	0.000	0.183
NW	0.000	0.000	0.000	0.000	0.005	0.037	0.010	0.082	0.000	0.134
NNW	0.000	0.000	0.000	0.000	0.000	0.028	0.074	0.000	0.000	0.102
SUBTOTAL	0.000	0.000	0.011	0.053	0.051	0.229	0.189	0.118	0.000	0.651

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF GROUND LEVEL RELEASE	316.170
TOTAL HOURS OF STABILITY CLASS C	56.880
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C	13.700

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.031	0.039	0.065	0.083	0.000	0.000	0.219
NNE	0.000	0.000	0.000	0.015	0.038	0.096	0.035	0.000	0.000	0.183
NE	0.000	0.000	0.000	0.008	0.025	0.017	0.000	0.000	0.000	0.050
ENE	0.000	0.000	0.000	0.008	0.022	0.019	0.000	0.000	0.000	0.049
E	0.000	0.000	0.000	0.016	0.000	0.000	0.000	0.000	0.000	0.016
ESE	0.000	0.000	0.009	0.039	0.059	0.000	0.000	0.000	0.000	0.107
SE	0.000	0.000	0.016	0.120	0.086	0.000	0.000	0.000	0.000	0.223
SSE	0.000	0.000	0.033	0.025	0.032	0.010	0.000	0.000	0.000	0.100
S	0.000	0.000	0.024	0.035	0.024	0.000	0.000	0.000	0.000	0.083
SSW	0.000	0.000	0.016	0.030	0.010	0.044	0.000	0.000	0.000	0.099
SW	0.000	0.000	0.003	0.009	0.000	0.012	0.000	0.000	0.000	0.025
WSW	0.000	0.000	0.000	0.027	0.075	0.056	0.000	0.000	0.000	0.158
W	0.000	0.000	0.002	0.010	0.031	0.188	0.056	0.000	0.000	0.287
WNW	0.000	0.000	0.000	0.000	0.052	0.141	0.350	0.128	0.000	0.670
NW	0.000	0.000	0.000	0.001	0.027	0.221	0.251	0.094	0.000	0.594
NNW	0.000	0.000	0.000	0.004	0.045	0.204	0.155	0.080	0.000	0.487
SUBTOTAL	0.000	0.000	0.103	0.379	0.566	1.071	0.929	0.301	0.000	3.349

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF GROUND LEVEL RELEASE	316.170
TOTAL HOURS OF STABILITY CLASS D	654.990
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D	70.430

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)						
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
N	0.000	0.000	0.012	0.043	0.065	0.047	0.020	0.000	0.000	0.186
NNE	0.000	0.003	0.019	0.072	0.069	0.023	0.000	0.000	0.000	0.186
NE	0.000	0.000	0.013	0.036	0.050	0.015	0.000	0.000	0.000	0.114
ENE	0.000	0.008	0.001	0.069	0.015	0.000	0.000	0.000	0.000	0.093
E	0.000	0.000	0.017	0.032	0.000	0.000	0.000	0.000	0.000	0.049
ESE	0.000	0.000	0.055	0.375	0.130	0.036	0.000	0.000	0.000	0.596
SE	0.000	0.000	0.147	0.281	0.094	0.107	0.000	0.000	0.000	0.629
SSE	0.000	0.000	0.297	0.147	0.000	0.045	0.000	0.000	0.000	0.488
S	0.000	0.008	0.083	0.297	0.256	0.492	0.000	0.000	0.000	1.135
SSW	0.000	0.000	0.033	0.088	0.134	0.437	0.000	0.000	0.000	0.692
SW	0.000	0.000	0.022	0.010	0.009	0.010	0.000	0.000	0.000	0.050
WSW	0.000	0.000	0.016	0.028	0.034	0.019	0.000	0.000	0.000	0.097
W	0.000	0.000	0.005	0.063	0.026	0.052	0.013	0.000	0.000	0.158
WNW	0.000	0.000	0.003	0.014	0.009	0.036	0.047	0.000	0.000	0.109
NW	0.000	0.000	0.005	0.057	0.078	0.264	0.194	0.000	0.000	0.597
NNW	0.000	0.000	0.005	0.037	0.074	0.130	0.107	0.000	0.000	0.353
SUBTOTAL	0.000	0.019	0.733	1.648	1.041	1.713	0.381	0.000	0.000	5.535

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF GROUND LEVEL RELEASE	316.170
TOTAL HOURS OF STABILITY CLASS E	924.810
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E	116.400

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

2012 BROWNS FERRY NUCLEAR PLANT UNITS 1, 2, AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.059	0.078	0.000	0.009	0.000	0.000	0.000	0.146
NNE	0.000	0.000	0.026	0.080	0.055	0.010	0.010	0.000	0.000	0.180
NE	0.000	0.001	0.015	0.016	0.007	0.000	0.000	0.000	0.000	0.039
ENE	0.000	0.014	0.014	0.015	0.000	0.000	0.000	0.000	0.000	0.043
E	0.000	0.008	0.030	0.111	0.000	0.000	0.000	0.000	0.000	0.149
ESE	0.000	0.019	0.037	0.070	0.000	0.000	0.000	0.000	0.000	0.125
SE	0.000	0.011	0.179	0.079	0.055	0.000	0.000	0.000	0.000	0.324
SSE	0.000	0.013	0.485	0.178	0.000	0.000	0.000	0.000	0.000	0.676
S	0.000	0.011	0.221	0.223	0.394	0.220	0.000	0.000	0.000	1.069
SSW	0.000	0.003	0.036	0.058	0.069	0.117	0.000	0.000	0.000	0.283
SW	0.000	0.003	0.014	0.009	0.000	0.000	0.000	0.000	0.000	0.026
WSW	0.000	0.001	0.010	0.004	0.000	0.000	0.000	0.000	0.000	0.015
W	0.000	0.000	0.010	0.000	0.000	0.009	0.000	0.000	0.000	0.019
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	0.010	0.000	0.000	0.000	0.000	0.000	0.011
NNW	0.000	0.000	0.031	0.064	0.022	0.000	0.000	0.000	0.000	0.117
SUBTOTAL	0.000	0.084	1.166	0.997	0.602	0.364	0.010	0.000	0.000	3.223

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF GROUND LEVEL RELEASE	316.170
TOTAL HOURS OF STABILITY CLASS F	368.900
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F	67.770

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.001	0.027	0.056	0.000	0.000	0.000	0.000	0.000	0.084
NNE	0.000	0.001	0.004	0.006	0.000	0.042	0.010	0.000	0.000	0.063
NE	0.000	0.002	0.000	0.010	0.012	0.008	0.000	0.000	0.000	0.032
ENE	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.011
E	0.000	0.029	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.031
ESE	0.000	0.046	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.091
SE	0.000	0.059	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.130
SSE	0.001	0.092	0.536	0.115	0.000	0.000	0.000	0.000	0.000	0.744
S	0.000	0.033	0.159	0.018	0.000	0.000	0.000	0.000	0.000	0.210
SSW	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002
WSW	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
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	0.002	0.007	0.000	0.000	0.000	0.000	0.000	0.010
SUBTOTAL	0.002	0.272	0.863	0.211	0.012	0.050	0.010	0.000	0.000	1.418

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF GROUND LEVEL RELEASE	316.170
TOTAL HOURS OF STABILITY CLASS G	56.620
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G	29.830

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	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	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.090	0.000	0.077	0.000	0.000	0.166
S	0.000	0.000	0.000	0.048	0.046	0.000	0.078	0.000	0.000	0.172
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	0.123	0.000	0.000	0.000	0.123
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	0.048	0.136	0.123	0.155	0.000	0.000	0.461

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF ELEVATED RELEASES	1786.830
TOTAL HOURS OF STABILITY CLASS A	21.010
TOTAL HOURS OF ELEVATED STABILITY CLASS A	9.700

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
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	0.039	0.000	0.000	0.039
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	0.091	0.127	0.000	0.000	0.000	0.218
SSE	0.000	0.000	0.000	0.000	0.000	0.081	0.039	0.000	0.000	0.120
S	0.000	0.000	0.000	0.000	0.000	0.042	0.039	0.000	0.000	0.082
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	0.039	0.000	0.000	0.079
WSW	0.000	0.000	0.000	0.000	0.000	0.042	0.000	0.000	0.000	0.042
W	0.000	0.000	0.000	0.000	0.000	0.040	0.000	0.000	0.000	0.040
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	0.091	0.373	0.156	0.000	0.000	0.621

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF ELEVATED RELEASES	1786.830
TOTAL HOURS OF STABILITY CLASS B	19.790
TOTAL HOURS OF ELEVATED STABILITY CLASS B	13.060

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.080	0.038	0.000	0.000	0.118
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.078	0.000	0.000	0.078
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	0.143	0.140	0.204	0.077	0.057	0.000	0.621
SSE	0.000	0.000	0.000	0.048	0.000	0.043	0.000	0.000	0.000	0.091
S	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.095
SSW	0.000	0.000	0.000	0.000	0.000	0.082	0.000	0.000	0.000	0.082
SW	0.000	0.000	0.000	0.190	0.000	0.000	0.077	0.000	0.000	0.267
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.000	0.000	0.039
W	0.000	0.000	0.000	0.000	0.000	0.204	0.000	0.000	0.000	0.204
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.190	0.022	0.000	0.212
NW	0.000	0.000	0.000	0.000	0.000	0.040	0.038	0.000	0.013	0.091
NNW	0.000	0.000	0.000	0.000	0.000	0.040	0.000	0.116	0.000	0.156
SUBTOTAL	0.000	0.000	0.000	0.476	0.140	0.693	0.536	0.195	0.013	2.053

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF ELEVATED RELEASES	1786.830
TOTAL HOURS OF STABILITY CLASS C	56.880
TOTAL HOURS OF ELEVATED STABILITY CLASS C	43.180

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.143	0.190	0.367	0.786	0.308	0.198	0.000	1.992
NNE	0.000	0.000	0.095	0.143	0.454	0.880	0.463	0.126	0.000	2.160
NE	0.000	0.000	0.000	0.285	0.364	0.675	0.000	0.000	0.000	1.324
ENE	0.000	0.000	0.048	0.238	0.229	0.214	0.000	0.000	0.000	0.728
E	0.000	0.000	0.000	0.190	0.090	0.126	0.000	0.000	0.000	0.407
ESE	0.000	0.000	0.048	0.095	0.092	0.295	0.000	0.000	0.000	0.529
SE	0.000	0.000	0.048	0.856	0.505	0.374	0.386	0.291	0.000	2.459
SSE	0.000	0.000	0.238	0.666	0.092	0.208	0.190	0.208	0.000	1.602
S	0.000	0.000	0.000	0.143	0.136	0.702	0.039	0.048	0.000	1.067
SSW	0.000	0.000	0.476	0.285	0.088	0.168	0.233	0.055	0.007	1.311
SW	0.000	0.000	0.190	0.238	0.228	0.336	0.078	0.050	0.000	1.120
WSW	0.000	0.000	0.095	0.333	0.271	0.750	0.422	0.000	0.000	1.870
W	0.000	0.048	0.190	0.285	0.414	0.702	0.696	0.096	0.000	2.431
WNW	0.000	0.000	0.095	0.238	0.410	1.332	0.690	0.402	0.015	3.183
NW	0.000	0.000	0.000	0.285	0.318	1.034	0.773	0.446	0.014	2.869
NNW	0.000	0.000	0.048	0.190	0.227	0.908	0.999	0.358	0.015	2.745
SUBTOTAL	0.000	0.048	1.712	4.660	4.284	9.490	5.274	2.278	0.051	27.796

TOTAL HOURS OF VALID OBSERVATIONS 2103.000
TOTAL HOURS OF ELEVATED RELEASES 1786.830
TOTAL HOURS OF STABILITY CLASS D 654.990
TOTAL HOURS OF ELEVATED STABILITY CLASS D 584.560

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

2012 BROWNS FERRY NUCLEAR PLANT UNITS 1, 2, AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.095	0.238	0.276	0.592	0.274	0.000	0.009	1.485
NNE	0.000	0.000	0.238	0.143	0.231	0.750	0.426	0.036	0.000	1.824
NE	0.000	0.000	0.095	0.333	0.318	1.166	0.197	0.000	0.000	2.109
ENE	0.000	0.000	0.000	0.190	0.232	0.292	0.000	0.000	0.000	0.714
E	0.000	0.000	0.143	0.285	0.232	0.466	0.000	0.000	0.000	1.126
ESE	0.000	0.095	0.048	0.380	0.369	1.065	0.118	0.000	0.000	2.076
SE	0.000	0.048	0.238	0.428	0.593	0.990	2.242	0.559	0.010	5.108
SSE	0.000	0.000	0.143	0.713	0.590	0.873	1.342	0.770	0.044	4.476
S	0.000	0.000	0.143	0.333	0.648	1.125	1.162	0.710	0.037	4.157
SSW	0.000	0.000	0.095	0.523	0.462	0.621	1.116	0.700	0.044	3.562
SW	0.000	0.000	0.285	0.713	0.637	0.791	0.692	0.142	0.000	3.261
WSW	0.000	0.048	0.333	0.333	0.409	0.337	0.308	0.000	0.000	1.767
W	0.000	0.000	0.048	0.238	0.318	0.424	0.038	0.035	0.000	1.100
WNW	0.000	0.000	0.048	0.285	0.364	0.253	0.232	0.038	0.000	1.220
NW	0.000	0.000	0.143	0.143	0.273	0.503	0.501	0.071	0.000	1.632
NNW	0.000	0.000	0.095	0.190	0.320	1.507	0.659	0.056	0.000	2.827
SUBTOTAL	0.000	0.190	2.187	5.468	6.272	11.754	9.307	3.117	0.145	38.441

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF ELEVATED RELEASES	1786.830
TOTAL HOURS OF STABILITY CLASS E	924.810
TOTAL HOURS OF ELEVATED STABILITY CLASS E	808.410

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.048	0.090	0.414	0.000	0.000	0.000	0.552
NNE	0.000	0.000	0.000	0.095	0.137	0.499	0.195	0.036	0.000	0.963
NE	0.000	0.000	0.143	0.095	0.000	0.369	0.079	0.000	0.000	0.686
ENE	0.000	0.000	0.048	0.095	0.138	0.289	0.000	0.000	0.000	0.570
E	0.000	0.000	0.000	0.095	0.137	0.210	0.000	0.000	0.000	0.442
ESE	0.000	0.000	0.000	0.095	0.046	0.409	0.000	0.000	0.000	0.551
SE	0.000	0.000	0.095	0.143	0.360	0.325	0.193	0.055	0.000	1.171
SSE	0.000	0.000	0.048	0.190	0.364	0.872	0.887	0.374	0.029	2.764
S	0.000	0.048	0.048	0.143	0.507	0.749	1.048	0.083	0.000	2.625
SSW	0.000	0.000	0.000	0.143	0.554	0.380	0.117	0.000	0.000	1.194
SW	0.000	0.000	0.048	0.000	0.411	0.594	0.000	0.000	0.000	1.053
WSW	0.000	0.000	0.048	0.048	0.046	0.000	0.000	0.000	0.000	0.141
W	0.000	0.000	0.095	0.048	0.139	0.043	0.000	0.000	0.000	0.325
WNW	0.000	0.000	0.143	0.333	0.047	0.000	0.000	0.000	0.000	0.522
NW	0.000	0.000	0.000	0.190	0.138	0.000	0.000	0.000	0.000	0.329
NNW	0.000	0.000	0.000	0.048	0.090	0.296	0.000	0.000	0.000	0.433
SUBTOTAL	0.000	0.048	0.713	1.807	3.205	5.450	2.519	0.548	0.029	14.319

