envirospec ENGINEERING, PLLC
349 Northern Blvd; Suite 3
Albany, NY 12204
Phone: 518.453.2203
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June 8, 2020

Maine DEP
Bureau of Air Quality Control
Licensing and Enforcement
17 State House Station
Augusta, Maine 04333-0017

US EPA Region 1
Air Permits, Toxics, and Indoor Programs Unit
5 Post Office Sq. Suite 100
Mail Code OEP 05-2
Boston, MA 02109-3912

Re: South Portland Terminal, LLC
170 Lincoln Street, South Portland, ME
Part 70 Air Emission License No. A-282-70-G-R Renewal

Dear Permit Reviewer;

On behalf of South Portland Terminal, LLC (Buckeye), Envirospec Engineering, PLLC is submitting this application for a Permit Renewal of the facility's Part 70 Air Emission License (Permit). The facility, an existing petroleum products storage and distribution terminal located at 170 Lincoln Street, South Portland, ME, currently operates under Part 70 Air Emission License No. A-282-70-G-R, which was issued December 11, 2015. The facility also operates under a Minor Modification Amendment (Amendment #1), A-282-70-H-A, which was issued for the facility on October 31, 2016.

The following items are included as part of this permit renewal application:

- Chapter 140 Air Emission License Application Forms
- Facility PTE

Should you have any questions please feel free to contact me at (518) 453-2203.

Sincerely,

Nicole Brower

Nicole Brower, PE
Senior Engineer
Envirospec Engineering PLLC

cc: Stephen Wing - Buckeye
Fran Lindsley-Matthews - Buckeye

Form No.	A-L-0022
Effective Date	1/16/2007
Revision No.	04
Last Revision Date	9/6/2018

CHAPTER 140
AIR EMISSION LICENSE APPLICATION FORMS
Initial Title V License or Renewal

Section A: Facility Information

Owner or Operator (*Legal name as registered with the Secretary of State*):
South Portland Terminal, LLC

Facility Site Address (*Physical, no post office boxes please*):
170 Lincoln Street

City/Town:	County:	State:	ZIP:
S Portland	Cumberland	ME	04106

Facility Description:
Facility is an existing petroleum storage and distribution terminal.

Application Type:

☐ Initial Title V License ☒ Title V Renewal

Current License # A -282 - 70 - G - R

Check When Done

☒ Application Completed
☒ Copy Sent to Town (date sent: 6/8/20)
☒ Public Noticed Published (paper name & date: Portland Press Harold; 6/2/20)
☒ Enclosed Public Notice Tear Sheet
☒ Signed Signatory Form (Section J)
☒ Copy Sent to EPA (date sent: 6/8/20)

For Department Use Only

App. Track Number(s): _____ _____ _____

Proposed License #: A - _____ - _____ - _____ - _____

Section A: Facility Information (cont.)

Facility Contact:

Name: Stephen Wing	Title: Operations Manager
Company: Buckeye Partners, LP	
Mailing Address: 170 Lincoln Street	
City/Town: S Portland	State: ME ZIP Code: 04106
Phone: 207-808-4506	email: SWing@Buckeye.com

Application Contact:

Name: Nicole Brower	Title: Senior Engineer
Company: Envirospec Engineering, PLLC	
Mailing Address: 349 Northern Blvd, Suite 2	
City/Town: Albany	State: NY ZIP Code: 12204
Phone: 518-453-2203	email: NBrower@EnvirospecEng.com

Billing Contact:

Name: Stephen Wing	Title: Operations Manager
Company: Buckeye Partners, LP	
Mailing Address: 170 Lincoln Street	
City/Town: S Portland	State: ME ZIP Code: 04106
Phone: 207-808-4506	email: SWing@Buckeye.com

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Section B: Source Overview

I. NAICS Codes

North American Industry Classification System (NAICS) Code	Description
424710	Petroleum Bulk Stations and Terminals

II. Equipment List

Add additional pages as necessary.

EXAMPLE

Emission Unit ID	Stack #	Description
PB#1	*1*	*Power Boiler #1 (example)*
C Recovery	*2*	*Recovery Boiler (example)*
Tank 3	*fugitive*	*Gasoline Storage Tank (example)*

Emission Unit ID	Stack #	Description
1	a.v.	Tank 28 - Gasoline/Ethanol/Distillate IFR Storage Tank
2	a.v.	Tank 29 - Gasoline/Ethanol/Distillate IFR Storage Tank
3	a.v.	Tank 37 - Gasoline/Ethanol/Distillate IFR Storage Tank
4	a.v.	Tank 38 - Gasoline/Ethanol/Distillate IFR Storage Tank
5	a.v.	Tank 39 - Gasoline/Ethanol/Distillate IFR Storage Tank
6	a.v.	Tank 40 - Gasoline/Ethanol/Distillate IFR Storage Tank
7	a.v.	Tank 41 - Gasoline/Ethanol/Distillate IFR Storage Tank
8	a.v.	Tank 42 - Gasoline/Ethanol/Distillate IFR Storage Tank
9	a.v.	Tank 43 - Gasoline/Ethanol/Distillate IFR Storage Tank
10	a.v.	Tank 44 - Gasoline/Ethanol/Distillate IFR Storage Tank
13	1	Loading Rack - Gasoline/Ethanol/Distillate Products

14	a.v.	Tank 30 - Gasoline/Ethanol/Distillate IFR Storage Tank
15	a.v.	Tank 32 - Distillate Storage Tank
16	a.v.	Tank 33 - Distillate Storage Tank
17	a.v.	Top Loading Distillate Fugitive Emissions

Section B: Source Overview (cont)

III. Insignificant Activities

List emission units at your facility proposed to be exempt from licensing as insignificant activities pursuant to 06-096 C.M.R. ch. 140, Appendix B, Section B.

Emission Unit ID	Description	Reason for Exemption
18	Tank 16-Distillate Storage Tank	(B)(1) - PTE < thresholds
19	Tank 17-Distillate Storage Tank	(B)(1) - PTE < thresholds
20	Tank 18-Distillate Storage Tank	(B)(1) - PTE < thresholds
21	Tank 19-Distillate Storage Tank	(B)(1) - PTE < thresholds
22	Tank 26-Distillate Storage Tank	(B)(1) - PTE < thresholds
23	Tank 27-Distillate Storage Tank	(B)(1) - PTE < thresholds
24	Tank 31-Oil/Water Storage Tank	(B)(1) - PTE < thresholds
25	Facility Fugitives	(B)(1) - PTE < thresholds
26	Garage Boiler 1&2 (0.35 MMBtu/hr, each)	(B)(2) - Heat input < 1.7 MMBtu/hr
27	Office Boiler (0.28 MMBtu/hr)	(B)(2) - Heat input < 1.7 MMBtu/hr
28	Pipeline Boiler (0.64 MMBtu/hr)	(B)(2) - Heat input < 1.7 MMBtu/hr
29	Tank A1 - Additive Storage Tank	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg

30	Tank A2 - Additive Storage Tank	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg
31	Tank A3 - Additive Storage Tank	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg
32	Tank A4 - Additive Storage Tank	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg
33	Tank A5 - Additive Storage Tank	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg
34	Tank A6 - Additive Storage Tank	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg
35	Tank A7 - Additive Storage Tank	(B)(1) - PTE < thresholds
36	Tank A8 - Additive Storage Tank	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg
37	Tank A9 - Additive Storage Tank	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg
38	No.2 Fuel Oil Tanks for Garage Boiler (2- 330 gal ASTs)	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg
39	No.2 Fuel Oil Tanks for Office Boiler (2- 275 gal ASTs)	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg
40	No.2 Fuel Oil Tanks for Pipeline Boiler (2- 275 gal ASTs)	(B)(7) - ≤ 10K gal, vp ≤ 80 mmHg

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Section C: Facility Emissions and General Applicable Requirements

I. Criteria Pollutants

This facility has the potential to emit more than 100 ton/year of the following regulated pollutants (check all that apply):

- ☐ Particulate Matter (PM)
- ☐ Particulate Matter less than 10 micrometers (PM_{10})
- ☐ Particulate Matter less than 2.5 micrometers ($PM_{2.5}$)
- ☐ Sulfur Dioxide (SO_2)
- ☐ Nitrogen Oxides (NO_x)
- ☐ Carbon Monoxide (CO)
- ☒ Volatile Organic Compounds (VOC)

II. Hazardous Air Pollutants

(as defined by: EPA, Office of Air Quality, Planning & Standards Section 112 Hazardous Air Pollutants List)

This facility has the potential to emit:

- ○ ≥ 10 Tons per year of any single Hazardous Air Pollutant
- ○ ≥ 25 Tons per year of all Hazardous Air Pollutants combined
- ◉ None of the above

III. Greenhouse Gases (GHGs)

(as defined by: 06-096 C.M.R. ch. 100, Definitions Regulation)

This facility has the potential to emit 11,263 ton/year of GHG.

Section C: Facility Emissions and General Applicable Requirements (cont)

IV. Applicable State Regulations

Indicate any STATE rules that may be applicable to your facility by checking the associated box.

	Citation	Title
☒	06-096 C.M.R. 101	Visible Emissions
☐	06-096 C.M.R. 103	Fuel Burning Equipment Particulate Emission Standard
☒	06-096 C.M.R. 104	Incinerator Particulate Emission Standard
☐	06-096 C.M.R. 105	General Process Source Particulate Emission Standard
☒	06-096 C.M.R. 106	Low Sulfur Fuel Regulation
☒	06-096 C.M.R. 111	Petroleum Liquid Storage Vapor Control
☒	06-096 C.M.R. 112	Bulk Terminal Petroleum Liquid Transfer Requirements
☐	06-096 C.M.R. 117	Source Surveillance
☐	06-096 C.M.R. 118	Gasoline Dispensing Facilities Vapor Control
☐	06-096 C.M.R. 121	Emission Limitations and Emission Testing Resource Recovery Facilities
☐	06-096 C.M.R. 123	Paper Coating Regulation
☐	06-096 C.M.R. 124	Total Reduced Sulfur Control from Kraft Mills
☐	06-096 C.M.R. 126	Capture Efficiency Test Procedures
☐	06-096 C.M.R. 129	Surface Coating Facilities
☐	06-096 C.M.R. 130	Solvent Degreasers
☐	06-096 C.M.R. 132	Graphic Arts – Rotogravure and Flexography
☐	06-096 C.M.R. 133	Petroleum Liquids Transfer Vapor Recovery at Bulk Gasoline Plants
☒	06-096 C.M.R. 134	Reasonably Available Control Technology for Facilities that emit Volatile Organic Compounds
☒	06-096 C.M.R. 137	Emission Statements
☐	06-096 C.M.R. 138	Reasonably Available Control Technology for Facilities that emit Nitrogen Oxides
☒	06-096 C.M.R. 140	Part 70 Air Emission License Regulations
☐	06-096 C.M.R. 145	NOx Control Equipment
☐	06-096 C.M.R. 153	Mobile Equipment Repair and Refinishing
☐	06-096 C.M.R. 154	Control of Volatile Organic Compounds from Flexible Package Printing
☐	06-096 C.M.R. 159	Control of Volatile Organic Compounds from Adhesives and Sealants
☐	06-096 C.M.R. 161	Offset Lithography and Letterpress Printing
☐	06-096 C.M.R. 162	Control of Fiberglass Boat Manufacturing Materials
☐	06-096 C.M.R. 166	Industrial Cleaning Solvents
☒	Other (list)	110, 115, 119, 120, 143, 144
☐	Other (list)	

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Section C: Facility Emissions and General Applicable Requirements (cont)

V. Applicable Federal Regulations

Indicate any Federal rules that may be applicable to any equipment at the facility by checking the associated box.

☒ 40 C.F.R. Part 60 (NSPS) – List all subparts that apply:
Subpart XX

☒ 40 C.F.R. Part 63 (NESHAP) – List all subparts that apply:
Subpart BBBBBB

☐ 40 C.F.R. Part 64 (CAM) List emission units subject to CAM:

☐ 40 C.F.R. Part 68 (Chemical Accident Prevention Provisions)

☒ Part 70 (State Operating Permit Program for Part 70 Sources)
☐ Part 72 (Acid Rain Program) - List all applicable emission units:

☐ 40 C.F.R. Part 75 (Continuous Emission Monitoring for Acid Rain Sources)
☒ 40 C.F.R. Part 82 (Protection of Stratospheric Ozone)
☐ 40 C.F.R. Part 98 (Mandatory Greenhouse Gas Reporting)
☐ Other _____

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Section F: Process Equipment

Emission Unit ID/Name: 13

I. Equipment Description

Type of Equipment (Printing press, Reactor, etc.)	Petroleum Liquid Tank Truck Loading Rack
Manufacturer	NA
Model	NA
Max Process Rate	9600 gal/min
Date of Manufacture	June 1996
Date of Installation	August 1996
40 C.F.R. Part 60 Applicability	○ No ◉ Yes Subpart(s): Subpart XX
40 C.F.R. Part 63 Applicability	○ No ◉ Yes Subpart(s): Subpart BBBBBB

II. BACT/BPT

◉ BACT was established <15 Years Ago

○ BPT analysis is attached

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Section F: Process Equipment

Emission Unit ID/Name: 13

III. Associated Fuel Burning Equipment

Complete this section for any fuel burning equipment integral to the process unit, for example, a dryer. Do not use this section for boilers or other fuel burning equipment identified as a separate emission unit in Sections D, E, or G.

Duplicate page as needed.

Type of Equipment: (Dryer burner, process heater, etc.)	Vapor Combustion Unit			
Fuel type/grade	Max. Heat Input (MMBtu/hr)	Fuel sulfur content (%) (if applicable)	Max fuel firing rate (gal/hr, scfm, tons/hr, etc.)	Avg. Moisture Content (%) (if applicable)
Natural Gas	107	-	21,600 scfh	-

Type of Equipment:
(Dryer burner, process heater, etc.)

Fuel type/grade	Max. Heat Input (MMBtu/hr)	Fuel sulfur content (%) (if applicable)	Max fuel firing rate (gal/hr, scfm, tons/hr, etc.)	Avg. Moisture Content (%) (if applicable)

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Section F: Process Equipment (cont)

Emission Unit ID/Name (cont): 13

IV. Control Equipment

Duplicate page as needed.

Type of Control Equipment (e.g. Cyclone, Baghouse, RTO, etc.)	Vapor Combustion Unit
Manufacturer	John Zink
Install Date	August 1996
Pollutant(s) Controlled	VOCs
Capture Efficiency	>98 %
Control Efficiency	>98 %

Type of Control Equipment (e.g. Cyclone, Baghouse, RTO, etc.)	
Manufacturer	
Install Date	
Pollutant(s) Controlled	
Capture Efficiency	%
Control Efficiency	%

Type of Control Equipment (e.g. Cyclone, Baghouse, RTO, etc.)	
Manufacturer	
Install Date	
Pollutant(s) Controlled	
Capture Efficiency	%
Control Efficiency	%

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Section F: Process Equipment (cont)

Emission Unit ID/Name (cont): 13

V. Associated Chemical Usage

Duplicate page as needed to accommodate all chemical usage for this Emission Unit.

Chemical Name: (e.g. ink, blanket wash, paint, etc.)	NA	
Actual Usage (gal/year or lb/year):		
Density of Chemical (lb/gal):		
Avg. Percent VOC:		
List each HAP below:		Weight Percentage
1.		
2.		
3.		
4.		
5.		
Total HAP Emissions (lb/year):		
Total VOC Emissions (lb/year):		

Chemical Name: (e.g. ink, blanket wash, paint, etc.)		
Actual Usage (gal/year or lb/year):		
Density of Chemical (lb/gal):		
Avg. Percent VOC:		
List each HAP below:		Weight Percentage
1.		
2.		
3.		
4.		
5.		
Total HAP Emissions (lb/year):		
Total VOC Emissions (lb/year):		

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Section F: Process Equipment (cont)

Emission Unit ID/Name (cont): 13

VI. Monitoring

a. Is this Unit subject to Compliance Assurance Monitoring (CAM) under 40 CFR Part 64?

○ Yes ◉ No

If yes, for what pollutant(s)? _____

b. This Unit is equipped with the following Certified Continuous Emission Monitoring Systems:

☐ Opacity ☐ TRS ☐ NH_3
☐ SO_2 ☐ Mercury
☐ NO_x ☐ O_2 ☐ Other: _____
☐ CO ☐ CO_2

c. Parameter Monitors

Parameter Monitored	Unit of Measure	Monitoring Tool/Method	Monitoring Frequency	Recording Frequency

VII. Stack Data

How are the emissions released?	○ Fugitive ◉ Stack

For stack emissions only:

Stack ID	VCU
Orientation	◉ Vertical ○ Horizontal
Rain Cap	○ Yes ◉ No
Height (feet above ground level)	50
Inside Diameter (feet)	8.5
Gas Exit Flow Rate (acfm)	
Gas Exit Velocity (ft/sec)	up to 60
Exit Temperature (deg F)	1100 - 1400

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Section H: Liquid Organic Material Storage

Emission Unit ID/Name: _____

I. Equipment Description

Material Stored	
Location	☐ Above Ground ☐ Below Ground
Type	☐ Internal floating roof ☐ External floating roof ☐ Fixed roof (no internal floating roof) ☐ Other
Date of Installation	
Color	
Height (feet)	
Diameter (feet)	
Capacity (gallons)	
Annual throughput	
Loading Rack Used?	☐ No ☐ Yes Unit ID/Name:
Product Transfers To	☐ Trucks ☐ Ships/barges/marine vessels ☐ Rail car ☐ Other:
40 C.F.R. Part 60 Applicability	☐ No ☐ Yes Subpart(s):
40 C.F.R. Part 63 Applicability	☐ No ☐ Yes Subpart(s):

TABLE 1

SEE

II. BACT/BPT

☐ BACT was established <15 Years Ago

☐ BPT analysis is attached

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Section H: Liquid Organic Material Storage (cont)

Emission Unit ID/Name (cont): _____

III. Monitoring

a. Is this Unit subject to Compliance Assurance Monitoring (CAM) under 40 CFR Part 64?

☐ Yes ☐ No

If yes, for what pollutant(s)? _____

b. Parameter Monitors

Parameter Monitored	Unit of Measure	Monitoring Tool/Method	Monitoring Frequency	Recording Frequency

SEE TABLE 1

Table 1 Liquid Organic Material Store

Supplement to Chapter 140 Application Form, Section H

Emission Unit ID	1	2	3	4	5	6	7	8	9	10	14	15	16
Tank #	Tank 28	Tank 29	Tank 37	Tank 38	Tank 39	Tank 40	Tank 41	Tank 42	Tank 43	Tank 44	Tank 30	Tank 32	Tank 33
I. Equipment Description													
a. Location	Aboveground	Aboveground	Aboveground	Aboveground	Aboveground	Aboveground	Aboveground	Aboveground	Aboveground	Aboveground	Aboveground	Aboveground	Aboveground
b. Type *(IFR = Internal Floating Roof, VFR = Vertical Fixed Roof)*	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	VFR	VFR
c. Date of Installation	1923	1923	1948	1948	1948	1948	1948	1948	1958	1958	1927	1930	1940
i. 40 CFR 60 Applicability (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N	N
40 CFR 60 Subpart(s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ii. 40 CFR 63 Applicability (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N
40 CFR 63 Subpart(s)	A, BBBBBB	A, BBBBBB	A, BBBBBB	A, BBBBBB	A, BBBBBB	A, BBBBBB	A, BBBBBB	A, BBBBBB	A, BBBBBB	A, BBBBBB	A, BBBBBB	N/A	N/A
d. Color	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray	White/ Light Gray
e. Height (feet)	40	40	47.6	47.6	35.1	35.1	35.1	35.1	47.6	47.6	45.4	45.5	45.4
f. Diameter (feet)	100	100	100	100	40	40	40	40	100	125	125	125	100
g. Capacity (gallons)	2,385,600	2,228,982	2,674,308	2,675,484	310,548	310,548	310,716	310,338	2,723,784	4,263,630	3,944,766	3,945,102	2,526,552
h. Material Stored	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Petroleum Products or Ethanol	Distillate	Distillate
i. Reid Vapor Pressure (psi)	9-15	9-15	9-15	9-15	9-15	9-15	9-15	9-15	9-15	9-15	9-15	<1.5	<1.5
j. Annual Throughput (gallons)	65,118,168	65,846,473	79,001,871	79,036,611	9,173,915	9,173,915	9,178,877	9,167,911	80,463,444	125,952,115	115,397,454	115,397,282	73,903,598
k/l. Loading/ Transferring to (Y/N):													
Trucks? (via EU13, Loading Rack)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ships/ barges/ marine vessels?	N	N	N	N	N	N	N	N	N	N	N	N	N
Rain car?	N	N	N	N	N	N	N	N	N	N	N	N	N
Other?	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline	Y - Pipeline
II. Control Equipment													
Description *(IFR = Internal Floating Roof)*	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	N/A	N/A
Pollutant(s) Controlled	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	VOC	N/A	N/A
Efficiency % (capture/ control)	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	N/A	N/A
Installation Date	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	N/A
III. BACT													
BACT was established <15 Years Ago	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
BPT analysis is attached	N	N	N	N	N	N	N	N	N	N	N	N	N
IV. Current or Proposed Emission Limits													
PM/ PM10/ PM2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SO2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NOx	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VOC	135.4 tpy (Facility-wide)												
V. Monitoring													
Is this Unit subject to Compliance Assurance Monitoring (CAM) under 40 CFR Part 64? (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameters Monitored	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Monitor Frequency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Record Frequency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Form No.	A-L-0022
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Revision No.	04
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Section J: Certification

Each application submitted to the Department must include the following certification signed by a Responsible Official*:

> "I certify under penalty of law that, based on information and belief formed after reasonable inquiry, I believe the information included in the attached document is true, complete, and accurate."

Responsible Official Signature

6/3/20
Date

Stephen Wing
Responsible Official Name (Printed or Typed)

Operations Manager
Title

*A Responsible Official is defined by 06-096 C.M.R. ch. 100 as:

A. For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(1) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(2) The delegation of authority to such representatives is approved in advance by the permitting authority;

B. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

C. For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA).

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Section K: List of Attachments

☐ Facility Description	Attachment _____
☐ Discussion of Applicable Requirements	Attachment _____
☒ Public Notice of Intent to File *(Copy or tear sheet from the newspaper)*	Attachment A
☐ BPT/BACT Analysis	Attachment _____
☒ Calculations	Attachment B
☐ Permit Shield	Attachment _____
☐ CAM Plan	Attachment _____
☐ Ambient Air Quality Impact Analysis	Attachment _____
☐ Proposed Alternative Operating Scenarios	Attachment _____
☐ Plot Plan	Attachment _____
☐ Confidentiality Justification	Attachment _____
☐ Other:	Attachment _____
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☐ Other:	Attachment _____

Attachment A

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Portland Press Herald
June 2, 2020
Miscellaneous Notices

INTENT TO FILE Please take notice that Buckeye South Portland Terminal of 170 Lincoln Street, South Portland, Maine, intends to file an Air Emission License application with the Maine Department of Environmental Protection (DEP) pursuant to the provisions of 38 M.R.S.A., Section 590 on or before June 11, 2020. The application is for an air permit renewal for the existing South Portland Terminal at 170 Lincoln Street, South Portland. According to Department regulations, interested parties must be publicly notified, written comments invited, and if justified, an opportunity for public hearing given. A request for a public hearing or for the Board of Environmental Protection to assume jurisdiction must be received by the Department, in writing, no later than 20 days after the application is accepted by the Department as complete for processing. The application and supporting documentation will be made available for review by contacting the Bureau of Air Quality (BAQ) DEP offices in Augusta, (207) 287-7688, during normal working hours. A copy of the application and supporting documentation may also be available at the municipal office in City of South Portland, Maine. Written public comments may be sent to DEP Project Manager, Jane Gilbert at the Bureau of Air Quality, State House Station #17, Augusta, Maine 04333.

Show results beginning at page:

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Attachment B

BUCKEYE SOUTH PORTLAND TERMINAL, LLC
S PORTLAND TERMINAL

VOC AND HAZARDOUS AIR POLLUTANT (HAPs) PTE EMISSIONS

Distillate Tank No.	Tanks VOC Emissions (lbs/yr)	Tanks VOC Emissions (tons/yr)	Roof Landing VOC Emissions (tons/yr)	Tank Total VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	2,2,4-TMP (wt%) 0 (lbs/yr)	Benzene (wt%) 0.49 (lbs/yr)	Cumene (wt%) 0.01 (lbs/yr)	Ethylbenzene (wt%) 0.05 (lbs/yr)	Hexane (wt%) 0.16 (lbs/yr)	MTBE (wt%) 0 (lbs/yr)	Naphthalene (wt%) 0 (lbs/yr)	Styrene (wt%) 0 (lbs/yr)	Toluene (wt%) 0.29 (lbs/yr)	Xylenes (wt%) 0.16 (lbs/yr)	HAPs Emissions (lbs/yr)	HAPs Emissions (tons/yr)
16	345	0.17		345.20	0.17	0.00	1.69	0.03	0.17	0.55	0.00	0.00	0.00	1.00	0.55	4.00	0.00
17	657	0.33		656.80	0.33	0.00	3.22	0.07	0.33	1.05	0.00	0.00	0.00	1.90	1.05	7.62	0.00
18	510	0.26		510.00	0.26	0.00	2.50	0.05	0.26	0.82	0.00	0.00	0.00	1.48	0.82	5.92	0.00
19	584	0.29		583.60	0.29	0.00	2.86	0.06	0.29	0.93	0.00	0.00	0.00	1.69	0.93	6.77	0.00
26	729	0.36		728.60	0.36	0.00	3.57	0.07	0.36	1.17	0.00	0.00	0.00	2.11	1.17	8.45	0.00
27	517	0.26		516.80	0.26	0.00	2.53	0.05	0.26	0.83	0.00	0.00	0.00	1.50	0.83	5.99	0.00
32	3,355	1.68		3355.60	1.68	0.00	16.44	0.34	1.68	5.37	0.00	0.00	0.00	9.73	5.37	38.92	0.02
33	2,128	1.06		2127.60	1.06	0.00	10.43	0.21	1.06	3.40	0.00	0.00	0.00	6.17	3.40	24.68	0.01
Cleaning	0	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Ethanol, Transmix & Gasoline Tank No.	Tanks VOC Emissions (lbs/yr)	Tanks VOC Emissions (tons/yr)	Roof Landing VOC Emissions (tons/yr)	Tank Total VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	2,2,4-TMP (wt%) 0.7 (lbs/yr)	Benzene (wt%) 0.4 (lbs/yr)	Cumene (wt%) 0 (lbs/yr)	Ethylbenzene (wt%) 0.1 (lbs/yr)	Hexane (wt%) 1.4 (lbs/yr)	MTBE (wt%) 0 (lbs/yr)	Naphthalene (wt%) 0 (lbs/yr)	Styrene (wt%) 0 (lbs/yr)	Toluene (wt%) 1.1 (lbs/yr)	Xylenes (wt%) 0.4 (lbs/yr)	HAPs Emissions (lbs/yr)	HAPs Emissions (tons/yr)
28	6,757	3.38	2.30	11355.80	5.68	79.49	45.42	0.00	11.36	158.98	0.00	0.00	0.00	124.91	45.42	465.59	0.23
29	6,038	3.02	2.11	10254.00	5.13	71.78	41.02	0.00	10.25	143.56	0.00	0.00	0.00	112.79	41.02	420.41	0.21
30	10,808	5.40	4.33	19470.00	9.74	136.29	77.88	0.00	19.47	272.58	0.00	0.00	0.00	214.17	77.88	798.27	0.40
37	7,222	3.61	1.86	10947.00	5.47	76.63	43.79	0.00	10.95	153.26	0.00	0.00	0.00	120.42	43.79	448.83	0.22
38	11,935	5.97	2.44	16814.60	8.41	117.70	67.26	0.00	16.81	235.40	0.00	0.00	0.00	184.96	67.26	689.40	0.34
39	1,772	0.89	0.37	2508.00	1.25	17.56	10.03	0.00	2.51	35.11	0.00	0.00	0.00	27.59	10.03	102.83	0.05
40	3,658	1.83	0.37	4393.40	2.20	30.75	17.57	0.00	4.39	61.51	0.00	0.00	0.00	48.33	17.57	180.13	0.09
41	2,128	1.06	0.38	2893.60	1.45	20.26	11.57	0.00	2.89	40.51	0.00	0.00	0.00	31.83	11.57	118.64	0.06
42	1,757	0.88	0.39	2537.80	1.27	17.76	10.15	0.00	2.54	35.53	0.00	0.00	0.00	27.92	10.15	104.05	0.05
43	10,164	5.08	2.94	16943.40	8.02	112.30	64.17	0.00	16.04	224.61	0.00	0.00	0.00	176.48	64.17	657.78	0.33
44	8,128	4.06	3.81	15753.20	7.88	110.27	63.01	0.00	15.75	220.54	0.00	0.00	0.00	173.29	63.01	645.88	0.32
Cleaning	68,071	34.04		68070.60	34.04	476.49	272.28	0.00	68.07	952.99	0.00	0.00	0.00	748.78	272.28	2,790.89	1.40

Additive Tank No.	Tanks VOC Emissions (lbs/yr)	Tanks VOC Emissions (tons/yr)	Roof Landing VOC Emissions (tons/yr)	Tank Total VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	2,2,4-TMP (wt%) 0 (lbs/yr)	Benzene (wt%) 0 (lbs/yr)	Cumene (wt%) 0 (lbs/yr)	Ethylbenzene (wt%) 1.26 (lbs/yr)	Hexane (wt%) 0 (lbs/yr)	MTBE (wt%) 0 (lbs/yr)	Naphthalene (wt%) 0.00035 (lbs/yr)	Styrene (wt%) 0 (lbs/yr)	Toluene (wt%) 0 (lbs/yr)	Xylenes (wt%) 3.8 (lbs/yr)	HAPs Emissions (lbs/yr)	HAPs Emissions (tons/yr)
A1	4.0	0.00		4.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.15	0.20	0.00
A2	1.8	0.00		1.80	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.07	0.09	0.00
A3	3.6	0.00		3.60	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.14	0.18	0.00
A6	3.4	0.00		3.40	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.13	0.17	0.00
A7	3.8	0.00		3.80	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.14	0.19	0.00
A8	3.4	0.00		3.40	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.13	0.17	0.00
A9	0.2	0.00		0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00

Biodiesel Tank No.	Tanks VOC Emissions (lbs/yr)	Tanks VOC Emissions (tons/yr)	Roof Landing VOC Emissions (tons/yr)	Tank Total VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	2,2,4-TMP (wt%) 0 (lbs/yr)	Benzene (wt%) 0.49 (lbs/yr)	Cumene (wt%) 0.01 (lbs/yr)	Ethylbenzene (wt%) 0.05 (lbs/yr)	Hexane (wt%) 0.16 (lbs/yr)	MtBE (wt%) 0 (lbs/yr)	Naphthalene (wt%) 0 (lbs/yr)	Styrene (wt%) 0 (lbs/yr)	Toluene (wt%) 0.29 (lbs/yr)	Xylenes (wt%) 0.16 (lbs/yr)	HAPs Emissions (lbs/yr)	HAPs Emissions (tons/yr)
A4	1.6	0.00		1.60	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
A5	2.2	0.00		2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Transmix & Gasoline Loading	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	Roof Landing VOC Emissions (tons/yr)	Rack Total VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	2,2,4-TMP (wt%) 0.7 (lbs/yr)	Benzene (wt%) 0.4 (lbs/yr)	Cumene (wt%) 0 (lbs/yr)	Ethylbenzene (wt%) 0.1 (lbs/yr)	Hexane (wt%) 1.4 (lbs/yr)	MTBE (wt%) 0 (lbs/yr)	Naphthalene (wt%) 0 (lbs/yr)	Styrene (wt%) 0 (lbs/yr)	Toluene (wt%) 1.1 (lbs/yr)	Xylenes (wt%) 0.4 (lbs/yr)	HAPs Emissions (lbs/yr)	HAPs Emissions (tons/yr)
Gasoline	75,060	37.53		75060.00	37.53	525.42	300.24	0.00	75.06	1050.84	0.00	0.00	0.00	825.66	300.24	3,077.46	1.54

Distillate Loading	Emissions (lbs/yr)	Emissions (tons/yr)	Roof Landing Emissions (tons/yr)	Rack Total Emissions (lbs/yr)	Emissions (tons/yr)	2,2,4-TMP 0 (lbs/yr)	Benzene 0.49 (lbs/yr)	Cumene 0.01 (lbs/yr)	Ethylbenzene 0.05 (lbs/yr)	Hexane 0.16 (lbs/yr)	MTBE 0 (lbs/yr)	Naphthalene 0 (lbs/yr)	Styrene 0 (lbs/yr)	Toluene 0.29 (lbs/yr)	Xylenes 0.16 (lbs/yr)	Emissions (lbs/yr)	Emissions (tons/yr)
Distillate	3,688	1.84		3687.77	1.84	0.00	18.07	0.37	1.84	5.90	0.00	0.00	0.00	10.69	5.90	42.78	0.02

Wastewater Tank No.	Emissions (lbs/yr)	Emissions (tons/yr)	Emissions (tons/yr)	Total Emissions (lbs/yr)	Emissions (tons/yr)	2,2,4-TMP 0.7 (lbs/yr)	Benzene 0.4 (lbs/yr)	Cumene 0 (lbs/yr)	Ethylbenzene 0.1 (lbs/yr)	Hexane 1.4 (lbs/yr)	MTBE 0 (lbs/yr)	Naphthalene 0 (lbs/yr)	Styrene 0 (lbs/yr)	Toluene 1.1 (lbs/yr)	Xylenes 0.4 (lbs/yr)	Emissions (lbs/yr)	Emissions (tons/yr)
31	347	0.17		0.17	0.17	2.43	1.39	0.00	0.35	4.86	0.00	0.00	0.00	3.81	1.39	14.22	0.01

Fugitives	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	Roof Landing VOC Emissions (tons/yr)	Total VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	2,2,4-TMP (wt%) 0.7 (lbs/yr)	Benzene (wt%) 0.4 (lbs/yr)	Cumene (wt%) 0 (lbs/yr)	Ethylbenzene (wt%) 0.1 (lbs/yr)	Hexane (wt%) 1.4 (lbs/yr)	MTBE (wt%) 0 (lbs/yr)	Naphthalene (wt%) 0 (lbs/yr)	Styrene (wt%) 0 (lbs/yr)	Toluene (wt%) 1.1 (lbs/yr)	Xylenes (wt%) 0.4 (lbs/yr)	HAPs Emissions (lbs/yr)	HAPs Emissions (tons/yr)
Equipment Fugitives	903	0.45		902.67	0.45	6.32	3.61	0.00	0.90	12.64	0.00	0.00	0.00	9.93	3.61	37.01	0.02

	Sources	Roof Landing		VOCs	2,2,4-TMP	Benzene	Cumene	Ethylbenzene	Hexane	MTBE	Naphthalene	Styrene	Toluene	Xylenes	HAPs Emissions
TOTAL (lbs/yr)	227,282	42,604		269,887	1792 03	1089 33	1 25	264 52	3618 08	0 00	0 00	0 00	2853 33	1048 81	10,688
TOTAL (tons/yr)	113 61	21 3		134.94	0 90	0 54	0 00	0 13	1 81	0 00	0 00	0 00	1 43	0 52	5.34