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF ELEVATED RELEASES	1786.830
TOTAL HOURS OF STABILITY CLASS F	368.900
TOTAL HOURS OF ELEVATED STABILITY CLASS F	301.130

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)						
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
N	0.000	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.000	0.044
NNE	0.000	0.000	0.000	0.000	0.000	0.127	0.000	0.000	0.000	0.127
NE	0.000	0.000	0.048	0.000	0.044	0.043	0.000	0.000	0.000	0.135
ENE	0.000	0.000	0.000	0.048	0.091	0.000	0.000	0.000	0.000	0.139
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.048	0.046	0.000	0.000	0.000	0.000	0.094
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	0.039	0.000	0.000	0.039
S	0.000	0.000	0.048	0.000	0.089	0.248	0.078	0.000	0.000	0.464
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	0.045	0.000	0.000	0.000	0.000	0.045
WSW	0.000	0.000	0.048	0.048	0.045	0.000	0.000	0.000	0.000	0.140
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	0.048	0.000	0.000	0.000	0.000	0.000	0.048
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	0.143	0.190	0.406	0.418	0.117	0.000	0.000	1.274

TOTAL HOURS OF VALID OBSERVATIONS	2103.000
TOTAL HOURS OF ELEVATED RELEASES	1786.830
TOTAL HOURS OF STABILITY CLASS G	56.620
TOTAL HOURS OF ELEVATED STABILITY CLASS G	26.790

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: 2012/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 8B

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR SPLIT LEVEL RELEASES

(GROUND LEVEL RELEASE MODE AND ELEVATED RELEASE MODE)

SECOND QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)						
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
N	0.000	0.000	0.000	0.000	0.027	0.091	0.000	0.000	0.000	0.118
NNE	0.000	0.000	0.000	0.000	0.029	0.097	0.000	0.000	0.000	0.126
NE	0.000	0.000	0.000	0.000	0.004	0.033	0.000	0.000	0.000	0.037
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	0.022	0.041	0.035	0.000	0.000	0.000	0.000	0.098
SE	0.000	0.000	0.033	0.085	0.000	0.000	0.000	0.000	0.000	0.118
SSE	0.000	0.000	0.058	0.046	0.000	0.000	0.000	0.000	0.000	0.104
S	0.000	0.000	0.138	0.051	0.000	0.000	0.000	0.000	0.000	0.189
SSW	0.000	0.000	0.056	0.042	0.000	0.000	0.000	0.000	0.000	0.097
SW	0.000	0.000	0.009	0.010	0.000	0.000	0.000	0.000	0.000	0.019
WSW	0.000	0.000	0.000	0.027	0.012	0.000	0.000	0.000	0.000	0.039
W	0.000	0.000	0.000	0.007	0.004	0.012	0.000	0.000	0.000	0.023
WNW	0.000	0.000	0.000	0.001	0.013	0.011	0.009	0.000	0.000	0.034
NW	0.000	0.000	0.000	0.000	0.009	0.061	0.102	0.000	0.000	0.172
NNW	0.000	0.000	0.000	0.000	0.022	0.118	0.125	0.000	0.000	0.264
SUBTOTAL	0.000	0.000	0.316	0.310	0.155	0.423	0.236	0.000	0.000	1.440

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF GROUND LEVEL RELEASE	179.140
TOTAL HOURS OF STABILITY CLASS A	97.030
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A	31.400

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.020	0.045	0.000	0.000	0.000	0.065
NNE	0.000	0.000	0.000	0.000	0.013	0.020	0.000	0.000	0.000	0.033
NE	0.000	0.000	0.000	0.000	0.013	0.021	0.000	0.000	0.000	0.034
ENE	0.000	0.000	0.000	0.000	0.006	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	0.000	0.000	0.058	0.008	0.000	0.000	0.000	0.000	0.066
SE	0.000	0.000	0.008	0.004	0.000	0.000	0.000	0.000	0.000	0.011
SSE	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.006
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	0.004	0.006	0.000	0.000	0.000	0.000	0.000	0.010
SW	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
WSW	0.000	0.000	0.000	0.011	0.012	0.000	0.000	0.000	0.000	0.023
W	0.000	0.000	0.000	0.005	0.005	0.000	0.000	0.000	0.000	0.009
WNW	0.000	0.000	0.000	0.001	0.011	0.015	0.000	0.000	0.000	0.028
NW	0.000	0.000	0.000	0.000	0.012	0.039	0.039	0.000	0.000	0.090
NNW	0.000	0.000	0.000	0.000	0.000	0.029	0.016	0.000	0.000	0.045
SUBTOTAL	0.000	0.000	0.022	0.086	0.100	0.170	0.055	0.000	0.000	0.432

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF GROUND LEVEL RELEASE	179.140
TOTAL HOURS OF STABILITY CLASS B	95.630
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B	9.420

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.004	0.011	0.012	0.000	0.000	0.000	0.027
NNE	0.000	0.000	0.000	0.000	0.015	0.013	0.000	0.000	0.000	0.028
NE	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.009
ENE	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.002
E	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.003
ESE	0.000	0.000	0.008	0.024	0.014	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.000	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.016
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	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.017
SW	0.000	0.000	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.008
WSW	0.000	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.011
W	0.000	0.000	0.000	0.003	0.006	0.000	0.000	0.000	0.000	0.010
WNW	0.000	0.000	0.000	0.000	0.007	0.036	0.000	0.000	0.000	0.044
NW	0.000	0.000	0.000	0.000	0.007	0.021	0.035	0.000	0.000	0.063
NNW	0.000	0.000	0.000	0.002	0.005	0.033	0.000	0.000	0.000	0.040
SUBTOTAL	0.000	0.000	0.043	0.058	0.071	0.117	0.035	0.000	0.000	0.324

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF GROUND LEVEL RELEASE	179.140
TOTAL HOURS OF STABILITY CLASS C	157.400
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C	7.060

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.031	0.081	0.085	0.028	0.000	0.000	0.225
NNE	0.000	0.000	0.000	0.012	0.043	0.048	0.000	0.000	0.000	0.102
NE	0.000	0.000	0.000	0.001	0.035	0.006	0.000	0.000	0.000	0.042
ENE	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.009
E	0.000	0.005	0.032	0.056	0.015	0.000	0.000	0.000	0.000	0.108
ESE	0.000	0.000	0.067	0.190	0.018	0.017	0.000	0.000	0.000	0.292
SE	0.000	0.000	0.074	0.000	0.000	0.000	0.000	0.000	0.000	0.074
SSE	0.000	0.000	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.036
S	0.000	0.000	0.049	0.009	0.000	0.000	0.000	0.000	0.000	0.058
SSW	0.000	0.000	0.088	0.032	0.000	0.000	0.000	0.000	0.000	0.119
SW	0.000	0.000	0.002	0.011	0.000	0.000	0.000	0.000	0.000	0.013
WSW	0.000	0.000	0.011	0.028	0.034	0.008	0.000	0.000	0.000	0.081
W	0.000	0.000	0.003	0.061	0.060	0.035	0.000	0.000	0.000	0.159
WNW	0.000	0.000	0.000	0.029	0.064	0.156	0.000	0.000	0.000	0.249
NW	0.000	0.000	0.000	0.027	0.059	0.160	0.018	0.000	0.000	0.264
NNW	0.000	0.000	0.000	0.042	0.077	0.139	0.016	0.000	0.000	0.274
SUBTOTAL	0.000	0.005	0.361	0.530	0.495	0.653	0.062	0.000	0.000	2.106

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF GROUND LEVEL RELEASE	179.140
TOTAL HOURS OF STABILITY CLASS D	772.060
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D	45.920

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.072	0.058	0.065	0.017	0.000	0.000	0.000	0.212
NNE	0.000	0.001	0.010	0.090	0.094	0.066	0.000	0.000	0.000	0.261
NE	0.000	0.001	0.006	0.029	0.041	0.032	0.000	0.000	0.000	0.109
ENE	0.000	0.006	0.044	0.014	0.000	0.000	0.000	0.000	0.000	0.063
E	0.000	0.007	0.135	0.112	0.015	0.000	0.000	0.000	0.000	0.268
ESE	0.000	0.004	0.099	0.177	0.055	0.021	0.000	0.000	0.000	0.355
SE	0.000	0.000	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.024
SSE	0.000	0.005	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.096
S	0.000	0.007	0.118	0.007	0.000	0.000	0.000	0.000	0.000	0.133
SSW	0.000	0.000	0.168	0.117	0.000	0.000	0.000	0.000	0.000	0.285
SW	0.000	0.000	0.022	0.006	0.000	0.000	0.000	0.000	0.000	0.029
WSW	0.000	0.000	0.025	0.005	0.008	0.000	0.000	0.000	0.000	0.037
W	0.000	0.000	0.047	0.083	0.037	0.008	0.000	0.000	0.000	0.174
WNW	0.000	0.000	0.013	0.011	0.011	0.006	0.000	0.000	0.000	0.041
NW	0.000	0.000	0.001	0.022	0.020	0.033	0.000	0.000	0.000	0.075
NNW	0.000	0.000	0.038	0.095	0.029	0.068	0.000	0.000	0.000	0.230
SUBTOTAL	0.000	0.031	0.912	0.825	0.374	0.250	0.000	0.000	0.000	2.392

TOTAL HOURS OF VALID OBSERVATIONS 2180.000
 TOTAL HOURS OF GROUND LEVEL RELEASE 179.140
 TOTAL HOURS OF STABILITY CLASS E 630.820
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 52.150

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)						
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
N	0.000	0.000	0.126	0.083	0.006	0.000	0.000	0.000	0.000	0.215
NNE	0.000	0.000	0.063	0.146	0.008	0.000	0.000	0.000	0.000	0.217
NE	0.000	0.010	0.048	0.030	0.000	0.000	0.000	0.000	0.000	0.087
ENE	0.000	0.019	0.046	0.015	0.000	0.000	0.000	0.000	0.000	0.079
E	0.000	0.019	0.080	0.056	0.000	0.000	0.000	0.000	0.000	0.155
ESE	0.000	0.002	0.040	0.007	0.000	0.000	0.000	0.000	0.000	0.050
SE	0.000	0.008	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.015
SSE	0.000	0.012	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.018
S	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
SSW	0.000	0.006	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.027
SW	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.009
WSW	0.000	0.008	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.060
W	0.000	0.000	0.002	0.022	0.000	0.000	0.000	0.000	0.000	0.024
WNW	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
NW	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
NNW	0.000	0.000	0.028	0.016	0.023	0.000	0.000	0.000	0.000	0.067
SUBTOTAL	0.000	0.084	0.530	0.373	0.038	0.000	0.000	0.000	0.000	1.025

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF GROUND LEVEL RELEASE	179.140
TOTAL HOURS OF STABILITY CLASS F	311.890
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F	22.350

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.002	0.011	0.110	0.111	0.000	0.000	0.000	0.000	0.000	0.233
NNE	0.001	0.002	0.060	0.043	0.000	0.000	0.000	0.000	0.000	0.105
NE	0.001	0.004	0.041	0.006	0.000	0.000	0.000	0.000	0.000	0.051
ENE	0.001	0.006	0.037	0.003	0.000	0.000	0.000	0.000	0.000	0.047
E	0.000	0.019	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.038
ESE	0.000	0.005	0.000	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	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
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	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.009
SUBTOTAL	0.005	0.059	0.261	0.173	0.000	0.000	0.000	0.000	0.000	0.497

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF GROUND LEVEL RELEASE	179.140
TOTAL HOURS OF STABILITY CLASS G	115.170
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G	10.840

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
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	0.039	0.225	0.000	0.000	0.264
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	0.046	0.138	0.090	0.161	0.036	0.000	0.000	0.471
SSE	0.000	0.000	0.000	0.138	0.439	0.369	0.076	0.000	0.000	1.022
S	0.000	0.000	0.000	0.046	0.134	0.531	0.150	0.000	0.000	0.862
SSW	0.000	0.000	0.000	0.000	0.000	0.164	0.000	0.000	0.000	0.164
SW	0.000	0.000	0.000	0.046	0.046	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	0.000	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	0.111	0.000	0.000	0.111
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025	0.000	0.025
SUBTOTAL	0.000	0.000	0.046	0.367	0.710	1.264	0.599	0.025	0.000	3.011

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF ELEVATED RELEASES	2000.860
TOTAL HOURS OF STABILITY CLASS A	97.030
TOTAL HOURS OF ELEVATED STABILITY CLASS A	65.630

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.161	0.038	0.000	0.000	0.199
NNE	0.000	0.000	0.000	0.000	0.000	0.160	0.111	0.000	0.000	0.271
NE	0.000	0.000	0.000	0.000	0.000	0.121	0.000	0.000	0.000	0.121
ENE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.229	0.487	0.250	0.075	0.000	0.000	1.041
SSE	0.000	0.000	0.046	0.183	0.128	0.000	0.038	0.000	0.000	0.396
S	0.000	0.000	0.000	0.138	0.092	0.408	0.076	0.000	0.000	0.714
SSW	0.000	0.000	0.000	0.138	0.045	0.122	0.037	0.000	0.000	0.341
SW	0.000	0.000	0.000	0.092	0.000	0.080	0.000	0.000	0.000	0.172
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	0.138	0.000	0.000	0.000	0.000	0.000	0.138
WNW	0.000	0.000	0.000	0.000	0.043	0.040	0.000	0.000	0.000	0.083
NW	0.000	0.000	0.000	0.046	0.000	0.080	0.111	0.000	0.000	0.237
NNW	0.000	0.000	0.000	0.000	0.000	0.080	0.074	0.043	0.000	0.197
SUBTOTAL	0.000	0.000	0.046	1.009	0.794	1.502	0.561	0.043	0.000	3.955

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF ELEVATED RELEASES	2000.860
TOTAL HOURS OF STABILITY CLASS B	95.630
TOTAL HOURS OF ELEVATED STABILITY CLASS B	86.210

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.043	0.641	0.036	0.000	0.000	0.720
NNE	0.000	0.000	0.000	0.000	0.000	0.444	0.037	0.000	0.000	0.481
NE	0.000	0.000	0.000	0.000	0.000	0.078	0.038	0.000	0.000	0.117
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	0.090	0.000	0.000	0.000	0.000	0.090
SE	0.000	0.000	0.046	0.505	0.347	0.116	0.038	0.000	0.000	1.051
SSE	0.000	0.000	0.138	0.138	0.092	0.042	0.038	0.036	0.000	0.483
S	0.000	0.000	0.000	0.183	0.000	0.122	0.075	0.000	0.000	0.380
SSW	0.000	0.000	0.046	0.229	0.089	0.202	0.000	0.000	0.000	0.567
SW	0.000	0.000	0.000	0.183	0.130	0.121	0.000	0.000	0.000	0.434
WSW	0.000	0.000	0.000	0.321	0.089	0.122	0.000	0.000	0.000	0.532
W	0.000	0.000	0.000	0.413	0.089	0.084	0.000	0.000	0.000	0.586
WNW	0.000	0.000	0.000	0.092	0.089	0.202	0.075	0.000	0.000	0.457
NW	0.000	0.000	0.000	0.000	0.043	0.081	0.112	0.154	0.000	0.389
NNW	0.000	0.000	0.000	0.046	0.000	0.122	0.411	0.030	0.000	0.609
SUBTOTAL	0.000	0.000	0.229	2.110	1.100	2.378	0.859	0.220	0.000	6.896

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF ELEVATED RELEASES	2000.860
TOTAL HOURS OF STABILITY CLASS C	157.400
TOTAL HOURS OF ELEVATED STABILITY CLASS C	150.340

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.183	0.613	1.132	0.784	0.077	0.000	2.789
NNE	0.000	0.000	0.046	0.229	0.489	0.843	0.227	0.000	0.000	1.834
NE	0.000	0.000	0.000	0.183	0.180	0.249	0.000	0.000	0.000	0.612
ENE	0.000	0.000	0.092	0.000	0.173	0.084	0.000	0.000	0.000	0.350
E	0.000	0.000	0.000	0.092	0.133	0.083	0.000	0.000	0.000	0.307
ESE	0.000	0.000	0.138	0.229	0.222	0.612	0.038	0.000	0.000	1.239
SE	0.000	0.046	0.550	0.275	0.443	1.075	0.563	0.125	0.000	3.078
SSE	0.000	0.000	0.734	0.734	0.176	0.555	1.123	0.034	0.000	3.356
S	0.000	0.000	0.505	0.688	0.304	0.599	0.522	0.000	0.000	2.618
SSW	0.000	0.000	0.413	0.596	0.400	0.400	0.262	0.000	0.000	2.072
SW	0.000	0.000	0.550	0.780	0.395	0.571	0.076	0.000	0.000	2.372
WSW	0.000	0.000	0.275	0.826	0.402	0.933	0.038	0.000	0.000	2.474
W	0.000	0.046	0.092	0.734	0.528	0.528	0.076	0.000	0.000	2.004
WNW	0.000	0.000	0.046	0.367	0.750	1.777	0.227	0.036	0.000	3.203
NW	0.000	0.000	0.092	0.183	0.745	1.130	0.522	0.063	0.000	2.735
NNW	0.000	0.046	0.138	0.229	0.440	1.047	0.338	0.030	0.000	2.268
SUBTOTAL	0.000	0.138	3.670	6.330	6.393	11.617	4.796	0.365	0.000	33.309

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF ELEVATED RELEASES	2000.860
TOTAL HOURS OF STABILITY CLASS D	772.060
TOTAL HOURS OF ELEVATED STABILITY CLASS D	726.140

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.046	0.413	0.355	1.207	0.150	0.000	0.000	2.171
NNE	0.000	0.000	0.138	0.183	0.043	1.329	0.715	0.000	0.000	2.408
NE	0.000	0.000	0.046	0.000	0.263	0.445	0.152	0.000	0.000	0.906
ENE	0.000	0.000	0.046	0.092	0.045	0.250	0.000	0.000	0.000	0.433
E	0.000	0.000	0.138	0.138	0.351	0.165	0.000	0.000	0.000	0.791
ESE	0.000	0.000	0.046	0.046	0.399	0.412	0.038	0.000	0.000	0.941
SE	0.000	0.000	0.138	0.183	0.705	0.849	0.262	0.000	0.000	2.137
SSE	0.000	0.046	0.367	0.550	0.487	1.244	0.824	0.061	0.000	3.580
S	0.000	0.046	0.138	0.917	0.393	0.726	0.633	0.100	0.000	2.953
SSW	0.000	0.000	0.138	0.826	0.219	0.810	0.075	0.000	0.000	2.067
SW	0.000	0.000	0.367	0.550	0.622	0.322	0.038	0.000	0.000	1.899
WSW	0.000	0.000	0.229	0.321	0.179	0.082	0.000	0.000	0.000	0.811
W	0.000	0.000	0.138	0.275	0.579	0.448	0.000	0.000	0.000	1.440
WNW	0.000	0.000	0.092	0.046	0.222	0.528	0.038	0.000	0.000	0.926
NW	0.000	0.000	0.092	0.092	0.220	0.243	0.262	0.000	0.000	0.908
NNW	0.000	0.000	0.229	0.229	0.358	1.057	0.300	0.000	0.000	2.174
SUBTOTAL	0.000	0.092	2.385	4.862	5.439	10.117	3.487	0.161	0.000	26.544

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF ELEVATED RELEASES	2000.860
TOTAL HOURS OF STABILITY CLASS E	630.820
TOTAL HOURS OF ELEVATED STABILITY CLASS E	578.670

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.046	0.138	0.132	0.692	0.113	0.000	0.000	1.121
NNE	0.000	0.000	0.046	0.183	0.175	0.837	0.341	0.000	0.000	1.582
NE	0.000	0.046	0.046	0.092	0.350	0.649	0.038	0.000	0.000	1.221
ENE	0.000	0.000	0.092	0.092	0.220	0.162	0.000	0.000	0.000	0.566
E	0.000	0.000	0.092	0.092	0.267	0.165	0.000	0.000	0.000	0.615
ESE	0.000	0.000	0.138	0.138	0.397	0.289	0.000	0.000	0.000	0.961
SE	0.000	0.000	0.092	0.183	0.136	0.659	0.000	0.000	0.000	1.070
SSE	0.000	0.046	0.092	0.046	0.176	0.081	0.074	0.036	0.000	0.550
S	0.000	0.000	0.046	0.505	0.533	0.245	0.038	0.000	0.000	1.367
SSW	0.000	0.046	0.229	0.229	0.222	0.328	0.000	0.000	0.000	1.055
SW	0.000	0.000	0.183	0.229	0.044	0.000	0.000	0.000	0.000	0.457
WSW	0.000	0.000	0.138	0.229	0.000	0.000	0.000	0.000	0.000	0.367
W	0.000	0.000	0.138	0.367	0.180	0.082	0.000	0.000	0.000	0.767
WNW	0.000	0.000	0.000	0.183	0.091	0.122	0.000	0.000	0.000	0.396
NW	0.000	0.000	0.046	0.138	0.135	0.042	0.000	0.000	0.000	0.361
NNW	0.000	0.000	0.046	0.275	0.224	0.282	0.000	0.000	0.000	0.827
SUBTOTAL	0.000	0.138	1.468	3.119	3.282	4.635	0.604	0.036	0.000	13.282

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF ELEVATED RELEASES	2000.860
TOTAL HOURS OF STABILITY CLASS F	311.890
TOTAL HOURS OF ELEVATED STABILITY CLASS F	289.540

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.092	0.092	0.000	0.399	0.038	0.000	0.000	0.621
NNE	0.000	0.000	0.046	0.000	0.045	0.274	0.152	0.000	0.000	0.517
NE	0.000	0.000	0.046	0.046	0.306	0.367	0.038	0.000	0.000	0.802
ENE	0.000	0.000	0.046	0.092	0.130	0.285	0.000	0.000	0.000	0.553
E	0.000	0.046	0.092	0.229	0.044	0.123	0.000	0.000	0.000	0.534
ESE	0.000	0.046	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.138
SE	0.000	0.000	0.138	0.046	0.089	0.000	0.000	0.000	0.000	0.272
SSE	0.000	0.000	0.092	0.046	0.000	0.042	0.000	0.000	0.000	0.180
S	0.000	0.000	0.046	0.000	0.046	0.082	0.000	0.000	0.000	0.173
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	0.138	0.046	0.000	0.000	0.000	0.000	0.000	0.183
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	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.092
WNW	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.092
NW	0.000	0.046	0.046	0.138	0.046	0.042	0.000	0.000	0.000	0.317
NNW	0.000	0.000	0.092	0.046	0.089	0.039	0.000	0.000	0.000	0.266
SUBTOTAL	0.000	0.138	0.963	1.009	0.794	1.654	0.228	0.000	0.000	4.786

TOTAL HOURS OF VALID OBSERVATIONS	2180.000
TOTAL HOURS OF ELEVATED RELEASES	2000.860
TOTAL HOURS OF STABILITY CLASS G	115.170
TOTAL HOURS OF ELEVATED STABILITY CLASS G	104.330

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: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 8C

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR SPLIT LEVEL RELEASES

(GROUND LEVEL RELEASE MODE AND ELEVATED RELEASE MODE)

THIRD QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.011	0.007	0.000	0.000	0.000	0.018
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	0.004	0.000	0.011	0.000	0.000	0.015
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	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
ESE	0.000	0.000	0.013	0.103	0.008	0.000	0.000	0.000	0.000	0.124
SE	0.000	0.000	0.071	0.077	0.000	0.000	0.000	0.000	0.000	0.148
SSE	0.000	0.000	0.057	0.036	0.000	0.000	0.000	0.000	0.000	0.093
S	0.000	0.000	0.071	0.018	0.000	0.000	0.000	0.000	0.000	0.089
SSW	0.000	0.000	0.155	0.084	0.000	0.000	0.000	0.000	0.000	0.239
SW	0.000	0.000	0.019	0.025	0.000	0.000	0.000	0.000	0.000	0.045
WSW	0.000	0.000	0.000	0.009	0.001	0.000	0.000	0.000	0.000	0.010
W	0.000	0.000	0.000	0.007	0.070	0.033	0.000	0.000	0.000	0.110
WNW	0.000	0.000	0.000	0.001	0.009	0.083	0.021	0.000	0.000	0.114
NW	0.000	0.000	0.000	0.000	0.005	0.026	0.031	0.000	0.000	0.062
NNW	0.000	0.000	0.000	0.000	0.003	0.014	0.011	0.000	0.000	0.028
SUBTOTAL	0.000	0.000	0.390	0.362	0.110	0.164	0.073	0.000	0.000	1.098

TOTAL HOURS OF VALID OBSERVATIONS 1899.000
 TOTAL HOURS OF GROUND LEVEL RELEASE 114.410
 TOTAL HOURS OF STABILITY CLASS A 67.530
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A 20.860

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)						
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
N	0.000	0.000	0.000	0.000	0.016	0.014	0.000	0.000	0.000	0.029
NNE	0.000	0.000	0.000	0.000	0.014	0.013	0.000	0.000	0.000	0.027
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	0.009	0.032	0.000	0.000	0.000	0.000	0.000	0.041
SE	0.000	0.000	0.009	0.005	0.000	0.000	0.000	0.000	0.000	0.014
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	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.009
SSW	0.000	0.000	0.060	0.011	0.000	0.000	0.000	0.000	0.000	0.070
SW	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.011
WSW	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.003
W	0.000	0.000	0.000	0.004	0.025	0.004	0.000	0.000	0.000	0.033
WNW	0.000	0.000	0.000	0.000	0.018	0.007	0.000	0.000	0.000	0.026
NW	0.000	0.000	0.000	0.000	0.010	0.056	0.011	0.000	0.000	0.076
NNW	0.000	0.000	0.000	0.002	0.005	0.023	0.000	0.000	0.000	0.029
SUBTOTAL	0.000	0.000	0.109	0.055	0.091	0.116	0.011	0.000	0.000	0.382

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF GROUND LEVEL RELEASE	114.410
TOTAL HOURS OF STABILITY CLASS B	62.370
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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.004	0.014	0.000	0.000	0.000	0.000	0.018
NNE	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.004
NE	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.005
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	0.008	0.000	0.000	0.000	0.000	0.000	0.008
ESE	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.010
SE	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.007
SSE	0.000	0.000	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.017
S	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.005
SSW	0.000	0.000	0.014	0.011	0.000	0.000	0.000	0.000	0.000	0.024
SW	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.015
WSW	0.000	0.000	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.019
W	0.000	0.000	0.002	0.015	0.015	0.006	0.000	0.000	0.000	0.038
WNW	0.000	0.000	0.000	0.001	0.026	0.007	0.000	0.000	0.000	0.033
NW	0.000	0.000	0.000	0.001	0.008	0.032	0.000	0.000	0.000	0.040
NNW	0.000	0.000	0.000	0.000	0.005	0.010	0.000	0.000	0.000	0.015
SUBTOTAL	0.000	0.000	0.052	0.076	0.072	0.060	0.000	0.000	0.000	0.259

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF GROUND LEVEL RELEASE	114.410
TOTAL HOURS OF STABILITY CLASS C	121.750
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C	4.910

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.004	0.012	0.014	0.000	0.000	0.000	0.000	0.029
NNE	0.000	0.000	0.002	0.015	0.028	0.008	0.011	0.000	0.000	0.065
NE	0.000	0.000	0.000	0.017	0.006	0.007	0.000	0.000	0.000	0.030
ENE	0.000	0.000	0.000	0.014	0.000	0.018	0.000	0.000	0.000	0.033
E	0.000	0.000	0.008	0.053	0.038	0.010	0.000	0.000	0.000	0.110
ESE	0.000	0.000	0.138	0.245	0.146	0.039	0.000	0.000	0.000	0.569
SE	0.000	0.000	0.098	0.031	0.000	0.000	0.000	0.000	0.000	0.129
SSE	0.000	0.000	0.085	0.000	0.000	0.000	0.000	0.000	0.000	0.085
S	0.000	0.002	0.128	0.000	0.000	0.000	0.000	0.000	0.000	0.130
SSW	0.000	0.000	0.165	0.015	0.000	0.000	0.000	0.000	0.000	0.180
SW	0.000	0.000	0.052	0.000	0.011	0.000	0.000	0.000	0.000	0.062
WSW	0.000	0.000	0.014	0.046	0.000	0.000	0.000	0.000	0.000	0.060
W	0.000	0.000	0.004	0.060	0.057	0.008	0.000	0.000	0.000	0.130
WNW	0.000	0.000	0.000	0.008	0.026	0.033	0.000	0.000	0.000	0.067
NW	0.000	0.000	0.003	0.000	0.004	0.044	0.000	0.000	0.000	0.051
NNW	0.000	0.000	0.000	0.004	0.029	0.035	0.000	0.000	0.000	0.068
SUBTOTAL	0.000	0.002	0.702	0.519	0.361	0.204	0.011	0.000	0.000	1.799

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF GROUND LEVEL RELEASE	114.410
TOTAL HOURS OF STABILITY CLASS D	793.600
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D	34.160

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)						
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
N	0.000	0.000	0.008	0.049	0.000	0.000	0.000	0.000	0.000	0.057
NNE	0.000	0.000	0.006	0.049	0.042	0.025	0.000	0.000	0.000	0.123
NE	0.000	0.000	0.011	0.036	0.013	0.026	0.000	0.000	0.000	0.085
ENE	0.000	0.011	0.028	0.057	0.006	0.000	0.000	0.000	0.000	0.103
E	0.000	0.001	0.091	0.186	0.008	0.009	0.000	0.000	0.000	0.295
ESE	0.000	0.000	0.080	0.078	0.009	0.000	0.000	0.000	0.000	0.167
SE	0.000	0.006	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.049
SSE	0.000	0.003	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.049
S	0.000	0.032	0.108	0.000	0.000	0.000	0.000	0.000	0.000	0.140
SSW	0.000	0.008	0.097	0.000	0.000	0.000	0.000	0.000	0.000	0.105
SW	0.000	0.004	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.027
WSW	0.000	0.004	0.055	0.027	0.000	0.000	0.000	0.000	0.000	0.085
W	0.000	0.000	0.033	0.056	0.000	0.000	0.000	0.000	0.000	0.089
WNW	0.000	0.007	0.007	0.014	0.000	0.006	0.000	0.000	0.000	0.034
NW	0.000	0.000	0.000	0.017	0.012	0.016	0.000	0.000	0.000	0.045
NNW	0.000	0.000	0.000	0.039	0.015	0.009	0.000	0.000	0.000	0.063
SUBTOTAL	0.000	0.075	0.636	0.607	0.105	0.091	0.000	0.000	0.000	1.514