	Other Emissions
GHG	5,427.48
NOx	7.58
CO	18.69

Notes
1 Roof Landing VOC Emissions calculated from AP-42, Section 7 1 1 2 2 Roof Landings (2006)
2 VOC Emissions calculated from EPA's AP-42 method (Chapter 5 2 Transportation and marketing of Petroleum Liquids
3 Concentration of Gasoline/Ethanol HAPs determined from EPA's document "Gasoline Distribution Industry (Stage I) - Background Information for Proposed Standard", Table 3-2 (1994)
4 Concentration of Distillate HAPs determined from API Publication 1673, Table 3-1 (1998))

BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Emission Summary
ONLY USING PTE DATA [2020 PTE]
Reporting Period (January 2019 to December 2019)

Distillate Tank Number	VOC Emissions tons	Tank Cleaning VOC Emissions tons	Roof Landings VOC Emissions tons	Total VOC Emissions tons	2,2,4-TMP tons	Benzene tons	Cresol tons	Cumene tons	Ethyl-benzene tons	Hexane tons	MTBE tons	Naphthalene tons	Phenol tons	Styrene tons	Toluene tons	Xylenes tons	HAP Emissions tons
16	0.1726	0.0000	0.0000	0.1726	0.0000	0.0002	0.0000	0.0000	0.0001	0.0005	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0012
17	0.3284	0.0000	0.0000	0.3284	0.0000	0.0004	0.0000	0.0000	0.0001	0.0009	0.0000	0.0000	0.0000	0.0000	0.0005	0.0004	0.0023
18	0.2550	0.0000	0.0000	0.2550	0.0000	0.0003	0.0000	0.0000	0.0001	0.0007	0.0000	0.0000	0.0000	0.0000	0.0004	0.0003	0.0018
19	0.2918	0.0000	0.0000	0.2918	0.0000	0.0004	0.0000	0.0000	0.0001	0.0008	0.0000	0.0000	0.0000	0.0000	0.0004	0.0004	0.0021
26	0.3643	0.0000	0.0000	0.3643	0.0000	0.0004	0.0000	0.0000	0.0001	0.0010	0.0000	0.0000	0.0000	0.0000	0.0005	0.0005	0.0026
27	0.2584	0.0000	0.0000	0.2584	0.0000	0.0003	0.0000	0.0000	0.0001	0.0007	0.0000	0.0000	0.0000	0.0000	0.0004	0.0003	0.0018
32	1.6778	0.0000	0.0000	1.6778	0.0000	0.0020	0.0000	0.0002	0.0005	0.0045	0.0000	0.0000	0.0000	0.0000	0.0025	0.0022	0.0119
33	1.0638	0.0000	0.0000	1.0638	0.0000	0.0013	0.0000	0.0001	0.0003	0.0029	0.0000	0.0000	0.0000	0.0000	0.0016	0.0014	0.0076
A4	0.0008	0.0000	0.0000	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
A5	0.0011	0.0000	0.0000	0.0011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Gasoline Ethanol Transmix Tank Number	VOC Emissions tons	Tank Cleaning VOC Emissions tons	Roof Landings VOC Emissions tons	Total VOC Emissions tons	2,2,4-TMP tons	Benzene tons	Cresol tons	Cumene tons	Ethyl-benzene tons	Hexane tons	MTBE tons	Naphthalene tons	Phenol tons	Styrene tons	Toluene tons	Xylenes tons	HAP Emissions tons
28	3.3765	3.8734	2.2994	9.5513	0.0669	0.0382	0.0000	0.0000	0.0096	0.1337	0.0000	0.0000	0.0000	0.0000	0.1051	0.0382	0.3916
29	3.0188	3.2929	2.1082	8.4200	0.0589	0.0337	0.0000	0.0000	0.0084	0.1179	0.0000	0.0000	0.0000	0.0000	0.0926	0.0337	0.3452
30	5.4042	4.3013	4.3308	14.0363	0.0983	0.0561	0.0000	0.0000	0.0140	0.1965	0.0000	0.0000	0.0000	0.0000	0.1544	0.0561	0.5755
31	0.1734	0.0000	0.0000	0.1734	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
37	3.6111	3.7029	1.8624	9.1764	0.0642	0.0367	0.0000	0.0000	0.0092	0.1285	0.0000	0.0000	0.0000	0.0000	0.1009	0.0367	0.3762
38	5.9873	3.9290	2.4400	12.3564	0.0864	0.0493	0.0000	0.0000	0.0123	0.1727	0.0000	0.0000	0.0000	0.0000	0.1357	0.0493	0.5058
39	0.8861	1.1455	0.3879	2.3994	0.0168	0.0096	0.0000	0.0000	0.0024	0.0336	0.0000	0.0000	0.0000	0.0000	0.0264	0.0096	0.0984
40	1.8288	0.7953	0.3879	2.9919	0.0209	0.0120	0.0000	0.0000	0.0030	0.0419	0.0000	0.0000	0.0000	0.0000	0.0329	0.0120	0.1227
41	1.0639	0.0000	0.3829	1.4468	0.0101	0.0058	0.0000	0.0000	0.0014	0.0203	0.0000	0.0000	0.0000	0.0000	0.0159	0.0059	0.0593
42	0.8765	0.0000	0.3904	1.2669	0.0089	0.0051	0.0000	0.0000	0.0013	0.0178	0.0000	0.0000	0.0000	0.0000	0.0140	0.0051	0.0520
43	5.0819	4.1289	2.9398	12.1506	0.0851	0.0486	0.0000	0.0000	0.0122	0.1701	0.0000	0.0000	0.0000	0.0000	0.1337	0.0486	0.4982
44	4.0641	8.6661	3.8125	16.7427	0.1172	0.0670	0.0000	0.0000	0.0167	0.2344	0.0000	0.0000	0.0000	0.0000	0.1842	0.0670	0.6865

Additives and Other Tanks Number	VOC Emissions tons	Tank Cleaning VOC Emissions tons	Roof Landings VOC Emissions tons	Total VOC Emissions tons	2,2,4-TMP tons	Benzene tons	Cresol tons	Cumene tons	Ethyl-benzene tons	Hexane tons	MTBE tons	Naphthalene tons	Phenol tons	Styrene tons	Toluene tons	Xylenes tons	HAP Emissions tons
A1	0.0020	0.0000	0.0000	0.0020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
A2	0.0009	0.0000	0.0000	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
A3	0.0018	0.0000	0.0000	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
A6	0.0017	0.0000	0.0000	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
A7	0.0019	0.0000	0.0000	0.0019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
A8	0.0017	0.0000	0.0000	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
A9	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Distillate/Crude Loading	VOC Emissions tons	Fugitive Emissions tons		Total VOC Emissions tons	2,2,4-TMP tons	Benzene tons	Cresol tons	Cumene tons	Ethyl-benzene tons	Hexane tons	MTBE tons	Naphthalene tons	Phenol tons	Styrene tons	Toluene tons	Xylenes tons	HAP Emissions tons
Truck Rack	1.3752	0.0000		1.3752	0.0000	0.0037	0.0000	0.0001	0.0007	0.0022	0.0000	0.0000	0.0000	0.0000	0.0040	0.0022	0.0160
Truck Rack - Lane 10	0.4584	0.0000		0.4584	0.0000	0.0022	0.0000	0.0000	0.0002	0.0007	0.0000	0.0000	0.0000	0.0000	0.0013	0.0007	0.0053

Gasoline Ethanol Transmix Loading	VOC Emissions tons	Fugitive Emissions tons		Total VOC Emissions tons	2,2,4-TMP tons	Benzene tons	Cresol tons	Cumene tons	Ethyl-benzene tons	Hexane tons	MTBE tons	Naphthalene tons	Phenol tons	Styrene tons	Toluene tons	Xylenes tons	HAP Emissions tons
Truck Rack	20.6500	16.6800		37.5300	0.2627	0.1501	0.0000	0.0000	0.0375	0.5254	0.0000	0.0000	0.0000	0.0000	0.4128	0.1501	1.5387

Other Activity				Total VOC Emissions tons	2,2,4-TMP tons	Benzene tons	Cresol tons	Cumene tons	Ethyl-benzene tons	Hexane tons	MTBE tons	Naphthalene tons	Phenol tons	Styrene tons	Toluene tons	Xylenes tons	HAP Emissions tons
Fugitives				0.4165	0.0013	0.0019	0.0000	0.0000	0.0003	0.0030	0.0000	0.0000	0.0000	0.0000	0.0028	0.0011	0.0105

	Source VOC Emissions	Tank Cleaning VOC Emissions	Roof Landings VOC Emissions	Total VOC Emissions	2,2,4-TMP	Benzene	Cresol	Cumene	Ethyl-benzene	Hexane	MTBE	Naphthalene	Phenol	Styrene	Toluene	Xylenes	HAP Emissions
TOTAL tons	**79.5608**	**34.0354**	**21.3023**	**134.8985**	**0.6977**	**0.5284**	**0.0000**	**0.0005**	**0.1307**	**1.8106**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.4233**	**0.5224**	**5.3137**

BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Throughput Emissions
ONLY USING PTE DATA [2020 PTE]
Reporting Period (January 2019 to December 2019)

Tank Operations Overview

Biodiesel - Biodiesel

Tank Name	Status[1]	Throughput Amount (gals)	VOC Emissions tons	2,2,4-TMP (wt%) 0 tons	Benzene (wt%) 0 tons	Cresol (wt%) 0 tons	Cumene (wt%) 0 tons	Ethyl-benzene (wt%) 0 tons	Hexane (wt%) 0 tons	MTBE (wt%) 0 tons	Naphthalene (wt%) 0 tons	Phenol (wt%) 0 tons	Styrene (wt%) 0 tons	Toluene (wt%) 0 tons	Xylenes (wt%) 0 tons	HAP Emissions tons
A4	Active	1,048,776	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Standing Losses		*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.0008*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
A5	Active	1,282,488	0.0011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Standing Losses		*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.0010*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*

Gasoline - Default HAP Profile

Tank Name	Status[1]	Throughput Amount (gals)	VOC Emissions tons	2,2,4-TMP (wt%) 0.7 tons	Benzene (wt%) 0.4 tons	Cresol (wt%) 0 tons	Cumene (wt%) 0 tons	Ethyl-benzene (wt%) 0.1 tons	Hexane (wt%) 1.4 tons	MTBE (wt%) 0 tons	Naphthalene (wt%) 0 tons	Phenol (wt%) 0 tons	Styrene (wt%) 0 tons	Toluene (wt%) 1.1 tons	Xylenes (wt%) 0.4 tons	HAP Emissions tons
28	Active	51,659,004	3.3785	0.0236	0.0135	0.0000	0.0000	0.0034	0.0473	0.0000	0.0000	0.0000	0.0000	0.0372	0.0135	0.1385
	Standing Losses		*3.3254*	*0.0233*	*0.0133*	*0.0000*	*0.0000*	*0.0033*	*0.0466*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0365*	*0.0133*	*0.1363*
	Working Losses		*0.0531*	*0.0004*	*0.0002*	*0.0000*	*0.0000*	*0.0001*	*0.0007*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0006*	*0.0002*	*0.0022*
29	Active	52,173,024	3.0188	0.0211	0.0121	0.0000	0.0000	0.0030	0.0423	0.0000	0.0000	0.0000	0.0000	0.0332	0.0121	0.1238
	Standing Losses		*2.9652*	*0.0208*	*0.0119*	*0.0000*	*0.0000*	*0.0030*	*0.0415*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0326*	*0.0119*	*0.1216*
	Working Losses		*0.0535*	*0.0004*	*0.0002*	*0.0000*	*0.0000*	*0.0001*	*0.0008*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0006*	*0.0002*	*0.0022*
30	Active	90,355,056	5.4042	0.0378	0.0216	0.0000	0.0000	0.0054	0.0757	0.0000	0.0000	0.0000	0.0000	0.0594	0.0216	0.2218
	Standing Losses		*5.3284*	*0.0373*	*0.0213*	*0.0000*	*0.0000*	*0.0053*	*0.0746*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0586*	*0.0213*	*0.2185*
	Working Losses		*0.0758*	*0.0005*	*0.0003*	*0.0000*	*0.0000*	*0.0001*	*0.0011*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0008*	*0.0003*	*0.0031*
37	Active	61,039,860	3.6111	0.0253	0.0144	0.0000	0.0000	0.0036	0.0506	0.0000	0.0000	0.0000	0.0000	0.0397	0.0144	0.1481
	Standing Losses		*3.5461*	*0.0248*	*0.0142*	*0.0000*	*0.0000*	*0.0035*	*0.0496*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0390*	*0.0142*	*0.1454*
	Working Losses		*0.0650*	*0.0005*	*0.0003*	*0.0000*	*0.0000*	*0.0001*	*0.0009*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0007*	*0.0003*	*0.0027*
38	Active	60,397,332	5.9973	0.0418	0.0239	0.0000	0.0000	0.0060	0.0835	0.0000	0.0000	0.0000	0.0000	0.0656	0.0239	0.2447
	Standing Losses		*5.9329*	*0.0413*	*0.0236*	*0.0000*	*0.0000*	*0.0059*	*0.0826*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0649*	*0.0236*	*0.2420*
	Working Losses		*0.0644*	*0.0005*	*0.0003*	*0.0000*	*0.0000*	*0.0001*	*0.0009*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0007*	*0.0003*	*0.0026*
39	Active	7,401,888	0.8661	0.0062	0.0035	0.0000	0.0000	0.0009	0.0124	0.0000	0.0000	0.0000	0.0000	0.0097	0.0035	0.0363
	Standing Losses		*0.8682*	*0.0061*	*0.0035*	*0.0000*	*0.0000*	*0.0009*	*0.0122*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0096*	*0.0035*	*0.0356*
	Working Losses		*0.0179*	*0.0001*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0003*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0002*	*0.0001*	*0.0007*
40	Active	7,401,888	1.8288	0.0128	0.0073	0.0000	0.0000	0.0018	0.0256	0.0000	0.0000	0.0000	0.0000	0.0201	0.0073	0.0750
	Standing Losses		*1.8109*	*0.0127*	*0.0072*	*0.0000*	*0.0000*	*0.0018*	*0.0254*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0199*	*0.0072*	*0.0742*
	Working Losses		*0.0179*	*0.0001*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0003*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0002*	*0.0001*	*0.0007*
41	Active	7,401,888	1.0639	0.0074	0.0043	0.0000	0.0000	0.0011	0.0149	0.0000	0.0000	0.0000	0.0000	0.0117	0.0043	0.0438
	Standing Losses		*1.0460*	*0.0073*	*0.0042*	*0.0000*	*0.0000*	*0.0010*	*0.0146*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0115*	*0.0042*	*0.0429*
	Working Losses		*0.0179*	*0.0001*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0003*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0002*	*0.0001*	*0.0007*
42	Active	7,401,888	0.8765	0.0061	0.0035	0.0000	0.0000	0.0009	0.0123	0.0000	0.0000	0.0000	0.0000	0.0097	0.0035	0.0360
	Standing Losses		*0.8586*	*0.0060*	*0.0034*	*0.0000*	*0.0000*	*0.0009*	*0.0120*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0095*	*0.0034*	*0.0353*
	Working Losses		*0.0179*	*0.0001*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0003*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0002*	*0.0001*	*0.0007*
43	Active	60,397,332	5.0319	0.0356	0.0203	0.0000	0.0000	0.0051	0.0711	0.0000	0.0000	0.0000	0.0000	0.0559	0.0203	0.2084
	Standing Losses		*5.0175*	*0.0351*	*0.0201*	*0.0000*	*0.0000*	*0.0050*	*0.0702*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0552*	*0.0201*	*0.2057*
	Working Losses		*0.0144*	*0.0005*	*0.0003*	*0.0000*	*0.0000*	*0.0001*	*0.0009*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0007*	*0.0003*	*0.0026*
44	Active	94,370,844	4.0641	0.0284	0.0163	0.0000	0.0000	0.0041	0.0569	0.0000	0.0000	0.0000	0.0000	0.0447	0.0163	0.1666
	Standing Losses		*3.9938*	*0.0279*	*0.0159*	*0.0000*	*0.0000*	*0.0040*	*0.0558*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0439*	*0.0159*	*0.1633*
	Working Losses		*0.0803*	*0.0006*	*0.0003*	*0.0000*	*0.0000*	*0.0001*	*0.0011*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0009*	*0.0003*	*0.0033*

Gasoline Additive - Default HAP Profile

Tank Name	Status[1]	Throughput Amount (gals)	VOC Emissions tons	2,2,4-TMP (wt%) 0 tons	Benzene (wt%) 0 tons	Cresol (wt%) 0 tons	Cumene (wt%) 0 tons	Ethyl-benzene (wt%) 1.26 tons	Hexane (wt%) 0 tons	MTBE (wt%) 0 tons	Naphthalene (wt%) 0.00035 tons	Phenol (wt%) 0 tons	Styrene (wt%) 0 tons	Toluene (wt%) 0 tons	Xylenes (wt%) 3.8 tons	HAP Emissions tons
A1	Active	98,652	0.0020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
	Standing Losses		*0.0005*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.0015*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*
A2	Active	45,099	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Standing Losses		*0.0002*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.0007*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
A3	Active	121,068	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
	Standing Losses		*0.0002*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.0017*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*
A6	Active	94,704	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
	Standing Losses		*0.0002*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.0014*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*

A7	Active	111,100	0.0019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
	Standing Losses		*0.0002*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.0017*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*
A8	Active	98,088	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
	Standing Losses		*0.0002*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.0015*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*
A9	Active	6,900	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Standing Losses		*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*