TOTAL HOURS OF VALID OBSERVATIONS 1899.000
TOTAL HOURS OF GROUND LEVEL RELEASE 114.410
TOTAL HOURS OF STABILITY CLASS E 537.700
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 28.750

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.012	0.040	0.033	0.000	0.000	0.000	0.000	0.000	0.085
NNE	0.000	0.009	0.031	0.042	0.000	0.000	0.000	0.000	0.000	0.082
NE	0.000	0.005	0.015	0.012	0.000	0.009	0.000	0.000	0.000	0.041
ENE	0.000	0.003	0.073	0.033	0.000	0.000	0.000	0.000	0.000	0.108
E	0.000	0.004	0.066	0.075	0.000	0.000	0.000	0.000	0.000	0.146
ESE	0.000	0.002	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.029
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	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.012
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	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.010
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	0.002	0.000	0.000	0.000	0.000	0.000	0.002
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
NNW	0.000	0.000	0.021	0.043	0.000	0.000	0.000	0.000	0.000	0.064
SUBTOTAL	0.000	0.037	0.295	0.239	0.000	0.009	0.000	0.000	0.000	0.581

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF GROUND LEVEL RELEASE	114.410
TOTAL HOURS OF STABILITY CLASS F	215.770
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F	11.030

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.003	0.059	0.141	0.000	0.000	0.000	0.000	0.000	0.203
NNE	0.000	0.006	0.011	0.017	0.000	0.000	0.000	0.000	0.000	0.034
NE	0.000	0.000	0.017	0.007	0.000	0.000	0.000	0.000	0.000	0.025
ENE	0.000	0.002	0.023	0.027	0.009	0.000	0.000	0.000	0.000	0.062
E	0.000	0.000	0.023	0.004	0.000	0.000	0.000	0.000	0.000	0.027
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	0.000	0.000	0.000	0.000	0.000	0.000	0.004
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	0.021	0.014	0.000	0.000	0.000	0.000	0.000	0.037
SUBTOTAL	0.000	0.013	0.159	0.211	0.009	0.000	0.000	0.000	0.000	0.392

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF GROUND LEVEL RELEASE	114.410
TOTAL HOURS OF STABILITY CLASS G	100.280
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G	7.440

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
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	0.508	0.000	0.000	0.000	0.508
SSE	0.000	0.000	0.000	0.000	0.300	0.184	0.000	0.000	0.000	0.483
S	0.000	0.000	0.000	0.000	0.253	0.145	0.042	0.000	0.000	0.440
SSW	0.000	0.000	0.000	0.000	0.100	0.327	0.043	0.000	0.000	0.470
SW	0.000	0.000	0.000	0.000	0.253	0.000	0.000	0.000	0.000	0.253
WSW	0.000	0.000	0.000	0.053	0.153	0.000	0.000	0.000	0.000	0.205
W	0.000	0.000	0.000	0.053	0.000	0.045	0.000	0.000	0.000	0.098
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	0.105	1.058	1.209	0.085	0.000	0.000	2.458

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF ELEVATED RELEASES	1784.590
TOTAL HOURS OF STABILITY CLASS A	67.530
TOTAL HOURS OF ELEVATED STABILITY CLASS A	46.670

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

2012 BROWNS FERRY NUCLEAR PLANT UNITS 1, 2, AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	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	0.105	0.100	0.096	0.085	0.000	0.000	0.387
SSE	0.000	0.000	0.053	0.000	0.049	0.137	0.000	0.000	0.000	0.240
S	0.000	0.000	0.000	0.000	0.150	0.234	0.130	0.000	0.000	0.513
SSW	0.000	0.000	0.000	0.158	0.154	0.186	0.043	0.000	0.000	0.541
SW	0.000	0.000	0.000	0.158	0.049	0.045	0.000	0.000	0.000	0.252
WSW	0.000	0.000	0.000	0.105	0.052	0.000	0.000	0.000	0.000	0.157
W	0.000	0.000	0.000	0.053	0.251	0.239	0.000	0.000	0.000	0.542
WNW	0.000	0.000	0.000	0.000	0.000	0.091	0.087	0.000	0.000	0.178
NW	0.000	0.000	0.000	0.000	0.000	0.048	0.044	0.000	0.000	0.092
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	0.053	0.579	0.805	1.076	0.389	0.000	0.000	2.902

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF ELEVATED RELEASES	1784.590
TOTAL HOURS OF STABILITY CLASS B	62.370
TOTAL HOURS OF ELEVATED STABILITY CLASS B	55.110

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.182	0.000	0.000	0.000	0.182
NNE	0.000	0.000	0.000	0.000	0.000	0.143	0.000	0.000	0.000	0.143
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	0.053	0.000	0.000	0.000	0.000	0.000	0.053
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	0.053	0.105	0.000	0.411	0.044	0.000	0.000	0.613
SSE	0.000	0.000	0.105	0.263	0.103	0.095	0.128	0.000	0.000	0.695
S	0.000	0.000	0.105	0.211	0.049	0.462	0.131	0.000	0.000	0.958
SSW	0.000	0.000	0.000	0.263	0.152	0.142	0.087	0.000	0.000	0.645
SW	0.000	0.000	0.000	0.211	0.205	0.187	0.000	0.000	0.000	0.603
WSW	0.000	0.000	0.053	0.316	0.000	0.047	0.000	0.000	0.000	0.416
W	0.000	0.000	0.000	0.316	0.515	0.143	0.000	0.000	0.000	0.974
WNW	0.000	0.000	0.000	0.000	0.150	0.369	0.042	0.000	0.000	0.560
NW	0.000	0.000	0.000	0.000	0.053	0.044	0.171	0.000	0.000	0.268
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.042	0.000	0.000	0.042
SUBTOTAL	0.000	0.000	0.316	1.738	1.226	2.226	0.646	0.000	0.000	6.153

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF ELEVATED RELEASES	1784.590
TOTAL HOURS OF STABILITY CLASS C	121.750
TOTAL HOURS OF ELEVATED STABILITY CLASS C	116.840

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.158	0.316	0.657	0.427	0.000	0.000	0.000	1.558
NNE	0.000	0.000	0.105	0.369	0.203	0.425	0.042	0.000	0.000	1.144
NE	0.000	0.000	0.158	0.316	0.302	0.186	0.044	0.042	0.000	1.048
ENE	0.000	0.000	0.158	0.211	0.306	0.048	0.000	0.000	0.000	0.723
E	0.000	0.000	0.158	0.105	0.155	0.048	0.000	0.000	0.000	0.467
ESE	0.000	0.000	0.105	0.211	0.249	0.463	0.129	0.000	0.000	1.156
SE	0.000	0.000	0.316	0.579	0.302	1.150	0.509	0.145	0.000	3.002
SSE	0.000	0.053	0.685	0.790	0.508	1.889	0.988	0.000	0.000	4.913
S	0.000	0.053	0.685	1.474	0.966	2.788	0.558	0.000	0.000	6.524
SSW	0.000	0.105	0.632	1.843	1.130	1.534	0.302	0.000	0.000	5.547
SW	0.000	0.105	0.579	1.001	0.823	0.138	0.086	0.000	0.000	2.732
WSW	0.000	0.000	0.474	1.106	0.817	0.234	0.000	0.000	0.000	2.631
W	0.000	0.000	0.263	1.053	1.621	0.938	0.043	0.000	0.000	3.919
WNW	0.000	0.000	0.000	0.421	0.360	1.078	0.085	0.000	0.000	1.944
NW	0.000	0.000	0.053	0.316	0.255	0.693	0.087	0.000	0.000	1.403
NNW	0.000	0.000	0.158	0.316	0.357	0.279	0.172	0.000	0.000	1.281
SUBTOTAL	0.000	0.316	4.687	10.427	9.011	12.321	3.044	0.187	0.000	39.992

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF ELEVATED RELEASES	1784.590
TOTAL HOURS OF STABILITY CLASS D	793.600
TOTAL HOURS OF ELEVATED STABILITY CLASS D	759.440

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.263	0.527	0.103	0.514	0.087	0.000	0.000	1.494
NNE	0.000	0.053	0.053	0.579	0.559	0.553	0.000	0.000	0.000	1.797
NE	0.000	0.000	0.105	0.211	0.457	0.412	0.043	0.000	0.000	1.229
ENE	0.000	0.000	0.421	0.158	0.357	0.242	0.086	0.000	0.000	1.264
E	0.000	0.000	0.158	0.105	0.349	0.711	0.044	0.000	0.000	1.367
ESE	0.000	0.000	0.053	0.421	0.451	1.120	0.131	0.000	0.000	2.176
SE	0.000	0.053	0.105	0.737	0.456	1.080	0.000	0.000	0.000	2.431
SSE	0.000	0.053	0.369	0.474	0.806	0.466	0.128	0.000	0.000	2.295
S	0.000	0.053	0.316	0.527	0.561	1.109	0.130	0.000	0.000	2.695
SSW	0.000	0.053	0.316	0.632	0.759	0.230	0.000	0.000	0.000	1.989
SW	0.000	0.000	0.263	0.948	0.153	0.090	0.000	0.000	0.000	1.454
WSW	0.000	0.000	0.316	0.632	0.308	0.094	0.000	0.000	0.000	1.350
W	0.000	0.000	0.211	0.632	1.371	0.573	0.000	0.000	0.000	2.786
WNW	0.000	0.000	0.211	0.158	0.309	0.470	0.000	0.000	0.000	1.148
NW	0.000	0.000	0.000	0.158	0.051	0.000	0.128	0.000	0.000	0.336
NNW	0.000	0.053	0.211	0.053	0.355	0.188	0.131	0.000	0.000	0.989
SUBTOTAL	0.000	0.316	3.370	6.951	7.404	7.852	0.908	0.000	0.000	26.801

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF ELEVATED RELEASES	1784.590
TOTAL HOURS OF STABILITY CLASS E	537.700
TOTAL HOURS OF ELEVATED STABILITY CLASS E	508.950

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.101	0.645	0.044	0.000	0.000	0.789
NNE	0.000	0.000	0.000	0.105	0.504	0.553	0.087	0.000	0.000	1.249
NE	0.000	0.000	0.053	0.211	0.202	0.504	0.044	0.000	0.000	1.013
ENE	0.000	0.000	0.105	0.263	0.151	0.185	0.086	0.000	0.000	0.791
E	0.000	0.000	0.000	0.263	0.305	0.235	0.000	0.000	0.000	0.804
ESE	0.000	0.053	0.158	0.158	0.450	1.041	0.000	0.000	0.000	1.859
SE	0.000	0.000	0.105	0.263	0.356	0.519	0.000	0.000	0.000	1.244
SSE	0.000	0.000	0.105	0.211	0.201	0.192	0.000	0.000	0.000	0.709
S	0.000	0.000	0.211	0.105	0.151	0.143	0.000	0.000	0.000	0.610
SSW	0.000	0.000	0.263	0.105	0.154	0.048	0.000	0.000	0.000	0.571
SW	0.000	0.000	0.053	0.158	0.000	0.000	0.000	0.000	0.000	0.211
WSW	0.000	0.000	0.000	0.053	0.104	0.000	0.000	0.000	0.000	0.156
W	0.000	0.000	0.053	0.053	0.000	0.000	0.000	0.000	0.000	0.105
WNW	0.000	0.000	0.105	0.053	0.051	0.000	0.000	0.000	0.000	0.209
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	0.105	0.105	0.206	0.045	0.000	0.000	0.000	0.461
SUBTOTAL	0.000	0.053	1.316	2.106	2.935	4.111	0.261	0.000	0.000	10.781

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF ELEVATED RELEASES	1784.590
TOTAL HOURS OF STABILITY CLASS F	215.770
TOTAL HOURS OF ELEVATED STABILITY CLASS F	204.740

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.051	0.000	0.000	0.000	0.000	0.051
NNE	0.004	0.105	0.053	0.053	0.155	0.411	0.044	0.000	0.000	0.825
NE	0.006	0.000	0.211	0.316	0.150	0.368	0.000	0.000	0.000	1.050
ENE	0.001	0.000	0.053	0.158	0.052	0.096	0.000	0.000	0.000	0.360
E	0.006	0.053	0.158	0.105	0.050	0.145	0.000	0.000	0.000	0.517
ESE	0.001	0.000	0.053	0.000	0.053	0.000	0.000	0.000	0.000	0.107
SE	0.003	0.000	0.105	0.105	0.053	0.000	0.000	0.000	0.000	0.266
SSE	0.007	0.053	0.211	0.000	0.051	0.000	0.000	0.000	0.000	0.322
S	0.006	0.053	0.158	0.211	0.053	0.000	0.000	0.000	0.000	0.480
SSW	0.007	0.053	0.211	0.053	0.051	0.000	0.000	0.000	0.000	0.374
SW	0.000	0.000	0.000	0.105	0.000	0.000	0.000	0.000	0.000	0.105
WSW	0.006	0.053	0.158	0.000	0.000	0.000	0.000	0.000	0.000	0.216
W	0.000	0.000	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.053
WNW	0.001	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.054
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.003	0.000	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.108
SUBTOTAL	0.053	0.369	1.527	1.159	0.718	1.021	0.044	0.000	0.000	4.889

TOTAL HOURS OF VALID OBSERVATIONS	1899.000
TOTAL HOURS OF ELEVATED RELEASES	1784.590
TOTAL HOURS OF STABILITY CLASS G	100.280
TOTAL HOURS OF ELEVATED STABILITY CLASS G	92.840

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: 2012/11/19

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 8D

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR SPLIT LEVEL RELEASES

(GROUND LEVEL RELEASE MODE AND ELEVATED RELEASE MODE)

FOURTH QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.010	0.024	0.000	0.000	0.000	0.034
NNE	0.000	0.000	0.000	0.000	0.000	0.031	0.000	0.000	0.000	0.031
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	0.010	0.000	0.000	0.000	0.000	0.010
E	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.006
ESE	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.029
SE	0.000	0.000	0.002	0.011	0.000	0.000	0.000	0.000	0.000	0.013
SSE	0.000	0.000	0.014	0.003	0.000	0.000	0.000	0.000	0.000	0.017
S	0.000	0.000	0.041	0.029	0.000	0.000	0.000	0.000	0.000	0.070
SSW	0.000	0.000	0.026	0.035	0.000	0.000	0.000	0.000	0.000	0.060
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	0.008	0.000	0.000	0.000	0.008
W	0.000	0.000	0.000	0.000	0.000	0.017	0.000	0.000	0.000	0.017
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.000	0.000	0.024
NW	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.052	0.000	0.060
NNW	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.006
SUBTOTAL	0.000	0.000	0.082	0.112	0.020	0.093	0.024	0.052	0.000	0.384

TOTAL HOURS OF VALID OBSERVATIONS	2111.000
TOTAL HOURS OF GROUND LEVEL RELEASE	233.630
TOTAL HOURS OF STABILITY CLASS A	10.630
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A	8.100

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.020
NNE	0.000	0.000	0.000	0.000	0.022	0.019	0.000	0.000	0.000	0.041
NE	0.000	0.000	0.000	0.000	0.000	0.001	0.008	0.000	0.000	0.009
ENE	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.005
E	0.000	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.003
ESE	0.000	0.000	0.008	0.001	0.009	0.000	0.000	0.000	0.000	0.018
SE	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
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	0.003	0.030	0.000	0.000	0.000	0.000	0.000	0.033
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	0.009	0.000	0.000	0.000	0.009
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	0.013	0.045	0.072	0.000	0.130
NW	0.000	0.000	0.000	0.000	0.000	0.048	0.040	0.027	0.000	0.114
NNW	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.004
SUBTOTAL	0.000	0.000	0.019	0.038	0.032	0.114	0.093	0.098	0.000	0.394

TOTAL HOURS OF VALID OBSERVATIONS	2111.000
TOTAL HOURS OF GROUND LEVEL RELEASE	233.630
TOTAL HOURS OF STABILITY CLASS B	18.530
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B	8.320

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.013	0.041	0.000	0.000	0.000	0.054
NNE	0.000	0.000	0.000	0.000	0.022	0.014	0.000	0.000	0.000	0.036
NE	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.002
ENE	0.000	0.000	0.000	0.006	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.009
SSE	0.000	0.000	0.010	0.002	0.000	0.000	0.000	0.000	0.000	0.013
S	0.000	0.000	0.003	0.034	0.000	0.000	0.000	0.000	0.000	0.037
SSW	0.000	0.000	0.003	0.009	0.000	0.000	0.000	0.000	0.000	0.012
SW	0.000	0.000	0.000	0.007	0.009	0.000	0.000	0.000	0.000	0.016
WSW	0.000	0.000	0.000	0.001	0.000	0.009	0.000	0.000	0.000	0.009
W	0.000	0.000	0.000	0.003	0.011	0.000	0.000	0.000	0.000	0.014
WNW	0.000	0.000	0.000	0.000	0.000	0.030	0.018	0.000	0.000	0.048
NW	0.000	0.000	0.000	0.000	0.003	0.072	0.016	0.019	0.000	0.109
NNW	0.000	0.000	0.000	0.000	0.003	0.070	0.000	0.000	0.000	0.073
SUBTOTAL	0.000	0.000	0.025	0.063	0.061	0.237	0.034	0.019	0.000	0.439

TOTAL HOURS OF VALID OBSERVATIONS	2111.000
TOTAL HOURS OF GROUND LEVEL RELEASE	233.630
TOTAL HOURS OF STABILITY CLASS C	47.060
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C	9.260

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.027	0.085	0.129	0.000	0.000	0.000	0.241
NNE	0.000	0.000	0.000	0.026	0.047	0.070	0.000	0.000	0.000	0.143
NE	0.000	0.000	0.000	0.014	0.022	0.080	0.000	0.000	0.000	0.116
ENE	0.000	0.000	0.000	0.006	0.008	0.000	0.000	0.000	0.000	0.013
E	0.000	0.000	0.003	0.031	0.000	0.000	0.000	0.000	0.000	0.034
ESE	0.000	0.000	0.018	0.044	0.017	0.000	0.000	0.000	0.000	0.079
SE	0.000	0.000	0.047	0.055	0.000	0.000	0.000	0.000	0.000	0.102
SSE	0.000	0.000	0.031	0.079	0.000	0.000	0.000	0.000	0.000	0.110
S	0.000	0.000	0.047	0.117	0.036	0.000	0.000	0.000	0.000	0.200
SSW	0.000	0.000	0.059	0.066	0.018	0.000	0.000	0.000	0.000	0.144
SW	0.000	0.000	0.015	0.012	0.009	0.000	0.000	0.000	0.000	0.036
WSW	0.000	0.000	0.001	0.030	0.013	0.009	0.000	0.000	0.000	0.053
W	0.000	0.000	0.011	0.040	0.042	0.069	0.187	0.044	0.000	0.392
WNW	0.000	0.000	0.000	0.013	0.019	0.159	0.367	0.482	0.000	1.039
NW	0.000	0.000	0.000	0.004	0.029	0.185	0.426	0.062	0.000	0.706
NNW	0.000	0.000	0.000	0.013	0.117	0.176	0.019	0.000	0.000	0.325
SUBTOTAL	0.000	0.000	0.232	0.578	0.461	0.875	1.000	0.587	0.000	3.734

TOTAL HOURS OF VALID OBSERVATIONS 2111.000
TOTAL HOURS OF GROUND LEVEL RELEASE 233.630
TOTAL HOURS OF STABILITY CLASS D 784.020
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D 78.820

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)						
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
N	0.000	0.000	0.019	0.062	0.028	0.018	0.000	0.000	0.000	0.127
NNE	0.000	0.000	0.022	0.030	0.043	0.048	0.000	0.000	0.000	0.143
NE	0.000	0.000	0.018	0.059	0.023	0.030	0.017	0.000	0.000	0.147
ENE	0.000	0.000	0.022	0.064	0.027	0.026	0.000	0.000	0.000	0.139
E	0.000	0.004	0.058	0.047	0.008	0.000	0.000	0.000	0.000	0.117
ESE	0.000	0.001	0.052	0.126	0.037	0.039	0.000	0.000	0.000	0.256
SE	0.000	0.000	0.114	0.023	0.000	0.038	0.000	0.000	0.000	0.175
SSE	0.000	0.000	0.066	0.086	0.000	0.000	0.000	0.000	0.000	0.152
S	0.000	0.001	0.298	0.483	0.204	0.047	0.000	0.000	0.000	1.034
SSW	0.000	0.000	0.090	0.119	0.009	0.000	0.000	0.000	0.000	0.218
SW	0.000	0.000	0.072	0.039	0.020	0.000	0.000	0.000	0.000	0.132
WSW	0.000	0.000	0.036	0.030	0.024	0.000	0.000	0.000	0.000	0.090
W	0.000	0.000	0.019	0.028	0.032	0.025	0.000	0.000	0.000	0.105
WNW	0.000	0.000	0.004	0.023	0.018	0.035	0.010	0.000	0.000	0.090
NW	0.000	0.000	0.008	0.011	0.036	0.067	0.129	0.000	0.000	0.252
NNW	0.000	0.000	0.024	0.114	0.081	0.074	0.000	0.000	0.000	0.293
SUBTOTAL	0.000	0.006	0.923	1.346	0.590	0.448	0.156	0.000	0.000	3.468

TOTAL HOURS OF VALID OBSERVATIONS 2111.000
TOTAL HOURS OF GROUND LEVEL RELEASE 233.630
TOTAL HOURS OF STABILITY CLASS E 719.110
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 73.220

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.013	0.092	0.148	0.018	0.000	0.000	0.000	0.000	0.271
NNE	0.000	0.009	0.062	0.127	0.042	0.008	0.000	0.000	0.000	0.248
NE	0.000	0.003	0.072	0.074	0.052	0.019	0.000	0.000	0.000	0.220
ENE	0.000	0.001	0.090	0.034	0.000	0.000	0.000	0.000	0.000	0.126
E	0.000	0.002	0.083	0.027	0.000	0.000	0.000	0.000	0.000	0.111
ESE	0.000	0.003	0.090	0.032	0.000	0.000	0.000	0.000	0.000	0.124
SE	0.000	0.016	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.126
SSE	0.000	0.012	0.123	0.115	0.000	0.000	0.000	0.000	0.000	0.250
S	0.000	0.011	0.101	0.147	0.000	0.000	0.000	0.000	0.000	0.260
SSW	0.000	0.000	0.015	0.015	0.000	0.000	0.000	0.000	0.000	0.030
SW	0.000	0.003	0.009	0.000	0.000	0.017	0.000	0.000	0.000	0.029
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	0.011	0.005	0.000	0.000	0.000	0.000	0.000	0.016
WNW	0.000	0.000	0.000	0.006	0.007	0.000	0.000	0.000	0.000	0.013
NW	0.000	0.000	0.007	0.000	0.001	0.009	0.000	0.000	0.000	0.017
NNW	0.000	0.000	0.050	0.061	0.022	0.000	0.000	0.000	0.000	0.133
SUBTOTAL	0.000	0.073	0.922	0.790	0.144	0.052	0.000	0.000	0.000	1.980

TOTAL HOURS OF VALID OBSERVATIONS 2111.000
TOTAL HOURS OF GROUND LEVEL RELEASE 233.630
TOTAL HOURS OF STABILITY CLASS F 389.270
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F 41.800

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.012	0.069	0.054	0.000	0.000	0.000	0.000	0.000	0.135
NNE	0.000	0.003	0.045	0.094	0.002	0.000	0.000	0.000	0.000	0.144
NE	0.000	0.027	0.045	0.052	0.021	0.011	0.000	0.000	0.000	0.156
ENE	0.000	0.020	0.029	0.007	0.000	0.000	0.000	0.000	0.000	0.056
E	0.000	0.005	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.036
ESE	0.000	0.003	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.026
SE	0.000	0.009	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.015
SSE	0.000	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.014
S	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
SSW	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.009
SW	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.010
WSW	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013
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	0.004	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.006
NNW	0.000	0.005	0.024	0.011	0.006	0.000	0.000	0.000	0.000	0.046
SUBTOTAL	0.000	0.103	0.294	0.221	0.039	0.011	0.000	0.000	0.000	0.668

TOTAL HOURS OF VALID OBSERVATIONS 2111.000
 TOTAL HOURS OF GROUND LEVEL RELEASE 233.630
 TOTAL HOURS OF STABILITY CLASS G 142.380
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G 14.110

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
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	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.038
S	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.038
SSW	0.000	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.000	0.044
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	0.044	0.000	0.076	0.000	0.000	0.120

TOTAL HOURS OF VALID OBSERVATIONS 2111.000
 TOTAL HOURS OF ELEVATED RELEASES 1877.370
 TOTAL HOURS OF STABILITY CLASS A 10.630
 TOTAL HOURS OF ELEVATED STABILITY CLASS A 2.530

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
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	0.040	0.039	0.000	0.000	0.079
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	0.047	0.046	0.044	0.000	0.000	0.000	0.137
SSE	0.000	0.000	0.000	0.000	0.045	0.000	0.038	0.000	0.000	0.083
S	0.000	0.000	0.000	0.047	0.092	0.000	0.000	0.000	0.000	0.140
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	0.095	0.228	0.084	0.077	0.000	0.000	0.484

TOTAL HOURS OF VALID OBSERVATIONS	2111.000
TOTAL HOURS OF ELEVATED RELEASES	1877.370
TOTAL HOURS OF STABILITY CLASS B	18.530
TOTAL HOURS OF ELEVATED STABILITY CLASS B	10.210

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.040	0.078	0.000	0.000	0.118
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	0.047	0.000	0.000	0.000	0.000	0.047
SE	0.000	0.000	0.000	0.237	0.138	0.000	0.039	0.000	0.000	0.414
SSE	0.000	0.000	0.000	0.047	0.092	0.040	0.000	0.000	0.000	0.180
S	0.000	0.000	0.000	0.189	0.046	0.169	0.000	0.000	0.000	0.405
SSW	0.000	0.000	0.000	0.000	0.139	0.087	0.000	0.000	0.000	0.225
SW	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
WSW	0.000	0.000	0.000	0.000	0.047	0.000	0.078	0.000	0.000	0.126
W	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.000	0.000	0.039
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.088	0.000	0.127
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.000	0.021
NNW	0.000	0.000	0.000	0.000	0.000	0.042	0.000	0.000	0.000	0.042
SUBTOTAL	0.000	0.000	0.000	0.521	0.510	0.377	0.274	0.108	0.000	1.791

TOTAL HOURS OF VALID OBSERVATIONS	2111.000
TOTAL HOURS OF ELEVATED RELEASES	1877.370
TOTAL HOURS OF STABILITY CLASS C	47.060
TOTAL HOURS OF ELEVATED STABILITY CLASS C	37.800

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.284	0.498	1.568	0.661	0.000	0.000	3.012
NNE	0.000	0.000	0.095	0.663	1.041	1.338	0.196	0.000	0.000	3.332
NE	0.000	0.047	0.095	0.284	0.365	0.590	0.039	0.000	0.000	1.421
ENE	0.000	0.000	0.047	0.142	0.181	0.253	0.000	0.000	0.000	0.623
E	0.000	0.047	0.095	0.095	0.090	0.000	0.000	0.000	0.000	0.327
ESE	0.000	0.000	0.142	0.000	0.046	0.123	0.000	0.000	0.000	0.312
SE	0.000	0.000	0.805	1.137	0.646	0.546	0.542	0.000	0.000	3.676
SSE	0.000	0.047	0.663	0.474	0.231	0.212	0.385	0.189	0.016	2.217
S	0.000	0.000	0.426	0.332	0.506	0.779	0.504	0.280	0.000	2.827
SSW	0.000	0.000	0.332	0.284	0.226	0.414	0.268	0.022	0.000	1.546
SW	0.000	0.000	0.426	0.237	0.137	0.502	0.114	0.000	0.000	1.416
WSW	0.000	0.000	0.379	0.332	0.135	0.247	0.117	0.034	0.000	1.243
W	0.000	0.095	0.237	0.332	0.630	0.584	0.232	0.099	0.020	2.228
WNW	0.000	0.047	0.047	0.284	0.458	1.001	0.541	0.710	0.024	3.112
NW	0.000	0.000	0.095	0.189	0.407	1.431	1.147	0.398	0.000	3.667
NNW	0.000	0.000	0.047	0.047	0.312	1.419	0.583	0.036	0.000	2.445
SUBTOTAL	0.000	0.284	3.932	5.116	5.910	11.007	5.327	1.769	0.061	33.406

TOTAL HOURS OF VALID OBSERVATIONS	2111.000
TOTAL HOURS OF ELEVATED RELEASES	1877.370
TOTAL HOURS OF STABILITY CLASS D	784.020
TOTAL HOURS OF ELEVATED STABILITY CLASS D	705.200

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.047	0.142	0.320	0.917	0.000	0.000	0.000	1.426
NNE	0.000	0.000	0.047	0.095	0.403	1.559	0.196	0.000	0.000	2.300
NE	0.000	0.000	0.095	0.142	0.316	0.672	0.117	0.000	0.000	1.342
ENE	0.000	0.000	0.095	0.332	0.137	0.252	0.117	0.000	0.000	0.933
E	0.000	0.000	0.189	0.189	0.233	0.296	0.077	0.000	0.000	0.984
ESE	0.000	0.047	0.237	0.379	0.419	0.420	0.038	0.037	0.000	1.577
SE	0.000	0.000	0.047	0.663	0.647	0.991	0.461	0.061	0.009	2.880
SSE	0.000	0.000	0.095	0.379	0.721	1.975	1.194	0.608	0.017	4.988
S	0.000	0.000	0.095	0.379	0.597	2.487	1.460	0.512	0.000	5.530
SSW	0.000	0.000	0.000	0.237	0.277	0.782	0.463	0.124	0.000	1.883
SW	0.000	0.000	0.000	0.379	0.318	0.591	0.114	0.031	0.000	1.433
WSW	0.000	0.000	0.047	0.189	0.185	0.125	0.079	0.000	0.000	0.625
W	0.000	0.000	0.047	0.142	0.461	0.410	0.000	0.000	0.000	1.061
WNW	0.000	0.047	0.047	0.047	0.090	0.374	0.000	0.031	0.000	0.638
NW	0.000	0.000	0.095	0.095	0.181	0.580	0.348	0.000	0.000	1.298
NNW	0.000	0.000	0.095	0.047	0.366	0.957	0.233	0.000	0.000	1.698
SUBTOTAL	0.000	0.095	1.279	3.837	5.671	13.387	4.896	1.405	0.026	30.596