Jet Kerosene - Default HAP Profile

Tank Name	Status[1]	Throughput Amount (gals)	VOC Emissions tons	2,2,4-TMP (wt%) 0 tons	Benzene (wt%) 0.12 tons	Cresol (wt%) 0 tons	Cumene (wt%) 0.01 tons	Ethyl-benzene (wt%) 0.03 tons	Hexane (wt%) 0.27 tons	MTBE (wt%) 0 tons	Naphthalene (wt%) 0 tons	Phenol (wt%) 0 tons	Styrene (wt%) 0 tons	Toluene (wt%) 0.15 tons	Xylenes (wt%) 0.13 tons	HAP Emissions tons
16	Active	16,594,584	0.1726	0.0000	0.0002	0.0000	0.0000	0.0001	0.0005	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0012
	Standing Losses		*0.0319*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0002*
	Working Losses		*0.1407*	*0.0000*	*0.0002*	*0.0000*	*0.0000*	*0.0000*	*0.0004*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0002*	*0.0002*	*0.0010*
17	Active	32,525,376	0.3284	0.0000	0.0004	0.0000	0.0000	0.0001	0.0009	0.0000	0.0000	0.0000	0.0000	0.0005	0.0004	0.0023
	Standing Losses		*0.0527*	*0.0000*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*	*0.0004*
	Working Losses		*0.2757*	*0.0000*	*0.0003*	*0.0000*	*0.0000*	*0.0001*	*0.0007*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0004*	*0.0004*	*0.0020*
18	Active	18,585,936	0.2550	0.0000	0.0003	0.0000	0.0000	0.0001	0.0007	0.0000	0.0000	0.0000	0.0000	0.0004	0.0003	0.0018
	Standing Losses		*0.0675*	*0.0000*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0002*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*	*0.0005*
	Working Losses		*0.1875*	*0.0000*	*0.0002*	*0.0000*	*0.0000*	*0.0001*	*0.0005*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0003*	*0.0002*	*0.0013*
19	Active	28,914,396	0.2918	0.0000	0.0004	0.0000	0.0000	0.0001	0.0008	0.0000	0.0000	0.0000	0.0000	0.0004	0.0004	0.0021
	Standing Losses		*0.0467*	*0.0000*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*	*0.0003*
	Working Losses		*0.2451*	*0.0000*	*0.0003*	*0.0000*	*0.0000*	*0.0001*	*0.0007*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0004*	*0.0003*	*0.0017*
26	Active	28,044,840	0.3643	0.0000	0.0004	0.0000	0.0000	0.0001	0.0010	0.0000	0.0000	0.0000	0.0000	0.0005	0.0005	0.0026
	Standing Losses		*0.0908*	*0.0000*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0002*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*	*0.0006*
	Working Losses		*0.2735*	*0.0000*	*0.0003*	*0.0000*	*0.0000*	*0.0001*	*0.0007*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0004*	*0.0004*	*0.0019*
27	Active	18,965,232	0.2584	0.0000	0.0003	0.0000	0.0000	0.0001	0.0007	0.0000	0.0000	0.0000	0.0000	0.0004	0.0003	0.0018
	Standing Losses		*0.0702*	*0.0000*	*0.0001*	*0.0000*	*0.0000*	*0.0000*	*0.0002*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0001*	*0.0001*	*0.0005*
	Working Losses		*0.1881*	*0.0000*	*0.0002*	*0.0000*	*0.0000*	*0.0001*	*0.0005*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0003*	*0.0002*	*0.0013*
32	Active	132,163,992	1.6778	0.0000	0.0020	0.0000	0.0002	0.0005	0.0045	0.0000	0.0000	0.0000	0.0000	0.0025	0.0022	0.0119
	Standing Losses		*0.3400*	*0.0000*	*0.0004*	*0.0000*	*0.0000*	*0.0001*	*0.0009*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0005*	*0.0004*	*0.0024*
	Working Losses		*1.3378*	*0.0000*	*0.0016*	*0.0000*	*0.0001*	*0.0004*	*0.0036*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0020*	*0.0017*	*0.0095*
33	OOS - Insp/Maint	84,205,644	1.0638	0.0000	0.0013	0.0000	0.0001	0.0003	0.0029	0.0000	0.0000	0.0000	0.0000	0.0016	0.0014	0.0076
	Standing Losses		*0.2115*	*0.0000*	*0.0003*	*0.0000*	*0.0000*	*0.0001*	*0.0006*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0003*	*0.0003*	*0.0015*
	Working Losses		*0.8524*	*0.0000*	*0.0010*	*0.0000*	*0.0001*	*0.0003*	*0.0023*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0013*	*0.0011*	*0.0061*

PCW - 99/1 - Default HAP Profile

Tank Name	Status[1]	Throughput Amount (gals)	VOC Emissions tons	2,2,4-TMP (wt%) 0.0098 tons	Benzene (wt%) 0.0005 tons	Cresol (wt%) 0 tons	Cumene (wt%) 0.00003 tons	Ethyl-benzene (wt%) 0.00002 tons	Hexane (wt%) 0.0024 tons	MTBE (wt%) 0 tons	Naphthalene (wt%) 0.0000001 tons	Phenol (wt%) 0.0000000002 tons	Styrene (wt%) 0.000002 tons	Toluene (wt%) 0.00059 tons	Xylenes (wt%) 0.00017 tons	HAP Emissions tons
31	Active	2,570,400	0.1734	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Standing Losses		*0.0662*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
	Working Losses		*0.1072*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*
Totals:		**665,477,216.0000**	**39.7809**	**0.2453**	**0.1460**	**0.0000**	**0.0004**	**0.0366**	**0.5045**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.3938**	**0.1469**	**1.4744**

Tank Operations Breakdown[2]

16 - 2012-VFRT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawal Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	1,382,882	514,038	Jet Kerosene	0.0014	0.0082	0.0000	0.0000	0.0000	0.0000	0.0096
Nov 2019	1,382,882	514,038	Jet Kerosene	0.0016	0.0099	0.0000	0.0000	0.0000	0.0000	0.0115
Oct 2019	1,382,882	514,038	Jet Kerosene	0.0025	0.0117	0.0000	0.0000	0.0000	0.0000	0.0143
Sep 2019	1,382,882	514,038	Jet Kerosene	0.0032	0.0140	0.0000	0.0000	0.0000	0.0000	0.0172
Aug 2019	1,382,882	514,038	Jet Kerosene	0.0040	0.0161	0.0000	0.0000	0.0000	0.0000	0.0201
Jul 2019	1,382,882	514,038	Jet Kerosene	0.0044	0.0166	0.0000	0.0000	0.0000	0.0000	0.0209
Jun 2019	1,382,882	514,038	Jet Kerosene	0.0039	0.0151	0.0000	0.0000	0.0000	0.0000	0.0191
May 2019	1,382,882	514,038	Jet Kerosene	0.0034	0.0131	0.0000	0.0000	0.0000	0.0000	0.0165
Apr 2019	1,382,882	514,038	Jet Kerosene	0.0025	0.0111	0.0000	0.0000	0.0000	0.0000	0.0136
Mar 2019	1,382,882	514,038	Jet Kerosene	0.0020	0.0094	0.0000	0.0000	0.0000	0.0000	0.0113
Feb 2019	1,382,882	514,038	Jet Kerosene	0.0016	0.0079	0.0000	0.0000	0.0000	0.0000	0.0095
Jan 2019	1,382,882	514,038	Jet Kerosene	0.0015	0.0075	0.0000	0.0000	0.0000	0.0000	0.0090

17 - PROXY-VFRT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawal Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	2,710,448	931,266	Jet Kerosene	0.0023	0.0160	0.0000	0.0000	0.0000	0.0000	0.0183
Nov 2019	2,710,448	931,266	Jet Kerosene	0.0027	0.0195	0.0000	0.0000	0.0000	0.0000	0.0221

Oct 2019	2,710,448	931,266	Jet Kerosene	0.0042	0.0230	0.0000	0.0000	0.0000	0.0000	0.0272
Sep 2019	2,710,448	931,266	Jet Kerosene	0.0053	0.0275	0.0000	0.0000	0.0000	0.0000	0.0328
Aug 2019	2,710,448	931,266	Jet Kerosene	0.0067	0.0316	0.0000	0.0000	0.0000	0.0000	0.0383
Jul 2019	2,710,448	931,266	Jet Kerosene	0.0072	0.0325	0.0000	0.0000	0.0000	0.0000	0.0397
Jun 2019	2,710,448	931,266	Jet Kerosene	0.0065	0.0297	0.0000	0.0000	0.0000	0.0000	0.0362
May 2019	2,710,448	931,266	Jet Kerosene	0.0055	0.0257	0.0000	0.0000	0.0000	0.0000	0.0313
Apr 2019	2,710,448	931,266	Jet Kerosene	0.0041	0.0218	0.0000	0.0000	0.0000	0.0000	0.0259
Mar 2019	2,710,448	931,266	Jet Kerosene	0.0032	0.0183	0.0000	0.0000	0.0000	0.0000	0.0215
Feb 2019	2,710,448	931,266	Jet Kerosene	0.0025	0.0155	0.0000	0.0000	0.0000	0.0000	0.0180
Jan 2019	2,710,448	931,266	Jet Kerosene	0.0024	0.0147	0.0000	0.0000	0.0000	0.0000	0.0171

18 - VFR

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	1,548,828	575,400	Jet Kerosene	0.0021	0.0100	0.0000	0.0000	0.0000	0.0000	0.0122
Nov 2019	1,548,828	575,400	Jet Kerosene	0.0026	0.0123	0.0000	0.0000	0.0000	0.0000	0.0149
Oct 2019	1,548,828	575,400	Jet Kerosene	0.0046	0.0150	0.0000	0.0000	0.0000	0.0000	0.0196
Sep 2019	1,548,828	575,400	Jet Kerosene	0.0066	0.0186	0.0000	0.0000	0.0000	0.0000	0.0253
Aug 2019	1,548,828	575,400	Jet Kerosene	0.0092	0.0221	0.0000	0.0000	0.0000	0.0000	0.0313
Jul 2019	1,548,828	575,400	Jet Kerosene	0.0104	0.0231	0.0000	0.0000	0.0000	0.0000	0.0336
Jun 2019	1,548,828	575,400	Jet Kerosene	0.0094	0.0213	0.0000	0.0000	0.0000	0.0000	0.0307
May 2019	1,548,828	575,400	Jet Kerosene	0.0078	0.0182	0.0000	0.0000	0.0000	0.0000	0.0260
Apr 2019	1,548,828	575,400	Jet Kerosene	0.0055	0.0151	0.0000	0.0000	0.0000	0.0000	0.0206
Mar 2019	1,548,828	575,400	Jet Kerosene	0.0041	0.0124	0.0000	0.0000	0.0000	0.0000	0.0165
Feb 2019	1,548,828	575,400	Jet Kerosene	0.0027	0.0101	0.0000	0.0000	0.0000	0.0000	0.0129
Jan 2019	1,548,828	575,400	Jet Kerosene	0.0023	0.0093	0.0000	0.0000	0.0000	0.0000	0.0116

19 - PROXY-VFRT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	2,409,533	999,600	Jet Kerosene	0.0020	0.0142	0.0000	0.0000	0.0000	0.0000	0.0162
Nov 2019	2,409,533	999,600	Jet Kerosene	0.0024	0.0173	0.0000	0.0000	0.0000	0.0000	0.0197
Oct 2019	2,409,533	999,600	Jet Kerosene	0.0037	0.0205	0.0000	0.0000	0.0000	0.0000	0.0242
Sep 2019	2,409,533	999,600	Jet Kerosene	0.0047	0.0245	0.0000	0.0000	0.0000	0.0000	0.0292
Aug 2019	2,409,533	999,600	Jet Kerosene	0.0060	0.0281	0.0000	0.0000	0.0000	0.0000	0.0340
Jul 2019	2,409,533	999,600	Jet Kerosene	0.0064	0.0289	0.0000	0.0000	0.0000	0.0000	0.0353
Jun 2019	2,409,533	999,600	Jet Kerosene	0.0058	0.0264	0.0000	0.0000	0.0000	0.0000	0.0322
May 2019	2,409,533	999,600	Jet Kerosene	0.0049	0.0229	0.0000	0.0000	0.0000	0.0000	0.0278
Apr 2019	2,409,533	999,600	Jet Kerosene	0.0036	0.0194	0.0000	0.0000	0.0000	0.0000	0.0230
Mar 2019	2,409,533	999,600	Jet Kerosene	0.0028	0.0163	0.0000	0.0000	0.0000	0.0000	0.0191
Feb 2019	2,409,533	999,600	Jet Kerosene	0.0022	0.0138	0.0000	0.0000	0.0000	0.0000	0.0160
Jan 2019	2,409,533	999,600	Jet Kerosene	0.0021	0.0131	0.0000	0.0000	0.0000	0.0000	0.0152

26 - VFR

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	2,337,070	982,800	Jet Kerosene	0.0029	0.0146	0.0000	0.0000	0.0000	0.0000	0.0175
Nov 2019	2,337,070	982,800	Jet Kerosene	0.0035	0.0179	0.0000	0.0000	0.0000	0.0000	0.0214
Oct 2019	2,337,070	982,800	Jet Kerosene	0.0062	0.0219	0.0000	0.0000	0.0000	0.0000	0.0280
Sep 2019	2,337,070	982,800	Jet Kerosene	0.0089	0.0272	0.0000	0.0000	0.0000	0.0000	0.0361
Aug 2019	2,337,070	982,800	Jet Kerosene	0.0124	0.0322	0.0000	0.0000	0.0000	0.0000	0.0446
Jul 2019	2,337,070	982,800	Jet Kerosene	0.0140	0.0338	0.0000	0.0000	0.0000	0.0000	0.0478
Jun 2019	2,337,070	982,800	Jet Kerosene	0.0127	0.0310	0.0000	0.0000	0.0000	0.0000	0.0437
May 2019	2,337,070	982,800	Jet Kerosene	0.0105	0.0265	0.0000	0.0000	0.0000	0.0000	0.0371
Apr 2019	2,337,070	982,800	Jet Kerosene	0.0074	0.0220	0.0000	0.0000	0.0000	0.0000	0.0294
Mar 2019	2,337,070	982,800	Jet Kerosene	0.0055	0.0181	0.0000	0.0000	0.0000	0.0000	0.0235
Feb 2019	2,337,070	982,800	Jet Kerosene	0.0037	0.0148	0.0000	0.0000	0.0000	0.0000	0.0185
Jan 2019	2,337,070	982,800	Jet Kerosene	0.0031	0.0136	0.0000	0.0000	0.0000	0.0000	0.0167

27 - 2nd bottom install

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	1,550,436	532,266	Jet Kerosene	0.0022	0.0100	0.0000	0.0000	0.0000	0.0000	0.0123
Nov 2019	1,550,436	532,266	Jet Kerosene	0.0027	0.0123	0.0000	0.0000	0.0000	0.0000	0.0151
Oct 2019	1,550,436	532,266	Jet Kerosene	0.0048	0.0151	0.0000	0.0000	0.0000	0.0000	0.0198
Sep 2019	1,550,436	532,266	Jet Kerosene	0.0069	0.0187	0.0000	0.0000	0.0000	0.0000	0.0256
Aug 2019	1,550,436	532,266	Jet Kerosene	0.0096	0.0221	0.0000	0.0000	0.0000	0.0000	0.0317
Jul 2019	1,550,436	532,266	Jet Kerosene	0.0109	0.0232	0.0000	0.0000	0.0000	0.0000	0.0341
Jun 2019	1,550,436	532,266	Jet Kerosene	0.0098	0.0213	0.0000	0.0000	0.0000	0.0000	0.0311
May 2019	1,550,436	532,266	Jet Kerosene	0.0081	0.0183	0.0000	0.0000	0.0000	0.0000	0.0264
Apr 2019	1,550,436	532,266	Jet Kerosene	0.0057	0.0151	0.0000	0.0000	0.0000	0.0000	0.0208
Mar 2019	1,550,436	532,266	Jet Kerosene	0.0042	0.0124	0.0000	0.0000	0.0000	0.0000	0.0167
Feb 2019	1,550,436	532,266	Jet Kerosene	0.0029	0.0102	0.0000	0.0000	0.0000	0.0000	0.0130
Jan 2019	1,550,436	532,266	Jet Kerosene	0.0024	0.0094	0.0000	0.0000	0.0000	0.0000	0.0118

28 - 2016 - Cable Susp

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0618	0.0044	0.1416	0.0786	0.2864
Nov 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0709	0.0044	0.1626	0.0903	0.3283
Oct 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0705	0.0044	0.1616	0.0897	0.3263
Sep 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0627	0.0044	0.1436	0.0798	0.2905
Aug 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0541	0.0044	0.1240	0.0689	0.2514
Jul 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0552	0.0044	0.1265	0.0703	0.2564
Jun 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0518	0.0044	0.1187	0.0659	0.2409
May 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0469	0.0044	0.1074	0.0597	0.2184
Apr 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0678	0.0044	0.1554	0.0863	0.3139
Mar 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0680	0.0044	0.1560	0.0868	0.3159
Feb 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0605	0.0044	0.1388	0.0770	0.2805
Jan 2019	4,304,917	2,385,600	Gasoline	0.0000	0.0000	0.0583	0.0044	0.1337	0.0742	0.2706

29 - Adding CS

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0618	0.0045	0.1110	0.0786	0.2559
Nov 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0709	0.0045	0.1275	0.0903	0.2932
Oct 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0705	0.0045	0.1267	0.0897	0.2914
Sep 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0627	0.0045	0.1126	0.0798	0.2595
Aug 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0541	0.0045	0.0972	0.0689	0.2247
Jul 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0552	0.0045	0.0992	0.0703	0.2292
Jun 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0518	0.0045	0.0931	0.0659	0.2153
May 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0469	0.0045	0.0842	0.0597	0.1952
Apr 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0678	0.0045	0.1219	0.0863	0.2804
Mar 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0680	0.0045	0.1223	0.0866	0.2814
Feb 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0605	0.0045	0.1087	0.0770	0.2507
Jan 2019	4,347,752	2,385,600	Gasoline	0.0000	0.0000	0.0583	0.0045	0.1048	0.0742	0.2418