TOTAL HOURS OF VALID OBSERVATIONS	2111.000
TOTAL HOURS OF ELEVATED RELEASES	1877.370
TOTAL HOURS OF STABILITY CLASS E	719.110
TOTAL HOURS OF ELEVATED STABILITY CLASS E	645.890

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.095	0.000	0.182	0.382	0.000	0.000	0.000	0.659
NNE	0.000	0.000	0.142	0.142	0.134	1.160	0.156	0.000	0.000	1.734
NE	0.000	0.000	0.047	0.142	0.321	0.169	0.000	0.000	0.000	0.680
ENE	0.000	0.000	0.142	0.189	0.270	0.169	0.000	0.000	0.000	0.771
E	0.000	0.000	0.047	0.047	0.185	0.042	0.000	0.000	0.000	0.322
ESE	0.000	0.047	0.189	0.189	0.505	0.126	0.000	0.000	0.000	1.057
SE	0.000	0.047	0.189	0.332	1.004	1.019	0.117	0.000	0.000	2.710
SSE	0.000	0.000	0.189	0.332	1.182	1.243	0.273	0.034	0.000	3.254
S	0.000	0.047	0.142	0.189	0.493	1.248	0.117	0.000	0.000	2.236
SSW	0.000	0.000	0.047	0.189	0.456	0.215	0.000	0.000	0.000	0.908
SW	0.000	0.047	0.047	0.142	0.140	0.000	0.000	0.000	0.000	0.377
WSW	0.000	0.047	0.142	0.142	0.047	0.000	0.000	0.000	0.000	0.378
W	0.000	0.000	0.000	0.142	0.047	0.000	0.000	0.000	0.000	0.189
WNW	0.000	0.000	0.047	0.142	0.092	0.000	0.000	0.000	0.000	0.281
NW	0.000	0.000	0.047	0.189	0.137	0.128	0.000	0.000	0.000	0.502
NNW	0.000	0.000	0.142	0.000	0.132	0.128	0.000	0.000	0.000	0.402
SUBTOTAL	0.000	0.237	1.658	2.511	5.327	6.030	0.664	0.034	0.000	16.460

TOTAL HOURS OF VALID OBSERVATIONS	2111.000
TOTAL HOURS OF ELEVATED RELEASES	1877.370
TOTAL HOURS OF STABILITY CLASS F	389.270
TOTAL HOURS OF ELEVATED STABILITY CLASS F	347.470

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.047	0.000	0.047	0.000	0.000	0.000	0.000	0.095
NNE	0.000	0.000	0.047	0.047	0.044	0.000	0.000	0.000	0.000	0.139
NE	0.000	0.000	0.095	0.047	0.183	0.084	0.000	0.000	0.000	0.410
ENE	0.000	0.000	0.095	0.095	0.000	0.171	0.000	0.000	0.000	0.360
E	0.000	0.000	0.047	0.047	0.000	0.087	0.000	0.000	0.000	0.181
ESE	0.000	0.000	0.095	0.189	0.139	0.083	0.000	0.000	0.000	0.506
SE	0.000	0.047	0.189	0.474	0.675	0.257	0.000	0.000	0.000	1.642
SSE	0.000	0.047	0.237	0.284	0.182	0.172	0.039	0.000	0.000	0.962
S	0.000	0.047	0.047	0.047	0.000	0.041	0.000	0.000	0.000	0.183
SSW	0.000	0.142	0.047	0.000	0.134	0.043	0.000	0.000	0.000	0.367
SW	0.000	0.000	0.047	0.095	0.000	0.000	0.000	0.000	0.000	0.142
WSW	0.000	0.095	0.095	0.047	0.000	0.000	0.000	0.000	0.000	0.237
W	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
WNW	0.000	0.000	0.142	0.189	0.000	0.000	0.000	0.000	0.000	0.332
NW	0.000	0.000	0.237	0.000	0.000	0.000	0.000	0.000	0.000	0.237
NNW	0.000	0.000	0.142	0.095	0.000	0.000	0.000	0.000	0.000	0.237
SUBTOTAL	0.000	0.379	1.611	1.705	1.404	0.938	0.039	0.000	0.000	6.076

TOTAL HOURS OF VALID OBSERVATIONS	2111.000
TOTAL HOURS OF ELEVATED RELEASES	1877.370
TOTAL HOURS OF STABILITY CLASS G	142.380
TOTAL HOURS OF ELEVATED STABILITY CLASS G	128.270

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: 2013/02/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 9A

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR ELEVATED RELEASES

FIRST QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	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	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.142	0.000	0.095	0.000	0.000	0.237
S	0.000	0.000	0.000	0.000	0.047	0.000	0.095	0.000	0.000	0.142
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.095	0.000	0.000	0.095
SW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
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	0.190	0.047	0.285	0.000	0.000	0.522

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS A	11
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	11
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2107
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: 2012/05/15

MEAN WIND SPEED = 11.66

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.047	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	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.047	0.095	0.000	0.000	0.000	0.142
SE	0.000	0.000	0.000	0.000	0.000	0.142	0.047	0.000	0.000	0.190
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.047
S	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.095
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	0.095	0.000	0.000	0.095
WSW	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.095
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	0.047	0.332	0.332	0.000	0.000	0.712

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
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	2107
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: 2012/05/15

MEAN WIND SPEED = 12.10

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.190	0.000	0.000	0.190
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	0.142	0.000	0.095	0.047	0.047	0.332
SE	0.000	0.000	0.000	0.047	0.047	0.095	0.142	0.000	0.000	0.332
SSE	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.000	0.095
S	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.095
SSW	0.000	0.000	0.000	0.047	0.000	0.047	0.047	0.000	0.000	0.142
SW	0.000	0.000	0.095	0.047	0.047	0.000	0.095	0.047	0.000	0.332
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	0.047	0.142	0.000	0.000	0.190
WNW	0.000	0.000	0.000	0.000	0.000	0.047	0.095	0.190	0.095	0.427
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.095
NNW	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.142	0.000	0.237
SUBTOTAL	0.000	0.000	0.095	0.237	0.285	0.380	0.854	0.475	0.190	2.515

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS C	53
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	53
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2107
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: 2012/05/15

MEAN WIND SPEED = 14.30

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.047	0.190	0.190	0.854	0.380	0.570	0.047	2.278
NNE	0.000	0.000	0.142	0.142	0.285	0.997	0.380	0.332	0.000	2.278
NE	0.000	0.000	0.047	0.095	0.237	0.807	0.095	0.000	0.000	1.281
ENE	0.000	0.000	0.000	0.047	0.237	0.427	0.047	0.000	0.000	0.759
E	0.000	0.000	0.000	0.000	0.190	0.190	0.047	0.000	0.000	0.427
ESE	0.000	0.000	0.000	0.427	0.190	0.380	0.380	0.190	0.000	1.566
SE	0.000	0.000	0.095	0.332	0.190	0.142	0.237	0.570	0.047	1.614
SSE	0.000	0.000	0.142	0.332	0.570	0.427	0.095	0.427	0.095	2.088
S	0.000	0.000	0.047	0.095	0.095	0.522	0.237	0.095	0.047	1.139
SSW	0.000	0.047	0.142	0.095	0.142	0.285	0.332	0.190	0.142	1.376
SW	0.000	0.000	0.285	0.142	0.237	0.427	0.190	0.095	0.000	1.376
WSW	0.000	0.000	0.190	0.190	0.285	0.854	0.617	0.427	0.000	2.563
W	0.000	0.000	0.190	0.237	0.427	0.475	0.759	0.664	0.285	3.037
WNW	0.000	0.000	0.047	0.190	0.380	1.851	0.949	1.092	0.427	4.936
NW	0.000	0.000	0.047	0.237	0.285	0.332	0.759	0.997	0.332	2.990
NNW	0.000	0.000	0.000	0.190	0.142	0.712	1.044	0.759	0.095	2.943
SUBTOTAL	0.000	0.047	1.424	2.943	4.082	9.682	6.550	6.407	1.519	32.653

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS D	688
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	688
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2107
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: 2012/05/15

MEAN WIND SPEED = 12.76

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.047	0.000	0.095	0.807	0.712	0.047	0.047	1.756
NNE	0.000	0.000	0.095	0.047	0.190	0.854	0.712	0.332	0.000	2.231
NE	0.000	0.000	0.000	0.000	0.380	0.617	0.902	0.142	0.000	2.041
ENE	0.000	0.000	0.000	0.142	0.095	0.522	0.190	0.000	0.000	0.949
E	0.000	0.000	0.047	0.142	0.095	0.142	0.332	0.000	0.000	0.759
ESE	0.000	0.000	0.000	0.142	0.237	0.522	0.902	0.617	0.047	2.468
SE	0.000	0.000	0.095	0.142	0.475	0.854	1.281	2.468	0.427	5.743
SSE	0.000	0.000	0.190	0.047	0.475	0.759	1.709	1.804	0.570	5.553
S	0.000	0.000	0.047	0.427	0.332	1.756	1.756	1.187	1.092	6.597
SSW	0.000	0.000	0.095	0.095	0.332	0.807	1.044	1.614	0.712	4.699
SW	0.000	0.047	0.095	0.190	0.475	1.519	0.807	0.332	0.142	3.607
WSW	0.000	0.000	0.000	0.380	0.427	0.712	0.285	0.237	0.000	2.041
W	0.000	0.000	0.047	0.047	0.047	0.854	0.237	0.190	0.047	1.471
WNW	0.000	0.047	0.000	0.190	0.142	0.427	0.190	0.095	0.000	1.092
NW	0.000	0.000	0.095	0.142	0.237	0.522	0.617	0.617	0.000	2.231
NNW	0.000	0.000	0.047	0.095	0.000	0.807	1.281	0.285	0.047	2.563
SUBTOTAL	0.000	0.095	0.902	2.231	4.034	12.482	12.957	9.967	3.132	45.800

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS E	965
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	965
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2107
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: 2012/05/15

MEAN WIND SPEED = 14.38

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.095	0.427	0.427	0.000	0.000	0.949
NNE	0.000	0.000	0.000	0.000	0.000	0.190	0.617	0.190	0.000	0.997
NE	0.000	0.000	0.000	0.000	0.047	0.380	0.237	0.095	0.000	0.759
ENE	0.000	0.000	0.047	0.095	0.047	0.047	0.095	0.000	0.000	0.332
E	0.000	0.000	0.000	0.142	0.142	0.190	0.237	0.095	0.000	0.807
ESE	0.000	0.000	0.000	0.000	0.095	0.047	0.190	0.000	0.000	0.332
SE	0.000	0.000	0.047	0.047	0.047	0.237	0.617	0.332	0.332	1.661
SSE	0.000	0.000	0.000	0.000	0.000	0.047	1.566	0.949	0.190	2.753
S	0.000	0.047	0.047	0.047	0.237	0.617	1.661	0.380	0.000	3.037
SSW	0.000	0.000	0.000	0.000	0.190	0.902	0.712	0.047	0.000	1.851
SW	0.000	0.000	0.000	0.000	0.000	0.664	0.475	0.000	0.000	1.139
WSW	0.000	0.047	0.000	0.095	0.000	0.237	0.000	0.000	0.000	0.380
W	0.000	0.000	0.047	0.095	0.047	0.095	0.095	0.000	0.000	0.380
WNW	0.000	0.000	0.095	0.047	0.190	0.095	0.000	0.000	0.000	0.427
NW	0.000	0.000	0.000	0.047	0.047	0.285	0.000	0.000	0.000	0.380
NNW	0.000	0.000	0.000	0.000	0.047	0.142	0.047	0.000	0.000	0.237
SUBTOTAL	0.000	0.095	0.285	0.617	1.234	4.604	6.977	2.088	0.522	16.421

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS F	346
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	346
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2107
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: 2012/05/15

MEAN WIND SPEED = 13.56

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - MAR 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.047
NE	0.000	0.000	0.000	0.000	0.000	0.047	0.142	0.000	0.000	0.190
ENE	0.000	0.000	0.000	0.000	0.000	0.142	0.000	0.000	0.000	0.142
E	0.000	0.000	0.000	0.000	0.047	0.142	0.000	0.000	0.000	0.190
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.095
S	0.000	0.000	0.000	0.000	0.000	0.000	0.237	0.047	0.000	0.285
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.142	0.000	0.000	0.142
SW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
WSW	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.095
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	0.047	0.047	0.000	0.000	0.000	0.000	0.000	0.095
NW	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
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	0.047	0.047	0.095	0.427	0.664	0.095	0.000	1.376

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2107
TOTAL HOURS OF STABILITY CLASS G	29
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	29
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2107
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: 2012/05/15

MEAN WIND SPEED = 12.17

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 9B

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR ELEVATED RELEASES

SECOND QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.275	0.046	0.000	0.321
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	0.138	0.138	0.505	0.000	0.046	0.000	0.826
SSE	0.000	0.000	0.000	0.138	0.413	0.275	0.183	0.000	0.000	1.009
S	0.000	0.000	0.000	0.000	0.092	0.413	0.229	0.000	0.000	0.734
SSW	0.000	0.000	0.000	0.000	0.000	0.183	0.000	0.000	0.000	0.183
SW	0.000	0.000	0.000	0.046	0.046	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	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.046
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.092
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.092	0.092
SUBTOTAL	0.000	0.000	0.000	0.321	0.688	1.376	0.826	0.092	0.092	3.394

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS A	74
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	74
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 10.89

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.138	0.046	0.046	0.000	0.229
NNE	0.000	0.000	0.000	0.000	0.000	0.183	0.092	0.046	0.000	0.321
NE	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.092
ENE	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.046	0.000	0.183	0.000	0.000	0.000	0.229
SE	0.000	0.000	0.046	0.092	0.505	0.321	0.092	0.000	0.000	1.055
SSE	0.000	0.000	0.000	0.183	0.092	0.046	0.092	0.000	0.000	0.413
S	0.000	0.000	0.000	0.046	0.046	0.321	0.138	0.000	0.000	0.550
SSW	0.000	0.000	0.000	0.092	0.138	0.046	0.092	0.046	0.000	0.413
SW	0.000	0.000	0.000	0.046	0.000	0.000	0.092	0.000	0.000	0.138
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	0.092	0.046	0.000	0.000	0.000	0.000	0.138
WNW	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.092
NW	0.000	0.000	0.000	0.046	0.000	0.138	0.092	0.046	0.000	0.321
NNW	0.000	0.000	0.000	0.000	0.000	0.046	0.138	0.046	0.046	0.275
SUBTOTAL	0.000	0.000	0.046	0.688	0.917	1.560	0.872	0.229	0.046	4.358

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS B	95
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	95
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 9.92

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.505	0.229	0.046	0.000	0.780
NNE	0.000	0.000	0.000	0.000	0.000	0.459	0.183	0.046	0.000	0.688
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.046	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.046	0.092	0.000	0.046	0.000	0.000	0.183
SE	0.000	0.000	0.046	0.413	0.183	0.183	0.138	0.000	0.000	0.963
SSE	0.000	0.000	0.092	0.229	0.046	0.138	0.046	0.046	0.000	0.596
S	0.000	0.000	0.000	0.183	0.046	0.046	0.183	0.000	0.000	0.459
SSW	0.000	0.000	0.092	0.046	0.000	0.229	0.000	0.000	0.000	0.367
SW	0.000	0.000	0.000	0.138	0.092	0.183	0.092	0.000	0.000	0.505
WSW	0.000	0.000	0.000	0.321	0.138	0.138	0.092	0.000	0.000	0.688
W	0.000	0.000	0.046	0.275	0.138	0.138	0.000	0.000	0.000	0.596
WNW	0.000	0.000	0.000	0.000	0.183	0.183	0.092	0.046	0.000	0.505
NW	0.000	0.000	0.000	0.000	0.046	0.046	0.138	0.229	0.000	0.459
NNW	0.000	0.000	0.000	0.046	0.000	0.092	0.550	0.046	0.000	0.734
SUBTOTAL	0.000	0.000	0.275	1.697	0.963	2.339	1.835	0.459	0.000	7.569

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS C	165
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	165
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 9.85

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.092	0.138	0.183	1.239	1.055	0.367	0.092	3.165
NNE	0.000	0.000	0.092	0.046	0.367	1.055	0.642	0.000	0.000	2.202
NE	0.000	0.046	0.046	0.092	0.046	0.321	0.046	0.000	0.000	0.596
ENE	0.000	0.000	0.046	0.000	0.092	0.275	0.000	0.000	0.000	0.413
E	0.000	0.000	0.046	0.138	0.046	0.229	0.000	0.000	0.000	0.459
ESE	0.000	0.046	0.046	0.367	0.183	0.550	0.550	0.046	0.000	1.789
SE	0.000	0.000	0.550	0.275	0.275	0.734	1.422	0.321	0.046	3.624
SSE	0.000	0.000	0.688	0.367	0.138	0.505	1.101	0.550	0.000	3.349
S	0.000	0.046	0.367	0.459	0.367	0.550	0.688	0.138	0.000	2.615
SSW	0.000	0.000	0.138	0.229	0.321	0.596	0.367	0.046	0.000	1.697
SW	0.000	0.000	0.321	0.505	0.505	0.734	0.505	0.000	0.000	2.569
WSW	0.000	0.000	0.321	0.780	0.275	0.734	0.642	0.000	0.000	2.752
W	0.000	0.046	0.183	0.688	0.459	0.917	0.321	0.000	0.000	2.615
WNW	0.000	0.000	0.000	0.275	0.550	1.835	0.459	0.046	0.000	3.165
NW	0.000	0.000	0.183	0.275	0.642	1.009	0.642	0.229	0.000	2.982
NNW	0.000	0.000	0.000	0.138	0.321	1.101	0.688	0.183	0.000	2.431
SUBTOTAL	0.000	0.183	3.119	4.771	4.771	12.385	9.128	1.927	0.138	36.422

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS D	794
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	794
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 9.92

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.229	0.321	0.688	1.101	0.092	0.000	2.431
NNE	0.000	0.000	0.046	0.046	0.046	0.688	1.239	0.642	0.000	2.706
NE	0.000	0.000	0.046	0.046	0.046	0.367	0.413	0.321	0.000	1.239
ENE	0.000	0.000	0.000	0.046	0.046	0.183	0.138	0.000	0.000	0.413
E	0.000	0.000	0.092	0.000	0.046	0.321	0.046	0.000	0.000	0.505
ESE	0.000	0.000	0.046	0.183	0.092	0.734	0.229	0.000	0.000	1.284
SE	0.000	0.000	0.000	0.092	0.183	0.872	0.826	0.138	0.000	2.110
SSE	0.000	0.000	0.092	0.183	0.275	1.284	1.239	0.550	0.046	3.670
S	0.000	0.046	0.138	0.321	0.688	0.872	0.734	0.550	0.138	3.486
SSW	0.000	0.046	0.046	0.275	0.413	0.734	0.321	0.046	0.000	1.881
SW	0.000	0.000	0.000	0.229	0.505	0.780	0.550	0.000	0.000	2.064
WSW	0.000	0.000	0.229	0.550	0.275	0.413	0.046	0.000	0.000	1.514
W	0.000	0.000	0.138	0.138	0.092	0.642	0.505	0.000	0.000	1.514
WNW	0.000	0.000	0.046	0.046	0.229	0.596	0.183	0.000	0.000	1.101
NW	0.000	0.000	0.183	0.183	0.046	0.367	0.229	0.138	0.000	1.147
NNW	0.000	0.000	0.092	0.092	0.275	0.688	0.642	0.183	0.000	1.972
SUBTOTAL	0.000	0.092	1.193	2.661	3.578	10.229	8.440	2.661	0.183	29.037

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS E	633
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	633
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 11.32

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.046	0.046	0.046	0.229	0.183	0.550	0.138	0.000	1.239
NNE	0.000	0.000	0.000	0.092	0.183	0.275	0.550	0.596	0.000	1.697
NE	0.000	0.000	0.046	0.000	0.046	0.321	0.826	0.092	0.000	1.330
ENE	0.000	0.000	0.000	0.046	0.046	0.275	0.275	0.000	0.000	0.642
E	0.000	0.046	0.000	0.138	0.092	0.275	0.046	0.000	0.000	0.596
ESE	0.000	0.000	0.046	0.046	0.229	0.138	0.183	0.000	0.000	0.642
SE	0.000	0.000	0.046	0.321	0.046	0.596	0.046	0.000	0.000	1.055
SSE	0.000	0.000	0.046	0.092	0.138	0.688	0.138	0.092	0.000	1.193
S	0.000	0.000	0.092	0.092	0.092	0.550	0.367	0.000	0.000	1.193
SSW	0.000	0.000	0.000	0.046	0.183	0.550	0.321	0.046	0.000	1.147
SW	0.000	0.000	0.138	0.183	0.229	0.183	0.046	0.000	0.000	0.780
WSW	0.000	0.000	0.138	0.092	0.046	0.046	0.046	0.000	0.000	0.367
W	0.000	0.000	0.000	0.046	0.092	0.092	0.183	0.000	0.000	0.413
WNW	0.000	0.000	0.046	0.138	0.321	0.183	0.092	0.000	0.000	0.780
NW	0.000	0.000	0.000	0.000	0.183	0.138	0.000	0.000	0.000	0.321
NNW	0.000	0.000	0.046	0.138	0.275	0.046	0.229	0.000	0.000	0.734
SUBTOTAL	0.000	0.092	0.688	1.514	2.431	4.541	3.899	0.963	0.000	14.128

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS F	308
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	308
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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

MEAN WIND SPEED = 10.54

DATE PRINTED: 2012/08/20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - JUN 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.046	0.046	0.229	0.000	0.000	0.321
NNE	0.000	0.000	0.046	0.046	0.000	0.046	0.367	0.138	0.000	0.642
NE	0.000	0.000	0.046	0.000	0.046	0.092	0.229	0.138	0.000	0.550
ENE	0.000	0.046	0.092	0.138	0.000	0.321	0.138	0.000	0.000	0.734
E	0.000	0.046	0.000	0.138	0.000	0.321	0.092	0.000	0.000	0.596
ESE	0.000	0.000	0.092	0.092	0.092	0.138	0.046	0.000	0.000	0.459
SE	0.000	0.000	0.183	0.046	0.046	0.000	0.000	0.000	0.000	0.275
SSE	0.000	0.000	0.046	0.000	0.000	0.138	0.000	0.000	0.000	0.183
S	0.000	0.000	0.092	0.000	0.000	0.046	0.046	0.000	0.000	0.183
SSW	0.000	0.000	0.000	0.046	0.046	0.046	0.046	0.000	0.000	0.183
SW	0.000	0.000	0.092	0.000	0.046	0.046	0.000	0.000	0.000	0.183
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	0.046	0.000	0.000	0.000	0.000	0.046
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	0.000	0.046	0.046	0.000	0.000	0.000	0.092
NNW	0.000	0.000	0.046	0.046	0.321	0.092	0.046	0.000	0.000	0.550
SUBTOTAL	0.000	0.092	0.780	0.550	0.734	1.422	1.239	0.275	0.000	5.092

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2180
TOTAL HOURS OF STABILITY CLASS G	111
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	111
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2180
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: 2012/08/20

MEAN WIND SPEED = 9.52

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 9C

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR ELEVATED RELEASES

THIRD QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	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	0.102	0.000	0.000	0.000	0.102
SE	0.000	0.000	0.000	0.000	0.051	0.511	0.102	0.000	0.000	0.664
SSE	0.000	0.000	0.000	0.000	0.255	0.153	0.000	0.000	0.000	0.409
S	0.000	0.000	0.000	0.051	0.000	0.204	0.051	0.000	0.000	0.306
SSW	0.000	0.000	0.000	0.000	0.000	0.409	0.153	0.000	0.000	0.562
SW	0.000	0.000	0.000	0.000	0.051	0.204	0.000	0.000	0.000	0.255
WSW	0.000	0.000	0.000	0.051	0.153	0.051	0.000	0.000	0.000	0.255
W	0.000	0.000	0.000	0.000	0.000	0.051	0.000	0.000	0.000	0.051
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	0.102	0.511	1.685	0.306	0.000	0.000	2.605

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1958
TOTAL HOURS OF STABILITY CLASS A	51
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	51
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1958
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: 2012/11/19

MEAN WIND SPEED = 9.70

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	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	0.051	0.000	0.000	0.000	0.051
SE	0.000	0.000	0.000	0.102	0.102	0.153	0.051	0.051	0.000	0.460
SSE	0.000	0.000	0.000	0.051	0.051	0.051	0.051	0.000	0.000	0.204
S	0.000	0.000	0.000	0.000	0.000	0.358	0.102	0.051	0.000	0.511
SSW	0.000	0.000	0.000	0.102	0.051	0.204	0.153	0.000	0.000	0.511
SW	0.000	0.000	0.000	0.102	0.051	0.102	0.051	0.000	0.000	0.306
WSW	0.000	0.000	0.000	0.051	0.204	0.051	0.000	0.000	0.000	0.306
W	0.000	0.000	0.000	0.000	0.102	0.460	0.000	0.000	0.000	0.562
WNW	0.000	0.000	0.000	0.000	0.000	0.102	0.102	0.000	0.000	0.204
NW	0.000	0.000	0.000	0.000	0.000	0.051	0.051	0.000	0.000	0.102
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	0.409	0.562	1.583	0.562	0.102	0.000	3.218

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1958
TOTAL HOURS OF STABILITY CLASS B	63
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	63
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1958
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: 2012/11/19

MEAN WIND SPEED = 9.74

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.204	0.000	0.000	0.000	0.204
NNE	0.000	0.000	0.000	0.000	0.000	0.153	0.000	0.000	0.000	0.153
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	0.051	0.000	0.000	0.000	0.000	0.000	0.051
ESE	0.000	0.000	0.000	0.000	0.000	0.051	0.051	0.000	0.000	0.102
SE	0.000	0.000	0.051	0.153	0.255	0.204	0.306	0.000	0.000	0.970
SSE	0.000	0.000	0.102	0.153	0.000	0.051	0.153	0.051	0.000	0.511
S	0.000	0.000	0.000	0.255	0.000	0.409	0.204	0.000	0.000	0.868
SSW	0.000	0.000	0.000	0.204	0.051	0.153	0.102	0.051	0.000	0.562
SW	0.000	0.000	0.000	0.153	0.204	0.358	0.000	0.051	0.000	0.766
WSW	0.000	0.000	0.000	0.153	0.102	0.204	0.000	0.000	0.000	0.460
W	0.000	0.000	0.000	0.204	0.511	0.306	0.000	0.000	0.000	1.021
WNW	0.000	0.000	0.000	0.000	0.102	0.460	0.102	0.000	0.000	0.664
NW	0.000	0.000	0.000	0.000	0.051	0.000	0.204	0.000	0.000	0.255
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.051	0.000	0.051
SUBTOTAL	0.000	0.000	0.153	1.328	1.277	2.554	1.124	0.204	0.000	6.639

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1958
TOTAL HOURS OF STABILITY CLASS C	130
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	130
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1958
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: 2012/11/19

MEAN WIND SPEED = 9.16

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.153	0.204	0.664	0.613	0.000	0.000	0.000	1.634
NNE	0.000	0.000	0.102	0.204	0.051	0.562	0.051	0.051	0.000	1.021
NE	0.000	0.000	0.255	0.102	0.255	0.255	0.153	0.051	0.000	1.073
ENE	0.000	0.000	0.153	0.409	0.153	0.204	0.000	0.000	0.000	0.919
E	0.000	0.000	0.153	0.102	0.102	0.102	0.000	0.000	0.000	0.460
ESE	0.000	0.000	0.153	0.204	0.153	0.409	0.460	0.153	0.000	1.532
SE	0.000	0.051	0.204	0.511	0.460	1.175	1.124	0.817	0.000	4.341
SSE	0.000	0.000	0.409	0.613	0.409	1.685	1.430	0.358	0.000	4.903
S	0.000	0.000	0.613	0.715	0.766	2.247	1.073	0.102	0.000	5.516
SSW	0.000	0.051	0.460	0.919	1.021	2.094	0.664	0.102	0.051	5.363
SW	0.000	0.000	0.409	0.409	0.868	1.073	0.409	0.051	0.000	3.218
WSW	0.000	0.000	0.358	0.562	0.766	1.021	0.051	0.000	0.000	2.758
W	0.000	0.000	0.306	0.562	1.124	2.298	0.306	0.000	0.000	4.597
WNW	0.000	0.000	0.102	0.460	0.511	1.532	0.102	0.051	0.000	2.758
NW	0.000	0.000	0.051	0.204	0.204	0.868	0.102	0.051	0.000	1.481
NNW	0.000	0.000	0.102	0.306	0.306	0.409	0.204	0.000	0.000	1.328
SUBTOTAL	0.000	0.102	3.984	6.486	7.814	16.547	6.129	1.788	0.051	42.901

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1958
TOTAL HOURS OF STABILITY CLASS D	840
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	840
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1958
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: 2012/11/19

MEAN WIND SPEED = 8.84

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.051	0.153	0.255	0.306	0.153	0.000	0.000	0.919
NNE	0.000	0.000	0.153	0.153	0.306	0.562	0.715	0.051	0.000	1.941
NE	0.000	0.000	0.102	0.204	0.204	0.358	0.409	0.102	0.000	1.379
ENE	0.000	0.000	0.153	0.000	0.153	0.306	0.102	0.051	0.000	0.766
E	0.000	0.000	0.153	0.051	0.102	0.562	0.409	0.000	0.000	1.277
ESE	0.000	0.000	0.000	0.204	0.051	0.919	0.970	0.102	0.000	2.247
SE	0.000	0.000	0.051	0.358	0.409	1.532	0.460	0.000	0.000	2.809
SSE	0.000	0.000	0.204	0.409	0.664	1.328	0.204	0.051	0.000	2.860
S	0.000	0.000	0.358	0.255	0.460	0.817	0.715	0.000	0.000	2.605
SSW	0.000	0.051	0.358	0.153	0.255	0.817	0.409	0.000	0.000	2.043
SW	0.000	0.000	0.102	0.102	0.358	0.919	0.255	0.051	0.000	1.788
WSW	0.000	0.051	0.255	0.255	0.204	0.715	0.102	0.000	0.000	1.583
W	0.000	0.000	0.000	0.358	0.358	1.685	0.358	0.000	0.000	2.758
WNW	0.000	0.000	0.102	0.153	0.511	1.021	0.051	0.000	0.000	1.839
NW	0.000	0.000	0.051	0.204	0.102	0.153	0.102	0.051	0.000	0.664
NNW	0.000	0.051	0.153	0.000	0.204	0.460	0.255	0.000	0.000	1.124
SUBTOTAL	0.000	0.153	2.247	3.013	4.597	12.462	5.669	0.460	0.000	28.601