30 - IFR

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0825	0.0063	0.2629	0.0840	0.4357
Nov 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0955	0.0063	0.3044	0.0972	0.5034
Oct 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0973	0.0063	0.3102	0.0991	0.5130
Sep 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0888	0.0063	0.2832	0.0905	0.4688
Aug 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0784	0.0063	0.2498	0.0798	0.4143
Jul 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0812	0.0063	0.2587	0.0827	0.4289
Jun 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0763	0.0063	0.2431	0.0777	0.4034
May 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0682	0.0063	0.2174	0.0694	0.3614
Apr 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0975	0.0063	0.3109	0.0993	0.5140
Mar 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0961	0.0063	0.3063	0.0978	0.5065
Feb 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0832	0.0063	0.2653	0.0848	0.4396
Jan 2019	7,529,588	4,132,800	Gasoline	0.0000	0.0000	0.0785	0.0063	0.2503	0.0800	0.4152

31 - HMT IMPORT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	214,200	214,200	PCW - 99/1	0.0041	0.0069	0.0000	0.0000	0.0000	0.0000	0.0111
Nov 2019	214,200	214,200	PCW - 99/1	0.0043	0.0081	0.0000	0.0000	0.0000	0.0000	0.0124
Oct 2019	214,200	214,200	PCW - 99/1	0.0061	0.0091	0.0000	0.0000	0.0000	0.0000	0.0153
Sep 2019	214,200	214,200	PCW - 99/1	0.0065	0.0104	0.0000	0.0000	0.0000	0.0000	0.0169
Aug 2019	214,200	214,200	PCW - 99/1	0.0071	0.0114	0.0000	0.0000	0.0000	0.0000	0.0186
Jul 2019	214,200	214,200	PCW - 99/1	0.0073	0.0116	0.0000	0.0000	0.0000	0.0000	0.0189
Jun 2019	214,200	214,200	PCW - 99/1	0.0067	0.0108	0.0000	0.0000	0.0000	0.0000	0.0176
May 2019	214,200	214,200	PCW - 99/1	0.0062	0.0097	0.0000	0.0000	0.0000	0.0000	0.0159
Apr 2019	214,200	214,200	PCW - 99/1	0.0050	0.0085	0.0000	0.0000	0.0000	0.0000	0.0135
Mar 2019	214,200	214,200	PCW - 99/1	0.0043	0.0075	0.0000	0.0000	0.0000	0.0000	0.0118
Feb 2019	214,200	214,200	PCW - 99/1	0.0042	0.0066	0.0000	0.0000	0.0000	0.0000	0.0109
Jan 2019	214,200	214,200	PCW - 99/1	0.0044	0.0064	0.0000	0.0000	0.0000	0.0000	0.0108

32 - VFR

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	11,013,666	3,969,000	Jet Kerosene	0.0108	0.0714	0.0000	0.0000	0.0000	0.0000	0.0822
Nov 2019	11,013,666	3,969,000	Jet Kerosene	0.0133	0.0876	0.0000	0.0000	0.0000	0.0000	0.1008
Oct 2019	11,013,666	3,969,000	Jet Kerosene	0.0231	0.1071	0.0000	0.0000	0.0000	0.0000	0.1302
Sep 2019	11,013,666	3,969,000	Jet Kerosene	0.0333	0.1331	0.0000	0.0000	0.0000	0.0000	0.1664
Aug 2019	11,013,666	3,969,000	Jet Kerosene	0.0464	0.1574	0.0000	0.0000	0.0000	0.0000	0.2039
Jul 2019	11,013,666	3,969,000	Jet Kerosene	0.0526	0.1652	0.0000	0.0000	0.0000	0.0000	0.2177
Jun 2019	11,013,666	3,969,000	Jet Kerosene	0.0474	0.1517	0.0000	0.0000	0.0000	0.0000	0.1991
May 2019	11,013,666	3,969,000	Jet Kerosene	0.0394	0.1298	0.0000	0.0000	0.0000	0.0000	0.1692

Apr 2019	11,013,666	3,969,000	Jet Kerosene	0.0278	0.1074	0.0000	0.0000	0.0000	0.0000	0.1352
Mar 2019	11,013,666	3,969,000	Jet Kerosene	0.0205	0.0833	0.0000	0.0000	0.0000	0.0000	0.1039
Feb 2019	11,013,666	3,969,000	Jet Kerosene	0.0138	0.0723	0.0000	0.0000	0.0000	0.0000	0.0861
Jan 2019	11,013,666	3,969,000	Jet Kerosene	0.0116	0.0666	0.0000	0.0000	0.0000	0.0000	0.0782

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Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	7,017,137	2,608,200	Jet Kerosene	0.0067	0.0455	0.0000	0.0000	0.0000	0.0000	0.0522
Nov 2019	7,017,137	2,608,200	Jet Kerosene	0.0082	0.0558	0.0000	0.0000	0.0000	0.0000	0.0640
Oct 2019	7,017,137	2,608,200	Jet Kerosene	0.0143	0.0682	0.0000	0.0000	0.0000	0.0000	0.0826
Sep 2019	7,017,137	2,608,200	Jet Kerosene	0.0207	0.0848	0.0000	0.0000	0.0000	0.0000	0.1055
Aug 2019	7,017,137	2,608,200	Jet Kerosene	0.0289	0.1003	0.0000	0.0000	0.0000	0.0000	0.1292
Jul 2019	7,017,137	2,608,200	Jet Kerosene	0.0327	0.1052	0.0000	0.0000	0.0000	0.0000	0.1379
Jun 2019	7,017,137	2,608,200	Jet Kerosene	0.0295	0.0966	0.0000	0.0000	0.0000	0.0000	0.1261
May 2019	7,017,137	2,608,200	Jet Kerosene	0.0245	0.0827	0.0000	0.0000	0.0000	0.0000	0.1072
Apr 2019	7,017,137	2,608,200	Jet Kerosene	0.0173	0.0684	0.0000	0.0000	0.0000	0.0000	0.0857
Mar 2019	7,017,137	2,608,200	Jet Kerosene	0.0128	0.0563	0.0000	0.0000	0.0000	0.0000	0.0690
Feb 2019	7,017,137	2,608,200	Jet Kerosene	0.0086	0.0461	0.0000	0.0000	0.0000	0.0000	0.0547
Jan 2019	7,017,137	2,608,200	Jet Kerosene	0.0072	0.0424	0.0000	0.0000	0.0000	0.0000	0.0496

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Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0618	0.0054	0.1603	0.0786	0.3061
Nov 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0709	0.0054	0.1841	0.0903	0.3508
Oct 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0705	0.0054	0.1830	0.0897	0.3486
Sep 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0627	0.0054	0.1626	0.0798	0.3104
Aug 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0541	0.0054	0.1404	0.0689	0.2687
Jul 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0552	0.0054	0.1432	0.0703	0.2741
Jun 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0518	0.0054	0.1344	0.0659	0.2576
May 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0469	0.0054	0.1216	0.0597	0.2336
Apr 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0678	0.0054	0.1759	0.0863	0.3354
Mar 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0680	0.0054	0.1766	0.0866	0.3366
Feb 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0605	0.0054	0.1570	0.0770	0.2999
Jan 2019	5,086,655	2,788,800	Gasoline	0.0000	0.0000	0.0583	0.0054	0.1513	0.0742	0.2893

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Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0618	0.0054	0.3501	0.0786	0.5058
Nov 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0709	0.0054	0.4136	0.0903	0.5802
Oct 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0705	0.0054	0.4111	0.0897	0.5767
Sep 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0627	0.0054	0.3653	0.0798	0.5131
Aug 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0541	0.0054	0.3154	0.0689	0.4437
Jul 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0552	0.0054	0.3219	0.0703	0.4527
Jun 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0518	0.0054	0.3020	0.0659	0.4252
May 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0469	0.0054	0.2732	0.0597	0.3851
Apr 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0678	0.0054	0.3953	0.0863	0.5547
Mar 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0680	0.0054	0.3967	0.0866	0.5567
Feb 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0605	0.0054	0.3527	0.0770	0.4955
Jan 2019	5,033,111	2,617,902	Gasoline	0.0000	0.0000	0.0583	0.0054	0.3400	0.0742	0.4779

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Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0067	0.0015	0.0543	0.0126	0.0751
Nov 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0077	0.0015	0.0624	0.0144	0.0860
Oct 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0077	0.0015	0.0620	0.0144	0.0855
Sep 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0068	0.0015	0.0551	0.0128	0.0762
Aug 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0059	0.0015	0.0476	0.0110	0.0660
Jul 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0060	0.0015	0.0485	0.0112	0.0673
Jun 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0057	0.0015	0.0455	0.0105	0.0632
May 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0051	0.0015	0.0412	0.0095	0.0573
Apr 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0074	0.0015	0.0596	0.0138	0.0823
Mar 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0074	0.0015	0.0598	0.0139	0.0826
Feb 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0066	0.0015	0.0532	0.0123	0.0736
Jan 2019	616,824	299,478	Gasoline	0.0000	0.0000	0.0064	0.0015	0.0513	0.0119	0.0710

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Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	616,824	293,914	Gasoline	0.0000	0.0000	0.0067	0.0015	0.1342	0.0126	0.1550
Nov 2019	616,824	293,914	Gasoline	0.0000	0.0000	0.0077	0.0015	0.1542	0.0144	0.1779
Oct 2019	616,824	293,914	Gasoline	0.0000	0.0000	0.0077	0.0015	0.1532	0.0144	0.1768

Sep 2019	616,824	298,914	Gasoline	0.0000	0.0000	0.0068	0.0015	0.1362	0.0128	0.1573
Aug 2019	616,824	298,914	Gasoline	0.0000	0.0000	0.0059	0.0015	0.1176	0.0110	0.1360
Jul 2019	616,824	298,914	Gasoline	0.0000	0.0000	0.0060	0.0015	0.1200	0.0112	0.1387
Jun 2019	616,824	298,914	Gasoline	0.0000	0.0000	0.0057	0.0015	0.1126	0.0105	0.1303
May 2019	616,824	298,914	Gasoline	0.0000	0.0000	0.0051	0.0015	0.1018	0.0095	0.1180
Apr 2019	616,824	298,914	Gasoline	0.0000	0.0000	0.0074	0.0015	0.1473	0.0138	0.1700
Mar 2019	616,824	298,914	Gasoline	0.0000	0.0000	0.0074	0.0015	0.1479	0.0139	0.1706
Feb 2019	616,824	298,914	Gasoline	0.0000	0.0000	0.0066	0.0015	0.1314	0.0123	0.1519
Jan 2019	616,824	298,914	Gasoline	0.0000	0.0000	0.0064	0.0015	0.1267	0.0119	0.1464

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Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0067	0.0015	0.0694	0.0126	0.0902
Nov 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0077	0.0015	0.0797	0.0144	0.1034
Oct 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0077	0.0015	0.0792	0.0144	0.1027
Sep 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0068	0.0015	0.0704	0.0128	0.0915
Aug 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0059	0.0015	0.0608	0.0110	0.0792
Jul 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0060	0.0015	0.0620	0.0112	0.0808
Jun 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0057	0.0015	0.0582	0.0105	0.0759
May 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0051	0.0015	0.0526	0.0095	0.0688
Apr 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0074	0.0015	0.0761	0.0138	0.0993
Mar 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0074	0.0015	0.0764	0.0139	0.0992
Feb 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0066	0.0015	0.0679	0.0123	0.0883
Jan 2019	616,824	295,260	Gasoline	0.0000	0.0000	0.0064	0.0015	0.0655	0.0119	0.0852

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Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0067	0.0015	0.0536	0.0126	0.0745
Nov 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0077	0.0015	0.0616	0.0144	0.0853
Oct 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0077	0.0015	0.0612	0.0144	0.0848
Sep 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0068	0.0015	0.0544	0.0128	0.0755
Aug 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0059	0.0015	0.0470	0.0110	0.0654
Jul 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0060	0.0015	0.0480	0.0112	0.0667
Jun 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0057	0.0015	0.0450	0.0105	0.0627
May 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0051	0.0015	0.0407	0.0095	0.0569
Apr 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0074	0.0015	0.0589	0.0138	0.0816
Mar 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0074	0.0015	0.0591	0.0139	0.0819
Feb 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0066	0.0015	0.0525	0.0123	0.0729
Jan 2019	616,824	295,680	Gasoline	0.0000	0.0000	0.0064	0.0015	0.0506	0.0119	0.0704

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Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0618	0.0054	0.2850	0.0766	0.4308
Nov 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0709	0.0054	0.3274	0.0903	0.4940
Oct 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0705	0.0054	0.3254	0.0897	0.4910
Sep 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0627	0.0054	0.2892	0.0798	0.4370
Aug 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0541	0.0054	0.2496	0.0689	0.3779
Jul 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0552	0.0054	0.2548	0.0703	0.3856
Jun 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0518	0.0054	0.2391	0.0659	0.3622
May 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0469	0.0054	0.2163	0.0597	0.3282
Apr 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0678	0.0054	0.3129	0.0863	0.4723
Mar 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0680	0.0054	0.3140	0.0866	0.4740
Feb 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0605	0.0054	0.2791	0.0770	0.4220
Jan 2019	5,033,111	2,772,000	Gasoline	0.0000	0.0000	0.0583	0.0054	0.2691	0.0742	0.4070

44 - IFR

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0211	0.0067	0.1939	0.1228	0.3445
Nov 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0242	0.0067	0.2227	0.1411	0.3947
Oct 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0240	0.0067	0.2213	0.1402	0.3923
Sep 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0214	0.0067	0.1967	0.1246	0.3494
Aug 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0184	0.0067	0.1693	0.1076	0.3025
Jul 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0188	0.0067	0.1733	0.1098	0.3086
Jun 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0177	0.0067	0.1626	0.1030	0.2900
May 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0160	0.0067	0.1471	0.0932	0.2630
Apr 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0231	0.0067	0.2128	0.1348	0.3774
Mar 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0232	0.0067	0.2135	0.1353	0.3788
Feb 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0206	0.0067	0.1899	0.1203	0.3375
Jan 2019	7,664,237	4,365,900	Gasoline	0.0000	0.0000	0.0193	0.0067	0.1831	0.1159	0.3256

A1 - 2012-HT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	8,221	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Nov 2019	8,221	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Oct 2019	8,221	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002
Sep 2019	8,221	8,022	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Aug 2019	8,221	8,022	Gasoline Additive	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Jul 2019	8,221	8,022	Gasoline Additive	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0003
Jun 2019	8,221	8,022	Gasoline Additive	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
May 2019	8,221	8,022	Gasoline Additive	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002
Apr 2019	8,221	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002
Mar 2019	8,221	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Feb 2019	8,221	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jan 2019	8,221	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001

A2 - 2011-HT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	3,758	3,998	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nov 2019	3,758	3,998	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
Oct 2019	3,758	3,998	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Sep 2019	3,758	3,998	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Aug 2019	3,758	3,998	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jul 2019	3,758	3,998	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jun 2019	3,758	3,998	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
May 2019	3,758	3,998	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Apr 2019	3,758	3,998	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Mar 2019	3,758	3,998	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
Feb 2019	3,758	3,998	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jan 2019	3,758	3,998	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

A3 - HMT IMPORT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	10,084	9,996	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Nov 2019	10,084	9,996	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Oct 2019	10,084	9,996	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002
Sep 2019	10,084	9,996	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Aug 2019	10,084	9,996	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Jul 2019	10,084	9,996	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Jun 2019	10,084	9,996	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
May 2019	10,084	9,996	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Apr 2019	10,084	9,996	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Mar 2019	10,084	9,996	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Feb 2019	10,084	9,996	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jan 2019	10,084	9,996	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001

A4 - HT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	87,393	9,996	Biodiesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
Nov 2019	87,393	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Oct 2019	87,393	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Sep 2019	87,393	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Aug 2019	87,393	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jul 2019	87,393	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jun 2019	87,393	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
May 2019	87,393	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Apr 2019	87,393	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Mar 2019	87,393	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Feb 2019	87,393	9,996	Biodiesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jan 2019	87,393	9,996	Biodiesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

A5 - HT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Nov 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Oct 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Sep 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Aug 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jul 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jun 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
May 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Apr 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Mar 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001

Feb 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jan 2019	106,874	9,996	Biodiesel	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001

A6 - 2011-HT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	7,892	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Nov 2019	7,892	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Oct 2019	7,892	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Sep 2019	7,892	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002
Aug 2019	7,892	8,022	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Jul 2019	7,892	8,022	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Jun 2019	7,892	8,022	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
May 2019	7,892	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002
Apr 2019	7,892	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Mar 2019	7,892	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Feb 2019	7,892	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jan 2019	7,892	8,022	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001

A7 - 2011-HT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	10,100	10,122	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Nov 2019	10,100	10,122	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Sep 2019	10,100	10,122	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Aug 2019	10,100	10,122	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0003
Jul 2019	10,100	10,122	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0003
Jun 2019	10,100	10,122	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
May 2019	10,100	10,122	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Apr 2019	10,100	10,122	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002
Mar 2019	10,100	10,122	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Feb 2019	10,100	10,122	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jan 2019	10,100	10,122	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001

A8 - 2011-HT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	8,174	8,190	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Nov 2019	8,174	8,190	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Oct 2019	8,174	8,190	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Sep 2019	8,174	8,190	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Aug 2019	8,174	8,190	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Jul 2019	8,174	8,190	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
Jun 2019	8,174	8,190	Gasoline Additive	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
May 2019	8,174	8,190	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002
Apr 2019	8,174	8,190	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Mar 2019	8,174	8,190	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Feb 2019	8,174	8,190	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
Jan 2019	8,174	8,190	Gasoline Additive	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001

A9 - HMT IMPORT

Throughput Month	Throughput Amount (gals)	Max Volume (gals)	Product	Standing Losses tons	Working Losses tons	Rim Seal Losses tons	Withdrawl Losses tons	Deck Fitting Losses tons	Deck Seam Losses tons	Total Losses tons
Dec 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nov 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Oct 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Sep 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Aug 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jul 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jun 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
May 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apr 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mar 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Feb 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jan 2019	575	575	Gasoline Additive	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Totals:	**865,477,216**			**0.9792**	**3.6183**	**5.2320**	**0.5281**	**21.7026**	**7.7203**	**39.7806**

1. Tank Status is listed as current status of the tank. Throughput from earlier months may still display if the tank is OOS by the end of the reporting period.
2. Tank Throughput Emission Breakdown of Butyls Can Be Found in Attachment 1
3. VOC Emissions calculated from EPA's AP-42 method (Chapter 5.2 Transportation and marketing of Petroleum Liquids
4. Concentration of Gasoline Ethanol HAPs determined from EPA's document "Gasoline Distribution Industry (Stage II) - Background Information for Proposed Standards", Table 3-2 (1994)
5. Concentration of Distillate HAPs determined from API Publication 1673, Table 3-1 (1998)
6. Monthly actual data used in emissions totals. Values shown for temperature and vapor pressure are annual averages. Results may vary slightly.

BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Roof Landing Emissions
ONLY USING PTE DATA [2020 PTE]
Reporting Period (January 2019 to December 2019)

Tank Roof Landings Overview

Gasoline - Default HAP Profile

Tank Number	Number Landings	VOC Emissions tons	2,2,4-TMP (wt%) 0.7 tons	Benzene (wt%) 0.4 tons	Cresol (wt%) 0 tons	Cumene (wt%) 0 tons	Ethyl-benzene (wt%) 0.1 tons	Hexane (wt%) 1.4 tons	MTBE (wt%) 0 tons	Naphthalene (wt%) 0 tons	Phenol (wt%) 0 tons	Styrene (wt%) 0 tons	Toluene (wt%) 1.1 tons	Xylenes (wt%) 0.4 tons	HAP Emissions tons
28	3	2.2994	0.0161	0.0092	0.0000	0.0000	0.0023	0.0322	0.0000	0.0000	0.0000	0.0000	0.0253	0.0092	0.0943
29	3	2.1082	0.0148	0.0084	0.0000	0.0000	0.0021	0.0295	0.0000	0.0000	0.0000	0.0000	0.0232	0.0084	0.0864
30	3	4.3308	0.0303	0.0173	0.0000	0.0000	0.0043	0.0606	0.0000	0.0000	0.0000	0.0000	0.0476	0.0173	0.1776
37	3	1.8624	0.0130	0.0074	0.0000	0.0000	0.0019	0.0261	0.0000	0.0000	0.0000	0.0000	0.0205	0.0074	0.0764
38	3	2.4400	0.0171	0.0098	0.0000	0.0000	0.0024	0.0342	0.0000	0.0000	0.0000	0.0000	0.0268	0.0098	0.1000
39	3	0.3679	0.0026	0.0015	0.0000	0.0000	0.0004	0.0052	0.0000	0.0000	0.0000	0.0000	0.0040	0.0015	0.0151
40	3	0.3679	0.0026	0.0015	0.0000	0.0000	0.0004	0.0052	0.0000	0.0000	0.0000	0.0000	0.0040	0.0015	0.0151
41	3	0.3829	0.0027	0.0015	0.0000	0.0000	0.0004	0.0054	0.0000	0.0000	0.0000	0.0000	0.0042	0.0015	0.0157
42	3	0.3904	0.0027	0.0016	0.0000	0.0000	0.0004	0.0055	0.0000	0.0000	0.0000	0.0000	0.0043	0.0016	0.0160
43	3	2.9398	0.0206	0.0118	0.0000	0.0000	0.0029	0.0412	0.0000	0.0000	0.0000	0.0000	0.0323	0.0118	0.1205
44	3	3.8125	0.0267	0.0153	0.0000	0.0000	0.0038	0.0534	0.0000	0.0000	0.0000	0.0000	0.0419	0.0153	0.1563
Totals:	33	21.3023	0.1491	0.0852	0.0000	0.0000	0.0213	0.2982	0.0000	0.0000	0.0000	0.0000	0.2343	0.0852	0.8734

Breakdown of Tank Landings

Landing Date	Tank Name	Product In Tank	Roof Height (inches)	Days Idle	Product Left In Tank (ft)	Full Heel	Drain Dry	Standing Losses tons	Filling Losses tons	Total Losses tons
2019-04-15	28	Gasoline	40	4	0.025	Yes	No	0.3224	0.4978	0.8202
2019-04-15	43	Gasoline	54	3	0.025	Yes	No	0.2759	0.6734	0.9493
2019-04-15	41	Gasoline	42	3	0.025	Yes	No	0.0396	0.0837	0.1232
2019-04-15	30	Gasoline	31	4	0.025	Yes	No	0.9368	0.6631	1.5997
2019-04-15	38	Gasoline	43	4	0.025	Yes	No	0.3335	0.5354	0.8689
2019-04-15	38	Gasoline	43	3	0.025	Yes	No	0.2501	0.5354	0.7856
2019-04-15	29	Gasoline	36	4	0.025	Yes	No	0.3061	0.4477	0.7538
2019-04-15	42	Gasoline	43	4	0.025	Yes	No	0.0534	0.0857	0.1390
2019-04-15	43	Gasoline	54	4	0.025	Yes	No	0.3679	0.6734	1.0412
2019-04-15	44	Gasoline	43	4	0.025	Yes	No	0.5211	0.8366	1.3577
2019-04-15	28	Gasoline	40	3	0.025	Yes	No	0.2418	0.4978	0.7396
2019-04-15	30	Gasoline	31	3	0.025	Yes	No	0.7024	0.6631	1.3655
2019-04-15	39	Gasoline	40	3	0.025	Yes	No	0.0387	0.0796	0.1183
2019-04-15	41	Gasoline	42	4	0.025	Yes	No	0.0528	0.0837	0.1364
2019-04-15	28	Gasoline	40	3	0.025	Yes	No	0.2418	0.4978	0.7396
2019-04-15	41	Gasoline	42	3	0.025	Yes	No	0.0396	0.0837	0.1232
2019-04-15	44	Gasoline	43	3	0.025	Yes	No	0.3908	0.8366	1.2274
2019-04-15	30	Gasoline	31	3	0.025	Yes	No	0.7024	0.6631	1.3655
2019-04-15	39	Gasoline	40	3	0.025	Yes	No	0.0387	0.0796	0.1183
2019-04-15	40	Gasoline	40	4	0.025	Yes	No	0.0516	0.0796	0.1312
2019-04-15	29	Gasoline	36	3	0.025	Yes	No	0.2296	0.4477	0.6772
2019-04-15	42	Gasoline	43	3	0.025	Yes	No	0.0400	0.0857	0.1257
2019-04-15	44	Gasoline	43	3	0.025	Yes	No	0.3908	0.8366	1.2274
2019-04-15	37	Gasoline	31	4	0.025	Yes	No	0.2830	0.3850	0.6680
2019-04-15	37	Gasoline	31	3	0.025	Yes	No	0.2123	0.3850	0.5972
2019-04-15	38	Gasoline	43	3	0.025	Yes	No	0.2501	0.5354	0.7856
2019-04-15	39	Gasoline	40	4	0.025	Yes	No	0.0516	0.0796	0.1312
2019-04-15	42	Gasoline	43	3	0.025	Yes	No	0.0400	0.0857	0.1257
2019-04-15	43	Gasoline	54	3	0.025	Yes	No	0.2759	0.6734	0.9493
2019-04-15	29	Gasoline	36	3	0.025	Yes	No	0.2296	0.4477	0.6772
2019-04-15	37	Gasoline	31	3	0.025	Yes	No	0.2123	0.3850	0.5972
2019-04-15	40	Gasoline	40	3	0.025	Yes	No	0.0387	0.0796	0.1183
2019-04-15	40	Gasoline	40	3	0.025	Yes	No	0.0387	0.0796	0.1183

1. VOC Emissions calculated from EPA's AP-42 method (Chapter 5.2 Transportation and marketing of Petroleum Liquids
2. Concentration of Gasoline Ethanol HAPs determined from EPA's document "Gasoline Distribution Industry (Stage 1) - Background Information for Proposed Standards", Table 3-2 (1994)
3. Concentration of Distillate HAPs determined from API Publication 1673, Table 3-1 (1998)
4. Monthly actual data used in emissions totals. Values shown for temperature and vapor pressure are annual averages. Results may vary slightly.

BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Cleaning Emissions
ONLY USING PTE DATA [2020 PTE]
Reporting Period (January 2019 to December 2019)

Tank Cleaning Operations

Gasoline - Default HAP Profile

Tank Number	Number Cleanings	VOC Emissions tons	2,2,4-TMP (wt%) 0.7 tons	Benzene (wt%) 0.4 tons	Cresol (wt%) 0 tons	Cumene (wt%) 0 tons	Ethylbenzene (wt%) 0.1 tons	Hexane (wt%) 1.4 tons	MTBE (wt%) 0 tons	Naphthalene (wt%) 0 tons	Phenol (wt%) 0 tons	Styrene (wt%) 0 tons	Toluene (wt%) 1.1 tons	Xylenes (wt%) 0.4 tons	HAP Emissions tons
28	1	3.8734	0.0271	0.0155	0.0000	0.0000	0.0039	0.0542	0.0000	0.0000	0.0000	0.0000	0.0426	0.0155	0.1588
29	1	3.2929	0.0231	0.0132	0.0000	0.0000	0.0033	0.0461	0.0000	0.0000	0.0000	0.0000	0.0362	0.0132	0.1350
30	1	4.3013	0.0301	0.0172	0.0000	0.0000	0.0043	0.0602	0.0000	0.0000	0.0000	0.0000	0.0473	0.0172	0.1764
37	1	3.7029	0.0259	0.0148	0.0000	0.0000	0.0037	0.0518	0.0000	0.0000	0.0000	0.0000	0.0407	0.0148	0.1518
38	1	3.9290	0.0275	0.0157	0.0000	0.0000	0.0039	0.0550	0.0000	0.0000	0.0000	0.0000	0.0432	0.0157	0.1611
39	1	1.1455	0.0080	0.0046	0.0000	0.0000	0.0011	0.0160	0.0000	0.0000	0.0000	0.0000	0.0126	0.0046	0.0470
40	1	0.7953	0.0056	0.0032	0.0000	0.0000	0.0008	0.0111	0.0000	0.0000	0.0000	0.0000	0.0087	0.0032	0.0326
43	1	4.1289	0.0289	0.0165	0.0000	0.0000	0.0041	0.0578	0.0000	0.0000	0.0000	0.0000	0.0454	0.0165	0.1693
44	2	8.8661	0.0621	0.0355	0.0000	0.0000	0.0089	0.1241	0.0000	0.0000	0.0000	0.0000	0.0975	0.0355	0.3635
Totals:	10	34.0354	0.2382	0.1361	0.0000	0.0000	0.0340	0.4765	0.0000	0.0000	0.0000	0.0000	0.3744	0.1361	1.3955

Breakdown of Tank Cleaning Operations

Cleaning Date	Tank Name	Product In Tank	Idle Cleaning Days	Height of Product (ft)	Sludge Remove Days	Sludge Depth (ft)	Standing Losses tons	Purge Losses tons	Sludge Remove Losses tons	Filling Losses tons	Total Losses tons
2019-10-01	44	Gasoline	3	0.025	4	0.025	0.3250	0.8600	3.0330	0.2150	4.4331
2019-10-01	30	Gasoline	3	0.025	4	0.025	0.4640	0.6822	3.0096	0.1656	4.3013
2019-10-15	28	Gasoline	3	0.025	4	0.025	0.2008	0.5117	3.0330	0.1279	3.8734
2019-10-15	40	Gasoline	3	0.025	4	0	0.0321	0.0819	0.6908	0.0205	0.7953
2019-10-15	38	Gasoline	3	0.025	4	0.025	0.2080	0.5504	3.0330	0.1376	3.9290
2019-10-15	39	Gasoline	3	0.025	4	0.025	0.0321	0.0819	1.0110	0.0205	1.1455
2019-10-15	37	Gasoline	3	0.025	4	0.025	0.1752	0.3957	3.0330	0.0989	3.7029
2019-10-15	43	Gasoline	3	0.025	4	0.025	0.2308	0.6922	3.0330	0.1731	4.1289
2019-10-15	44	Gasoline	3	0.025	4	0.025	0.3250	0.8600	3.0330	0.2150	4.4331
2019-10-15	29	Gasoline	3	0.025	4	0.025	0.0714	0.1508	3.0330	0.0377	3.2929

1. VOC Emissions calculated from EPA's AP-42 method (Chapter 5.2 Transportation and marketing of Petroleum Liquids.
2. Concentration of Gasoline Ethanol HAPs determined from EPA's document "Gasoline Distribution Industry (Stage I) - Background Information for Proposed Standard", Table 3-2 (1994)
3. Concentration of Distillate HAPs determined from API Publication 1673, Table 3-1 (1998)
4. Monthly actual data used in emissions totals. Values shown for temperature and vapor pressure are annual averages. Results may vary slightly.

BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Transfer Rack Loading Operations
ONLY USING PTE DATA [2020 PTE]
Reporting Period (January 2019 to December 2019)

Transfer Rack Loading Operations VOC/HAP Emissions Overview

Transfer Rack	Total Gallons Loaded	VOC Emissions Before Control tons	VOC Emissions After Control tons	2,2,4-TMP tons	Benzene tons	Cresol tons	Cumene tons	Ethylbenzene tons	Hexane tons	MTBE tons	Naphthalene tons	Phenol tons	Styrene tons	Toluene tons	Xylenes tons	HAPs Emissions tons
All Racks	980,000,000	1,128.4829	22.6837	0.1460	0.0924	0.0000	0.0002	0.0218	0.2948	0.0000	0.0000	0.0000	0.0000	0.2347	0.0863	0.8761

VCU Combustion Emissions

Transfer Rack	CO tons	CO2 tons	SO2 tons	PM tons	NOx tons	N2O tons	CH4 tons
All Racks	16.7790	3,923.1538	0.0109	0.4024	6.7197	0.0362	0.1831

Breakdown of Loading Operations

Distillate Fuel Oil No.2 Loading Operations - Default HAP Profile

Transfer Rack	Control Device	Gallons Loaded	VOC Emissions Before Control tons	VOC Emissions After Control tons	2,2,4-TMP (wt%) 0 tons	Benzene (wt%) 0.49 tons	Cresol (wt%) 0 tons	Cumene (wt%) 0.01 tons	Ethylbenzene (wt%) 0.05 tons	Hexane (wt%) 0.16 tons	MTBE (wt%) 0 tons	Naphthalene (wt%) 0 tons	Phenol (wt%) 0 tons	Styrene (wt%) 0 tons	Toluene (wt%) 0.29 tons	Xylenes (wt%) 0.15 tons	HAPs Emissions tons
Truck Rack		360,000,000	1.3752	1.3752	0.0000	0.0067	0.0000	0.0001	0.0007	0.0022	0.0000	0.0000	0.0000	0.0000	0.0040	0.0022	0.0160
Truck Rack - Lane 10		120,000,000	0.4584	0.4584	0.0000	0.0022	0.0000	0.0000	0.0002	0.0007	0.0000	0.0000	0.0000	0.0000	0.0013	0.0007	0.0053

Gasoline Loading Operations - Default HAP Profile

Transfer Rack	Control Device	Gallons Loaded	VOC Emissions Before Control tons	VOC Emissions After Control tons	2,2,4-TMP (wt%) 0.7 tons	Benzene (wt%) 0.4 tons	Cresol (wt%) 0 tons	Cumene (wt%) 0 tons	Ethylbenzene (wt%) 0.1 tons	Hexane (wt%) 1.4 tons	MTBE (wt%) 0 tons	Naphthalene (wt%) 0 tons	Phenol (wt%) 0 tons	Styrene (wt%) 0 tons	Toluene (wt%) 1.1 tons	Xylenes (wt%) 0.4 tons	HAPs Emissions tons
Truck Rack	VCU 01	500,000,000	1,126.8493	20.8500	0.1460	0.0834	0.0000	0.0000	0.0209	0.2919	0.0000	0.0000	0.0000	0.0000	0.2294	0.0834	0.8549

VCU 01 (VCU) Control Efficiencies

Permitted (Default) Control Efficiencies

Active Date	Product Type	Efficiency (%)	Efficiency (mg/l)
2019-01-01	Gasoline	0	10

Stack Test Control Efficiencies

Active Date	Product Type	Efficiency (%)	Efficiency (mg/l)

Note: Calculations use stack test control efficiencies when available. If no stack test control efficiency is available, the permitted efficiences are used in the calculations

1. Conversion factor for Controlled Emissions

	8.337E-06
1000	mg/gram
454	gram/lb
3.785	L/gal

2. AP-42 Method- Chapter 5.2 Transportation and Marketing of Petroleum Liquids

3. Formula used when control efficiency is provided (mg/l) = (Gallons Loaded) * (Control Efficiency) * (Conversion Factor)

4. Transfer fugitives factor for this location is 8 mg/l

BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Fugitive Emissions
ONLY USING PTE DATA [2020 PTE]
Reporting Period (January 2019 to December 2019)

Fugitive Equipment

Fugitive Equipment	Light Devices	Heavy Devices	Gas Devices	VOC Emissions tons	2,2,4-TMP (wt%) tons	Benzene (wt%) tons	Cresol (wt%) tons	Cumene (wt%) tons	EthylBenzene (wt%) tons	Hexane (wt%) tons	MTBE (wt%) tons	Naphthalene (wt%) tons	Phenol (wt%) tons	Styrene (wt%) tons	Toluene (wt%) tons	Xylenes (wt%) tons	HAPs Emissions tons
Flanges	471	686	31	0.0994	0.0003	0.0004	0.0000	0.0000	0.0001	0.0008	0.0000	0.0000	0.0000	0.0000	0.0007	0.0003	0.0026
Loading Arm Valve	12	18	5	0.0131	0.0000	0.0001	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0003
Pumps	13	12	0	0.1281	0.0005	0.0006	0.0000	0.0000	0.0001	0.0010	0.0000	0.0000	0.0000	0.0000	0.0009	0.0004	0.0034
Valves	168	252	12	0.1759	0.0005	0.0008	0.0000	0.0000	0.0001	0.0012	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0041
Racks				16.6800	0.1168	0.0667	0.0000	0.0000	0.0167	0.2335	0.0000	0.0000	0.0000	0.0000	0.1835	0.0667	0.6839
Totals:	**664.0000**	**968.0000**	**48.0000**	**17.0965**	**0.1181**	**0.0688**	**0.0000**	**0.0000**	**0.0170**	**0.2366**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1862**	**0.0678**	**0.6943**

Fugitive Factors Detail

Fugitive Equipment	Factor Year	Light Devices lbs per hour	Heavy Devices lbs per hour	Gas Devices lbs per hour
Flanges	2019	0.000017	0.000017	0.000090
Loading Arm Valve	2019	0.000095	0.000095	0.000029
Other	2019	0.000287	0.000287	0.000265
Pumps	2019	0.001170	0.001170	0.000143
Valves	2019	0.000095	0.000095	0.000029

1. Fugitive emissing factors determined from EPA protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017), Nov. 1995.
2. Concentration of Gasoline/Ethanol HAPs determined from EPA's document "Gasoline Distribution Industry (Stage 1) - Background Information for Proposed Standard", Table 3-2 (1994)
3. Concentration of Distillate HAPs determined from API Publication 1673, Table 3-1 (1998)

BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Remediation Projects and Miscellaneous Emissions
ONLY USING PTE DATA [2020 PTE]
Reporting Period (January 2019 to December 2019)

Remediation Projects

There were no remediation projects during this period

Miscellaneous Emissions

There were no miscellaneous emissions during this period

Combustion Emissions from Other Sources

There were no miscellaneous emissions during this period

1. Pipeline equipment fugitive emissions factors determined from EPA protocol for Equipment Leak Emissions Estimates (EPA-453/R-95-017). Nov. 1995
2. Other pipeline equipment fugitive emissions include scraper traps, prover loops, sample sheds, strainers, etc.
3. VOC emissions from releases are considered to be the entire weight of the spilled material with was not recovered

BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Physical Property & Calculation Information
ONLY USING PTE DATA [2020 PTE]

Product Information

Product	Type	Density	KC (AP42 Factor)	Mol Wt	VP Mol Wt	RVP	Coef A	Coef B	NOx (lb/gal scf)	CO (lb/gal scf)	SO2 (lb/gal scf)	PM (lb/gal scf)	CO2 (lb/gal scf)	N2O (lb/gal scf)	CH4 (lb/gal scf)
Asphalt	Distillate	7.9	1	387	190	0	10.104	10475.5	0	0	0	0	0	0	0
ATB	Crude Oil	7.6	0	0		0	0	0	0	0	0	0	0	0	0
Biodiesel	Distillate	7.3	1	277.4	32.1	0	10.622	8137.7	0	0	0	0	0	0	0
Blendstocks	Gasoline	5.6	1	92	62	13.8	11.63	4999.5	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Butane		2.07	1	58.12	58.12	45.85	12.2769062	4717.932319	0.2153	0.3623	0	0	10.714	0.0003	0.0224
Cold Flow Additive	Gasoline	7.36	1	120	80	0.9	0	0	0	0	0	0	0	0	0
Condensate	Gasoline	6.0129	1	124.4	57.3	0	9.1521	3964.3	0	0	0	0	0	0	0
Cooling Tower Water	Gasoline	8.34	1	0	0	0	0	0	0	0	0	0	0	0	0
Crude - Shale Liquids	Crude oil	6	0.4	60	52	15	11.6	4937.9	0.055	0.005	0.0314	0.005058	24.4	0	0
Crude - Utica	Crude oil	6.7017	0.4	92	68	7	10.9379157	4894.773259	0.055	0.005	0.0314	0.005058	0	0	0
Crude Oil (RVP 5/8)	Crude oil	7.1	0.4	207	50	8	13.8221522	6560.665823	0.055	0.005	0.0314	0.005058	24.4	0	0
Crude Oils (RVP 11)	Crude oil	6.675	0.4	207	50	11	11.69481243	5165.908711	0.055	0.005	0.0314	0.005058	24.4	0	0
Crude RVP 8	Crude oil	7.1	0.4	207	50	8	10.80876414	4732.4	0.055	0.005	0.0314	0.005058	0	0	0
Denatured Ethanol (2% Gas)	Gasoline	6.38	1	48.66	48.66	2.1	12.71360301	6878.334053	0	0	0	0	0	0	0
Denatured Ethanol (3% Gas)	Gasoline	6.38	1	46.07	46.07	2.1	15.80681429	8257.840734	0.0334	0.0834	0.00138	0.002	0	0.00002	0.00018
Denatured Ethanol (5% Gas)	Gasoline	6.38	1	48.66	48.66	3.17	12.5449	6359.8381	0.0334	0.0834	0.00136	0.002	12.1	0.00002	0.00018
Diesel Additive	Other	6.1	1	130	130	0	17.681	11890.714	0	0	0	0	0	0	0
Distillate Fuel Oil No.1	Distillate	6.73	1	162	130	0.029	12.39	8933	0	0	0	0	0	0	0
Distillate Fuel Oil No.2	Distillate	7.1	1	188	130	0.022	12.101	8907	0.02	0.005	0.0284	0.002	22.3	0.00026	0.00091
Distillate Fuel Oil No.2 (85F Flash)	Distillate	7.1	1	188	130	1.2	15.42387696	8518.828087	0.02	0.005	0.0284	0.002	22.3	0.00018	0.00018
Distillate Fuel Oil No.2 (HI VP)	Distillate	7.1	1	188	130	2.25	12.4202128	6473.813012	0	0	0	0	0	0	0
Distillate Fuel Oil No.4	Distillate	6.09999969477621	1	130	130	0.03	15.0261144	10373.73688	0.02	0.005	0.0284	0.002	22.3	0.00018	0.00091
Ethane	Distillate	4.544	1	0	30.07	0	0	0	0	0	0	0	0	0	0
Fuel Gas	Gasoline	0	0	0		0	0	0	0	0	0	0	0	0	0
Gasoline	Gasoline	5.6	1	92	67	9	11.75923519	5315.057683	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	69	8	11.88034292	5614.400643	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	96	60.15	15	11.5998779333478	4937.93060603046	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	68	7.8	11.80003654	5420.704955	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	66	10	11.72368567	5237.273366	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	68	6.8	11.84203207	5521.996438	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	65	11.5	11.68120631	5134.091305	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	66	10.5	11.70905162	5201.253047	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	68	7	11.8331	5500.5958	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	68	6.9	11.83756356	5511.218582	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	62	14	11.62099578	4988.665979	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	63	12.5	11.6556	5072.5331	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	65	11	11.695	5168.9	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	61	14.5	11.61025477	4962.559107	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	62	12.9	11.64504291	5049.276634	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	62	13.5	11.63212745	5015.715123	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline	Gasoline	5.6	1	92	63	7.5	11.81204151	5479.660434	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 1	Gasoline	5.6	1	92	68	1	12.4287778	6937.203059	0	0	0	0	0	0	0
Gasoline - RVP 10	Gasoline	5.6	1	92	66	10	11.72368567	5237.273366	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 10.5	Gasoline	5.6	1	92	66	10.5	11.70905162	5201.253047	0.0334	0.0834	0.001136	0.002	0	0.00018	0.00091
Gasoline - RVP 11	Gasoline	5.6	1	92	65	11	11.69481243	5168.908711	0.0334	0.0834	0.001136	0.002	0	0.00018	0.00091
Gasoline - RVP 11.5	Gasoline	5.6	1	92	65	11.5	11.68120631	5134.091305	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 12	Gasoline	5.6	1	92	64	12	11.66817935	5102.670815	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 12.5 (HES5)	Gasoline	4.93	1	62.67	62.67	12.5	11.65715701	5076.655386	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 13	Gasoline	5.6	1	92	64	13	11.64367929	5043.577678	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 13.5	Gasoline	5.6	1	92	62	13.5	11.63212745	5015.715123	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 13.8	Gasoline	5.6	1	92	62	13.8	11.62712	5002.603	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 14.1	Gasoline	5.6	1	92	62	14.1	11.61631721	4983.611366	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 14.5	Gasoline	5.6	1	92	61	1.5	11.61025477	4962.559107	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 15	Gasoline	5.6	1	96	60.15	15	11.5998779333478	4937.93060603046	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 2	Gasoline	5.6	1	92	63	2	12.21651423	6425.473231	0.0334	0.0834	0.001136	0.002	0	0.00018	0.00091
Gasoline - RVP 5	Gasoline	5.6	1	92	68	5	11.93614924	5749.003194	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 6	Gasoline	5.6	1	92	68	6	11.88034292	5614.400643	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 7	Gasoline	5.6	1	92	68	7	11.8331	5500.5958	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 8	Gasoline	5.6	1	92	68	8	11.79228708	5402.013575	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline - RVP 9	Gasoline	5.6	1	92	68	9	11.75623519	5315.057683	0.0334	0.0834	0.001136	0.002	19.5	0.00018	0.00091
Gasoline Additive	Other	7.24	1	188	130	0	15.672	10310.68	0	0	0	0	0	0	0
Generic PCW	Gasoline	8.25	1	143.16	63.114	7	11.83315935	5500.6	0	0	0	0	0	0	0
Jet Kerosene	Distillate	7	1	162	130	0.029	12.39	8933	0.0334	0.0834	0.0426	0.002	21.5	0	0
Jet Naptha (JP-4)	Distillate	6.4	1	120	80	0	11.583	5764.3	0.02	0.005	0.0426	0.002	21.5	0	0
JP-8	Distillate	7	1	163	130	0.029	12.39	8933	0.0334	0.0834	0.0426	0.002	0	0	0
Kerosene Additive	Other	6.1	1	130	130	0	17.681	11890.714	0	0	0	0	0	0	0
Light Condensate	Distillate	5.22	0	0		0	0	0	0	0	0	0	0	0	0
LPG/Light Naptha	Distillate	5.22	0	0		0	0	0	0	0	0	0	0	0	0
Methanol	Other	6.63	1	32.04	32.04	0	0	0	0	0	0	0	0	0	0

MGO	Distillate	7.1	1	168	130	0.022	12.101	8907	0.02	0.005	0.0284	0.002	22.3	0.00018	0.00091
Natural Gas		0	1	0	0	0	0	0	0.0001	0.000084	0.0000006	0.0000076	0.12	0.0000022	0.0000023
Natural Gasoline	Gasoline	5.44	1	79.8	65.2	12.4	11.62651101	5092.168503	0.0334	0.0834	0.001136	0.002	0	0.00018	0.00091
No. 6 Fuel Oil	Distillate	7.9	1	387	130	0	10.781	8933	0.055	0.005	0.0314	0.005058	25	0.0002	0.00099
PCW - 99/1	Gasoline	8.29	1	18.136	18.02	0.75	12.51683354	7149.590127	0	0	0	0	0	0	0
Propane		4.2	1	0	0	0	0	0	0.013	0.0075	0.000054	0.0007	12.5	0.00012	0.0006
Propylene	Other	0	1	0	0	0	0	0	0	0	0	0	0	0	0
PTE Diesel Additive XOM PR	Gasoline	7.4	1	120	120	0.8	12.22962771	6951.78116	0	0	0	0	0	0	0
Red Dye - Unisol Liquid Red BK50	Distillate	6	1	0	0	0.24	0	0	0	0	0	0	0	0	0
Therminol 55	Gasoline	7.36	1	320	320	0	13.76181754	12892.17656	0	0	0	0	0	0	0
Toluene	Other	7.261	1	92.13	92.13	0	18.4261	4497.7666	0	0	0	0	0	0	0
Transmix	Gasoline	5.6	1	68	68	7.4	11.833	5503.6	0.0334	0.0834	0.001136	0.002	19.5	18	0.00091
Transmix (1.82 RVP)	Gasoline	5.6	1	93	68	1.82	12.22593741	6447.960352	0	0	0	0	0	0	0
Transmix (RVP 1.37)	Gasoline	6.4	1	120	80	1.37	12.6	6853.56	0	0	0	0	0	0	0
Transmix - (66G/34D Mix)	Gasoline	6.4	1	141.4	98.5	5.75	11.89336988	5645.821133	0	0	0	0	0	0	0
Transmix - (68G/32D Mix)	Gasoline	6.006	1	109.96	65.01	9.13	11.75184555	5304.470265	0	0	0	0	0	0	0
Transmix - (75G/25D Mix)	Gasoline	5.91	1	105.46	65	11.25	11.688	5150.3	0	0	0	0	0	0	0
Transmix - (75G/25D Mix)	Gasoline	5.91	1	105.46	65	10.125	11.72	5228.1	0	0	0	0	0	0	0
Transmix - (75G/25D Mix)	Gasoline	5.91	1	105.46	65	6.75	11.844	5527.4	0	0	0	0	0	0	0
Transmix - (75G/25D Mix)	Gasoline	5.91	1	105.46	65	8.625	11.769	5346.5	0	0	0	0	0	0	0
Wastewater	Gasoline	8.34	1	0	0	0	0	0	0	0	0	0	0	0	0
Water	Other	0	1	0	0	0	0	0	0	0	0	0	0	0	0

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 16
South Portland Terminal (SPTPM)

Identification		**Shell Characteristics**		**Tank Construction and Rim-Seal System**	
Tank Name	16	Internal Shell Condition:		Construction:	
Configuration	2012-VFRT	Shell Color/Shade:	White/White	Primary Seal:	
City	South Portland	Shell/Paint Condition:	/Good	Secondary Seal:	
State	ME				
Type of Tank	Vertical Fixed Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:	Good	Vacuum Settings (psig):	0
		Roof Color/Shade:	White/White	Pressure Settings (psig):	0.03
Tank Dimensions		Type:	Cone		
Shell Height/Length (ft):	35	Fitting Category:		**Tank Options**	
Diameter (ft):	50			Is Tank Heated?	No
Volume (gallons):	514038	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	0	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	0	Deck Type:			
		Construction:			
		Deck Seam:	(Length: 0 ft)		

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1, Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6855 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 16
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Jet Kerosene	Good	Jan	35.4	31.29	39.51	45.4	0.0035	0.00301	0.00407	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Feb	36.87	32.28	41.45	45.4	0.0037	0.00313	0.00436	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Mar	41.56	37.07	46.06	45.4	0.00437	0.00372	0.00512	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Apr	46.44	41.38	51.49	45.4	0.00519	0.00435	0.00618	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	May	51.25	45.58	56.92	45.4	0.00613	0.00504	0.00743	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Jun	55.47	49.47	61.48	45.4	0.00708	0.00577	0.00864	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Jul	58.15	52.19	64.11	45.4	0.00774	0.00633	0.00942	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Aug	57.3	51.62	62.97	45.4	0.00752	0.00621	0.00908	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Sep	53.23	47.96	58.5	45.4	0.00656	0.00548	0.00783	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Oct	48.01	43.23	52.78	45.4	0.00548	0.00464	0.00646	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Nov	43.22	39.55	46.89	45.4	0.00464	0.00407	0.00528	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Dec	37.7	34.02	41.39	45.4	0.00381	0.00333	0.00435	130			162	RVP:0.029 A:12.39 B:8933

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 16
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Tank Diameter (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawal Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	1,382,682	1,382,682	1,382,682	1,382,682	1,382,682	1,382,682	1,382,682	1,382,682	1,382,682	1,382,682	1,382,682	1,382,682
Shell Clingage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7	7	7	7	7	7	7	7	7	7	7	7
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	**2.9297**	**3.1135**	**3.918**	**4.9905**	**6.7368**	**7.8609**	**8.7221**	**8.0776**	**6.4118**	**5.0991**	**3.2141**	**2.604**
Vapor Space Volume (cu ft)	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0313	0.035	0.0339	0.038	0.0425	0.0448	0.0442	0.0421	0.0392	0.0357	0.0272	0.0277
Vented Vapor Saturation Factor	0.9967	0.9965	0.9958	0.9951	0.9942	0.9933	0.9927	0.9929	0.9938	0.9948	0.9956	0.9964
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235	35383.8235
Tank Diameter (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Space Outage (ft)	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208
Tank Shell Height (ft)	35	35	35	35	35	35	35	35	35	35	35	35
Average Liquid Height (ft)	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Roof Outage (ft)	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft)	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625
Shell Radius (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Daily Avg. Liquid Surface Temperature (deg R):	495.0684	495.5352	501.232	506.1059	510.9189	515.1438	517.8206	516.9653	512.9016	507.6766	502.6384	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sq ft/day):	597.1021	683.0387	1221.4395	1492.4331	1767.1939	1931.5393	1909.9654	1693.8809	1343.3212	927.6629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0313	0.035	0.0339	0.038	0.0425	0.0448	0.0442	0.0421	0.0392	0.0357	0.0272	0.0277