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1958
TOTAL HOURS OF STABILITY CLASS E	560
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	560
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1958
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: 2012/11/19

MEAN WIND SPEED = 9.24

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.051	0.153	0.153	0.358	0.000	0.000	0.715
NNE	0.000	0.000	0.000	0.051	0.000	0.306	0.562	0.306	0.000	1.226
NE	0.000	0.000	0.051	0.051	0.102	0.409	0.204	0.102	0.000	0.919
ENE	0.000	0.000	0.051	0.051	0.204	0.204	0.460	0.051	0.000	1.021
E	0.000	0.000	0.051	0.000	0.153	0.102	0.102	0.000	0.000	0.409
ESE	0.000	0.000	0.000	0.000	0.204	0.460	0.306	0.000	0.000	0.970
SE	0.000	0.000	0.102	0.358	0.255	0.970	0.409	0.000	0.000	2.094
SSE	0.000	0.000	0.153	0.102	0.204	0.511	0.051	0.000	0.000	1.021
S	0.000	0.000	0.153	0.102	0.153	0.409	0.102	0.000	0.000	0.919
SSW	0.000	0.000	0.051	0.306	0.051	0.204	0.102	0.000	0.000	0.715
SW	0.000	0.000	0.000	0.000	0.000	0.102	0.000	0.000	0.000	0.102
WSW	0.000	0.000	0.051	0.000	0.000	0.102	0.000	0.000	0.000	0.153
W	0.000	0.000	0.051	0.102	0.000	0.051	0.000	0.000	0.000	0.204
WNW	0.000	0.000	0.000	0.102	0.102	0.051	0.000	0.000	0.000	0.255
NW	0.000	0.000	0.051	0.000	0.051	0.000	0.000	0.000	0.000	0.102
NNW	0.000	0.000	0.000	0.102	0.102	0.051	0.051	0.000	0.000	0.306
SUBTOTAL	0.000	0.000	0.766	1.379	1.736	4.086	2.707	0.460	0.000	11.134

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1958
TOTAL HOURS OF STABILITY CLASS F	218
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	218
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1958
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: 2012/11/19

MEAN WIND SPEED = 9.90

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - SEP 30, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.051	0.153	0.000	0.000	0.000	0.000	0.000	0.000	0.204
NNE	0.000	0.000	0.051	0.102	0.000	0.051	0.204	0.051	0.000	0.460
NE	0.000	0.000	0.051	0.102	0.000	0.306	0.358	0.102	0.000	0.919
ENE	0.000	0.000	0.000	0.000	0.051	0.358	0.102	0.000	0.000	0.511
E	0.000	0.000	0.051	0.000	0.051	0.153	0.102	0.000	0.000	0.358
ESE	0.000	0.000	0.000	0.000	0.102	0.000	0.000	0.000	0.000	0.102
SE	0.000	0.051	0.051	0.000	0.051	0.000	0.000	0.000	0.000	0.153
SSE	0.000	0.000	0.153	0.051	0.051	0.000	0.000	0.000	0.000	0.255
S	0.000	0.000	0.153	0.051	0.102	0.204	0.000	0.000	0.000	0.511
SSW	0.000	0.051	0.102	0.255	0.102	0.102	0.000	0.000	0.000	0.613
SW	0.000	0.051	0.051	0.153	0.000	0.000	0.000	0.000	0.000	0.255
WSW	0.000	0.051	0.204	0.051	0.051	0.000	0.000	0.000	0.000	0.358
W	0.000	0.000	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.051
WNW	0.000	0.000	0.102	0.000	0.000	0.000	0.000	0.000	0.000	0.102
NW	0.000	0.000	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.051
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.255	1.226	0.766	0.562	1.175	0.766	0.153	0.000	4.903

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	1958
TOTAL HOURS OF STABILITY CLASS G	96
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	96
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	1958
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: 2012/11/19

MEAN WIND SPEED = 7.24

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

BROWNS FERRY NUCLEAR PLANT

2012 METEOROLOGICAL DATA

TABLE 9D

JOINT FREQUENCY DISTRIBUTION IN PERCENT

FOR ELEVATED RELEASES

FOURTH QUARTER

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	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	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.095	0.000	0.095
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	0.047	0.000	0.000	0.000	0.047
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	0.047	0.000	0.095	0.000	0.142

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS A	3
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	3
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 16.60

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.095
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	0.095	0.047	0.000	0.000	0.000	0.142
SSE	0.000	0.000	0.000	0.047	0.047	0.000	0.047	0.000	0.000	0.142
S	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.000	0.095
SSW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
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	0.047	0.189	0.189	0.095	0.000	0.000	0.521

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS B	11
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	11
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 9.31

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.142	0.000	0.000	0.142
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	0.047	0.095	0.000	0.000	0.000	0.142
SE	0.000	0.000	0.000	0.047	0.189	0.000	0.047	0.000	0.000	0.284
SSE	0.000	0.000	0.000	0.000	0.095	0.047	0.047	0.000	0.000	0.189
S	0.000	0.000	0.000	0.142	0.047	0.189	0.000	0.000	0.000	0.379
SSW	0.000	0.000	0.000	0.047	0.142	0.142	0.000	0.000	0.000	0.332
SW	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.047
WSW	0.000	0.000	0.000	0.000	0.047	0.000	0.095	0.047	0.000	0.189
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	0.142	0.095	0.284
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	0.047	0.000	0.000	0.000	0.047
SUBTOTAL	0.000	0.000	0.047	0.237	0.568	0.521	0.379	0.189	0.095	2.037

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS C	43
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	43
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 10.91

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.237	0.379	1.374	1.516	0.047	0.000	3.553
NNE	0.000	0.000	0.142	0.237	0.853	1.705	0.474	0.047	0.000	3.458
NE	0.000	0.000	0.095	0.237	0.284	0.853	0.142	0.000	0.000	1.611
ENE	0.000	0.000	0.047	0.047	0.000	0.332	0.047	0.000	0.000	0.474
E	0.000	0.000	0.095	0.095	0.047	0.095	0.000	0.000	0.000	0.332
ESE	0.000	0.047	0.142	0.426	0.189	0.095	0.095	0.000	0.000	0.995
SE	0.000	0.000	0.426	0.711	0.379	0.379	0.663	0.142	0.000	2.700
SSE	0.000	0.000	0.568	0.426	0.379	0.426	0.474	0.284	0.284	2.842
S	0.000	0.000	0.379	0.189	0.284	1.090	0.805	0.426	0.142	3.316
SSW	0.000	0.000	0.379	0.189	0.095	0.474	0.332	0.189	0.000	1.658
SW	0.000	0.000	0.379	0.142	0.047	0.616	0.332	0.142	0.047	1.705
WSW	0.000	0.095	0.189	0.284	0.000	0.332	0.237	0.142	0.047	1.326
W	0.000	0.047	0.332	0.426	0.189	1.184	0.379	0.189	0.568	3.316
WNW	0.000	0.000	0.095	0.142	0.237	1.326	0.568	1.374	0.853	4.595
NW	0.000	0.000	0.095	0.095	0.426	1.042	1.279	0.853	0.095	3.884
NNW	0.000	0.047	0.000	0.047	0.047	1.611	0.900	0.047	0.000	2.700
SUBTOTAL	0.000	0.237	3.363	3.932	3.837	12.932	8.243	3.884	2.037	38.465

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS D	812
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	812
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 11.54

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.047	0.095	0.521	0.805	0.000	0.000	1.468
NNE	0.000	0.000	0.000	0.000	0.095	1.326	1.326	0.142	0.000	2.890
NE	0.000	0.000	0.047	0.000	0.142	0.426	0.853	0.095	0.000	1.563
ENE	0.000	0.000	0.095	0.047	0.142	0.474	0.142	0.095	0.000	0.995
E	0.000	0.000	0.000	0.189	0.095	0.189	0.237	0.047	0.000	0.758
ESE	0.000	0.000	0.142	0.095	0.095	0.426	0.142	0.047	0.047	0.995
SE	0.000	0.000	0.189	0.142	0.474	0.568	0.616	0.426	0.189	2.605
SSE	0.000	0.000	0.000	0.000	0.332	2.842	1.611	1.090	0.616	6.490
S	0.000	0.047	0.095	0.142	0.332	2.795	2.321	1.374	0.095	7.200
SSW	0.000	0.000	0.047	0.000	0.189	0.947	1.042	0.379	0.047	2.653
SW	0.000	0.000	0.000	0.047	0.142	0.521	0.711	0.142	0.000	1.563
WSW	0.000	0.000	0.000	0.000	0.095	0.379	0.332	0.000	0.000	0.805
W	0.000	0.000	0.047	0.047	0.095	0.568	0.237	0.000	0.000	0.995
WNW	0.000	0.047	0.047	0.047	0.000	0.426	0.426	0.000	0.047	1.042
NW	0.000	0.000	0.047	0.000	0.047	0.426	0.663	0.095	0.000	1.279
NNW	0.000	0.000	0.095	0.000	0.095	0.521	0.805	0.142	0.000	1.658
SUBTOTAL	0.000	0.095	0.853	0.805	2.463	13.359	12.269	4.074	1.042	34.960

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS E	738
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	738
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 12.90

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.142	0.379	0.000	0.000	0.521
NNE	0.000	0.000	0.000	0.047	0.000	0.284	1.326	0.237	0.000	1.895
NE	0.000	0.000	0.095	0.000	0.189	0.426	0.332	0.000	0.000	1.042
ENE	0.000	0.000	0.000	0.095	0.000	0.379	0.189	0.000	0.000	0.663
E	0.000	0.000	0.000	0.142	0.095	0.142	0.047	0.000	0.000	0.426
ESE	0.000	0.000	0.047	0.000	0.284	0.189	0.000	0.000	0.000	0.521
SE	0.000	0.000	0.095	0.189	0.284	0.521	0.095	0.000	0.000	1.184
SSE	0.000	0.000	0.047	0.237	0.189	1.895	1.137	0.095	0.000	3.600
S	0.000	0.000	0.000	0.142	0.189	2.463	1.374	0.000	0.000	4.169
SSW	0.000	0.000	0.095	0.000	0.189	0.521	0.284	0.000	0.000	1.090
SW	0.000	0.047	0.047	0.047	0.047	0.332	0.189	0.000	0.000	0.711
WSW	0.000	0.000	0.047	0.000	0.047	0.284	0.000	0.000	0.000	0.379
W	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
WNW	0.000	0.000	0.095	0.000	0.000	0.095	0.000	0.000	0.000	0.189
NW	0.000	0.000	0.095	0.095	0.237	0.332	0.000	0.000	0.000	0.758
NNW	0.000	0.000	0.047	0.000	0.000	0.284	0.095	0.000	0.000	0.426
SUBTOTAL	0.000	0.047	0.711	0.995	1.753	8.337	5.448	0.332	0.000	17.622

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS F	372
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	372
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 10.67

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012 BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

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, 2012 - DEC 31, 2012

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.047	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.095
NNE	0.000	0.000	0.047	0.000	0.000	0.047	0.000	0.000	0.000	0.095
NE	0.000	0.000	0.000	0.047	0.000	0.095	0.189	0.000	0.000	0.332
ENE	0.000	0.000	0.000	0.189	0.095	0.189	0.047	0.000	0.000	0.521
E	0.000	0.000	0.047	0.095	0.142	0.047	0.000	0.000	0.000	0.332
ESE	0.000	0.000	0.000	0.000	0.284	0.000	0.000	0.000	0.000	0.284
SE	0.000	0.000	0.000	0.189	0.189	0.189	0.047	0.000	0.000	0.616
SSE	0.000	0.000	0.000	0.189	0.237	1.090	0.189	0.000	0.000	1.705
S	0.000	0.000	0.095	0.142	0.095	0.379	0.142	0.000	0.000	0.853
SSW	0.000	0.047	0.047	0.047	0.000	0.000	0.047	0.000	0.000	0.189
SW	0.000	0.047	0.047	0.000	0.000	0.095	0.095	0.000	0.000	0.284
WSW	0.000	0.000	0.047	0.000	0.047	0.000	0.000	0.000	0.000	0.095
W	0.000	0.095	0.047	0.000	0.047	0.095	0.000	0.000	0.000	0.284
WNW	0.000	0.000	0.047	0.047	0.000	0.095	0.000	0.000	0.000	0.189
NW	0.000	0.000	0.000	0.095	0.047	0.095	0.000	0.000	0.000	0.237
NNW	0.000	0.000	0.047	0.095	0.000	0.000	0.000	0.000	0.000	0.142
SUBTOTAL	0.000	0.237	0.474	1.137	1.184	2.463	0.758	0.000	0.000	6.253

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2111
TOTAL HOURS OF STABILITY CLASS G	132
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	132
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2111
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: 2013/02/06

MEAN WIND SPEED = 7.85

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

ATTACHMENT 1

Deviations from ODCM Controls and Surveillance Requirements

This report is to comply with Browns Ferry Nuclear Plant Offsite Dose Calculation Manual (ODCM). The ODCM requires that all deviations be reported in the Annual Radioactive Effluent Release Report.

During the reporting period, January 1, 2012 through December 31, 2012, there was one missed compensatory sample. On January 3, 2012, a potential non-representative gaseous sample was taken from the Reactor Building Effluent Monitor (2-RM-90-250) during the performance of 0-SI-4.8.B.1.A.2 (Airborne Effluent Release Rate by Manual Sampling When a Gaseous Effluent Monitor is Inoperable). This surveillance requires sampling once every 8 hours and a flow determination once every 4 hours. When the initial sample was obtained, the compensatory sampler showed sufficient flow. After sampling, Chemistry personnel were informed that the valves upstream of the compensatory sampler were closed under a clearance (WO #112244367) to replace the moisture trap. The closed valves were the Reactor Building Exhaust (2-RTV-090-0308A), Turbine Building Exhaust (2-RTV-090-306A), and Refuel Zone Exhaust (2-RTV-090-307A). Since the compensatory sampler had sufficient flow, this indicated the closed valves had potential leak through. (PER 484911)

**2012
BROWNS FERRY NUCLEAR PLANT
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**

ATTACHMENT 2

2012 Inoperable Radiological Effluent Instrumentation Report

This report is to comply with Browns Ferry Nuclear Plant Offsite Dose Calculation Manual (ODCM) Sections 1/2.1.1 and 1/2.1.2. The ODCM requires the exertion of best efforts to return inoperable instruments to operable status within 30 days. Failure to return such instruments to an operable status within the prescribed interval requires a description in the Annual Radioactive Effluent Release Report.

During the reporting period, January 1, 2012, through December 31, 2012, there were no radioactive gaseous effluent monitoring instruments and no liquid effluent monitoring instruments out of service for greater than 30 days.