Daily Vapor Temperature Range (deg R):	18.9	19.6	18.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	18.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	508.1059	510.9189	515.1436	517.8206	518.9553	512.6016	507.6786	502.8894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	18.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	18.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9967	0.9965	0.9958	0.9951	0.9942	0.9933	0.9927	0.9929	0.9938	0.9948	0.9956	0.9964
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Vapor Space Outage (ft):	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208	18.0208
Working Losses - Fixed Roof Tanks (lb):	**14.9974**	**15.8196**	**18.7224**	**22.228**	**26.2489**	**30.2959**	**33.1374**	**32.2049**	**28.0344**	**23.4772**	**19.8651**	**16.3055**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Net Throughput (gal/mo):	1,382,682,001	382,682,001	382,682,001	382,682,001	382,682,001	382,682,001	382,682,001	382,682,001	382,682,001	382,682,001	382,682,001	382,682,00
Turnovers:	34.4951	34.4951	34.4951	34.4951	34.4951	34.4951	34.4951	34.4951	34.4951	34.4951	34.4951	34.4951
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	480354.4255480354	4255480354	4255480354	4255480354	4255480354	4255480354	4255480354	4255480354	4255480354	4255480354	4255480354	4255
Maximum Liquid Height (ft):	32.75	32.75	32.75	32.75	32.75	32.75	32.75	32.75	32.75	32.75	32.75	32.75
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	17.9271	18.9331	22.6404	27.2186	32.9857	38.1569	41.6595	40.2825	34.4962	28.5764	23.0692	19.1094

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 16
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)			Floating Roof Losses (lbs)			
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Jet Kerosene	63.8782	281.3768	0.0000	0.0000	0.0000	0.0000	345.2550

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 17
South Portland Terminal (SPTPM)

Identification		**Shell Characteristics**		**Tank Construction and Rim-Seal System**	
Tank Name	17	Internal Shell Condition:		Construction:	
Configuration	PROXY-VFRT	Shell Color/Shade:	White/White	Primary Seal:	
City	South Portland	Shell/Paint Condition:	/Good	Secondary Seal:	
State	ME				
Type of Tank	Vertical Fixed Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:	Good	Vacuum Settings (psia):	-0.03
		Roof Color/Shade:	White/White	Pressure Settings (psia):	0.03
Tank Dimensions		Type:	Cone		
Shell Height/Length (ft):	35	Fitting Category:		**Tank Options**	
Diameter (ft):	70			Is Tank Heated?	No
Volume (gallons):	931266	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	0	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	0	Deck Type:			
		Construction:			
		Deck Seam:	(Length: 0 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6885 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 17
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Jet Kerosene	Good	Jan	35.4	31.29	39.51	45.4	0.0035	0.00301	0.00407	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Feb	36.87	32.28	41.45	45.4	0.0037	0.00313	0.00436	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Mar	41.56	37.07	46.06	45.4	0.00437	0.00372	0.00512	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Apr	46.44	41.38	51.49	45.4	0.00519	0.00435	0.00618	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	May	51.25	45.58	56.92	45.4	0.00613	0.00504	0.00743	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Jun	55.47	49.47	61.48	45.4	0.00708	0.00577	0.00864	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Jul	58.15	52.19	64.11	45.4	0.00774	0.00633	0.00942	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Aug	57.3	51.62	62.97	45.4	0.00752	0.00621	0.00908	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Sep	53.23	47.98	58.5	45.4	0.00656	0.00548	0.00783	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Oct	48.01	43.23	52.78	45.4	0.00548	0.00464	0.00646	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Nov	43.22	39.55	46.89	45.4	0.00464	0.00407	0.00528	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Dec	37.7	34.02	41.39	45.4	0.00381	0.00333	0.00435	130			162	RVP:0.029 A:12.39 B:8933

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 17
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mph)^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Tank Diameter (ft)	70	70	70	70	70	70	70	70	70	70	70	70
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	2,710,448	2,710,448	2,710,448	2,710,448	2,710,448	2,710,448	2,710,448	2,710,448	2,710,448	2,710,448	2,710,448	2,710,448
Shell Clingage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7	7	7	7	7	7	7	7	7	7	7	7
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	70	70	70	70	70	70	70	70	70	70	70	70
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	70	70	70	70	70	70	70	70	70	70	70	70
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	4.75	5.0295	6.3978	8.1754	11.0763	12.9953	14.4978	13.4361	10.6213	8.4056	5.3389	4.6032
Vapor Space Volume (cu ft):	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0295	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265
Vented Vapor Saturation Factor:	0.9971	0.9969	0.9964	0.9957	0.9949	0.9941	0.9936	0.9938	0.9946	0.9954	0.9961	0.9968
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272	60532.9272
Tank Diameter (ft):	70	70	70	70	70	70	70	70	70	70	70	70
Vapor Space Outage (ft):	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292
Tank Shell Height (ft):	35	35	35	35	35	35	35	35	35	35	35	35
Average Liquid Height (ft):	20	20	20	20	20	20	20	20	20	20	20	20
Roof Outage (ft):	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft):	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292	0.7292
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625
Shell Radius (ft):	35	35	35	35	35	35	35	35	35	35	35	35
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Daily Avg. Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	506.1059	510.9169	515.1436	517.8206	516.9653	512.9016	507.6766	502.8894	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day):	597.1021	688.0387	1221.4595	1492.4381	1767.1939	1931.5368	1909.9954	1698.9309	1343.3212	927.0629	571.7295	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0295	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	18.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia)	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1059	510.9169	515.1436	517.8206	516.9053	512.9016	507.6788	502.8594	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	18.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9971	0.9969	0.9964	0.9957	0.9949	0.9941	0.9936	0.9938	0.9945	0.9954	0.9961	0.9968
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Vapor Space Outage (ft):	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292	15.7292
Working Losses - Fixed Roof Tanks (lb):	**29.3949**	**31.0064**	**36.696**	**43.5669**	**51.4479**	**59.38**	**64.9493**	**63.1216**	**55.0454**	**46.0154**	**38.9159**	**31.9587**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Net Throughput (gal/mo):	2,710,448.002	2,710,448.002	2,710,448.002	2,710,448.002	2,710,448.002	2,710,448.002	2,710,448.002	2,710,448.002	2,710,448.002	2,710,448.002	2,710,448.002	2,710,448.00
Turnovers:	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	1149917.159	1149149917.159	1149149917.159	1149149917.159	1149149917.159	1149149917.159	1149149917.159	1149149917.159	1149149917.159	1149149917.159	1149149917.159	1149149917.159
Maximum Liquid Height (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Tank Diameter (ft):	70	70	70	70	70	70	70	70	70	70	70	70
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	34.1449	36.0359	43.0938	51.7422	62.5242	72.3753	79.4470	76.5577	65.6687	54.4210	44.2548	36.5619

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 17
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Jet Kerosene	105.3272	551.4983	0.0000	0.0000	0.0000	0.0000	656.8255

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 18
South Portland Terminal (SPTPM)

Identification

Tank Name	18
Configuration	VFR
City	South Portland
State	ME
Type of Tank	Vertical Fixed Roof Tank
Description	

Tank Dimensions

Shell Height/Length (ft):	39.2
Diameter (ft):	50
Volume (gallons):	575400
No. of Columns:	0
Eff. Col. Diam (ft):	0

Shell Characteristics

Internal Shell Condition:	Good
Shell Color/Shade:	Grey/Light
Shell/Paint Condition:	Good/

Roof Characteristics

Roof Condition:	Good
Roof Color/Shade:	Grey/Light
Type:	Cone
Fitting Category:	

Deck Characteristics

Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System

Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings

Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options

Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors			
		KFa (lb-mole/yr)	KFb (lb-mole/(yr·mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6835 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 18
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Jet Kerosene		Jan	38.39	32.73	44.05	47.62	0.0039	0.00318	0.00478	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Feb	40.71	33.82	47.59	47.62	0.00424	0.00331	0.00541	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Mar	46.38	38.72	54.03	47.62	0.00518	0.00395	0.00674	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Apr	52.04	43.12	60.96	47.62	0.0063	0.00482	0.0085	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		May	57.66	47.41	67.9	47.62	0.00762	0.00537	0.01065	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Jun	62.36	51.35	73.37	47.62	0.0089	0.00615	0.01287	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Jul	64.98	54.07	75.89	47.62	0.00969	0.00675	0.01371	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Aug	63.5	53.43	73.58	47.62	0.00924	0.00661	0.01275	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Sep	58.4	49.65	67.15	47.62	0.00781	0.00581	0.0104	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Oct	51.96	44.79	59.14	47.62	0.00628	0.0049	0.008	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Nov	46.13	40.98	51.28	47.62	0.00514	0.00428	0.00614	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Dec	40.35	35.42	45.27	47.62	0.00419	0.00351	0.00499	130			162	RVP:0.029 A:12.39 B:8933

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 18
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mph)^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent:	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	1,548,828	1,548,828	1,548,828	1,548,828	1,548,828	1,548,828	1,548,828	1,548,828	1,548,828	1,548,828	1,548,828	1,548,828
Shell Clinage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7	7	7	7	7	7	7	7	7	7	7	7
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole^2/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	4.621	5.4905	8.1592	11.0409	15.6476	18.8181	20.8629	18.4278	13.237	9.1579	5.2684	4.2951
Vapor Space Volume (cu ft):	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0407	0.0496	0.0551	0.0642	0.0738	0.0793	0.0785	0.0725	0.063	0.0517	0.0371	0.0355
Vented Vapor Saturation Factor:	0.9959	0.9956	0.9946	0.9935	0.9921	0.9908	0.99	0.9904	0.9919	0.9935	0.9947	0.9956
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595	39680.6595
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Space Outage (ft):	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
Tank Shell Height (ft):	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2
Average Liquid Height (ft):	20	20	20	20	20	20	20	20	20	20	20	20
Roof Outage (ft):	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft):	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
Roof Height (ft):	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
Roof Slope (ft/ft):	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Shell Radius (ft):	25	25	25	25	25	25	25	25	25	25	25	25
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg. Liquid Surface Temperature (deg R):	498.058	500.3771	505.0456	511.7115	517.3276	522.0327	524.6466	523.1746	518.0713	511.6316	505.6037	500.0171
Ideal Gas Constant R (psia cuft/(lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R):	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692
Tank Paint Solar Absorbance (Shell):	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Tank Paint Solar Absorbance (Roof):	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Daily Total Solar Insulation Factor (Btu/sqft/day):	597.1021	888.0387	1221.4695	1492.4331	1767.1939	1931.5398	1909.9654	1698.9809	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0407	0.0496	0.0551	0.0642	0.0738	0.0793	0.0785	0.0725	0.063	0.0517	0.0371	0.0355

Daily Vapor Temperature Range (def R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg Liquid Surface Temperature (deg R):	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6456	523.1746	518.0713	511.6316	505.6037	500.0171
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9959	0.9956	0.9946	0.9935	0.9921	0.9908	0.99	0.9904	0.9919	0.9935	0.9947	0.9956
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Vapor Space Outage (ft):	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
Working Losses - Fixed Roof Tanks (lb):	**18.6527**	**20.2695**	**24.7567**	**30.1008**	**36.3817**	**42.5083**	**46.2915**	**44.126**	**37.2949**	**30.0189**	**24.5486**	**20.0107**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Net Throughput (gal/mo):	1,548,828,001	548,828,001	548,828,001	548,828,001	548,828,001	548,828,001	548,828,001	548,828,001	548,828,001	548,828,001	548,828,001	548,828,00
Turnovers:	36.1508	36.1508	36.1508	36.1508	36.1508	36.1508	36.1508	36.1508	36.1508	36.1508	36.1508	36.1508
Turnover Factor:	0.9965	0.9965	0.9965	0.9965	0.9965	0.9965	0.9965	0.9965	0.9965	0.9965	0.9965	0.9965
Maximum Liquid Volume (gal):	513355.8746	513355.8746	513355.8746	513355.8746	513355.8746	513355.8746	513355.8746	513355.8746	513355.8746	513355.8746	513355.8746	513355.8746
Maximum Liquid Height (ft):	35	35	35	35	35	35	35	35	35	35	35	35
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	23.2738	25.7601	32.9159	41.1417	52.0293	61.3265	67.1543	62.6539	50.5319	39.1768	29.8149	24.3058

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 18
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Jet Kerosene	135.0245	374.9604	0.0000	0.0000	0.0000	0.0000	509.9850

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 19
South Portland Terminal (SPTPM)

Identification	
Tank Name	19
Configuration	PROXY-VFRT
City	South Portland
State	ME
Type of Tank	Vertical Fixed Roof Tank
Description	

Tank Dimensions	
Shell Height/Length (ft):	35
Diameter (ft):	66
Volume (gallons):	999600
No. of Columns:	0
Eff. Col. Diam (ft):	0

Shell Characteristics	
Internal Shell Condition:	
Shell Color/Shade:	White/White
Shell/Paint Condition:	/Good

Roof Characteristics	
Roof Condition:	Good
Roof Color/Shade:	White/White
Type:	Cone
Fitting Category:	

Deck Characteristics	
Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System	
Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings	
Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options	
Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6685 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 19
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Jet Kerosene	Good	Jan	35.4	31.29	39.51	45.4	0.0035	0.00301	0.00407	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Feb	36.87	32.28	41.45	45.4	0.0037	0.00313	0.00436	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Mar	41.56	37.07	46.06	45.4	0.00437	0.00372	0.00512	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Apr	46.44	41.38	51.49	45.4	0.00519	0.00435	0.00618	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	May	51.25	45.58	56.92	45.4	0.00613	0.00504	0.00743	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Jun	55.47	49.47	61.48	45.4	0.00708	0.00577	0.00864	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Jul	58.15	52.19	64.11	45.4	0.00774	0.00633	0.00942	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Aug	57.3	51.62	62.97	45.4	0.00752	0.00621	0.00908	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Sep	53.23	47.96	58.5	45.4	0.00656	0.00548	0.00783	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Oct	48.01	43.23	52.78	45.4	0.00548	0.00464	0.00646	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Nov	43.22	39.55	46.89	45.4	0.00464	0.00407	0.00528	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Dec	37.7	34.02	41.39	45.4	0.00381	0.00333	0.00435	130			162	RVP:0.029 A:12.39 B:8933

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 19
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Tank Diameter (ft)	66	66	66	66	66	66	66	66	66	66	66	66
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	2,409,533	2,409,533	2,409,533	2,409,533	2,409,533	2,409,533	2,409,533	2,409,533	2,409,533	2,409,533	2,409,533	2,409,533
Shell Clinage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7	7	7	7	7	7	7	7	7	7	7	7
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	66	66	66	66	66	66	66	66	66	66	66	66
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	66	66	66	66	66	66	66	66	66	66	66	66
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	4.2115	4.4593	5.6725	7.2486	9.6207	11.5221	12.8543	11.913	9.4173	7.4527	4.7337	4.0814
Vapor Space Volume (cu ft)	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871
Vapor Density (lb/cu ft)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor	0.0296	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265
Vented Vapor Saturation Factor	0.9971	0.9969	0.9964	0.9957	0.9949	0.9941	0.9936	0.9938	0.9946	0.9955	0.9962	0.9968
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871	53669.9871
Tank Diameter (ft)	66	66	66	66	66	66	66	66	66	66	66	66
Vapor Space Outage (ft)	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875
Tank Shell Height (ft)	35	35	35	35	35	35	35	35	35	35	35	35
Average Liquid Height (ft)	20	20	20	20	20	20	20	20	20	20	20	20
Roof Outage (ft)	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft)	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft)	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625
Shell Radius (ft)	33	33	33	33	33	33	33	33	33	33	33	33
Vapor Density												
Vapor Density (lb/cu ft)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Daily Avg. Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	516.6653	512.9016	507.6766	502.6894	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	688.0387	1221.4895	1492.4361	1767.1939	1931.5398	1909.9654	1698.9609	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0296	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6756	502.8894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9971	0.9969	0.9964	0.9957	0.9949	0.9941	0.9936	0.9938	0.9946	0.9955	0.9962	0.9968
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Vapor Space Outage (ft):	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875	15.6875
Working Losses - Fixed Roof Tanks (lb):	**26.1315**	**27.5641**	**32.622**	**38.7301**	**45.7351**	**52.7876**	**57.7386**	**56.1138**	**48.9342**	**40.9067**	**34.5955**	**28.4106**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0035	0.0037	0.0044	0.0052	0.0061	0.0071	0.0077	0.0075	0.0066	0.0055	0.0046	0.0038
Net Throughput (gal/mo):	2,409,533.00	2,409,533.00	2,409,533.00	2,409,533.00	2,409,533.00	2,409,533.00	2,409,533.00	2,409,533.00	2,409,533.00	2,409,533.00	2,409,533.00	2,409,533.00
Turnovers:	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428	28.2428
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	1022252.88661022252.88661022252.88661022252.88661022252.88661022252.88661022252.88661022252.88661022252.88661022252.88661022252.8866											
Maximum Liquid Height (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Tank Diameter (ft):	66	66	66	66	66	66	66	66	66	66	66	66
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	30.3430	32.0233	38.2945	45.9788	55.5568	64.3097	70.5928	68.0268	58.3515	48.3594	39.3291	32.4920

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 19
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Jet Kerosene	93.3869	490.2707	0.0000	0.0000	0.0000	0.0000	583.6577

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 26
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	26	Internal Shell Condition:	Good	Construction:	
Configuration	VFR	Shell Color/Shade:	Grey/Light	Primary Seal:	
City	South Portland	Shell/Paint Condition:	Good/	Secondary Seal:	
State	ME				
Type of Tank	Vertical Fixed Roof Tank	Roof Characteristics		Breather Settings	
Description		Roof Condition:	Good	Vacuum Settings (psia):	-0.03
		Roof Color/Shade:	Grey/Light	Pressure Settings (psia):	0.03
Tank Dimensions		Type:	Cone		
Shell Height/Length (ft):	35	Fitting Category:		Tank Options	
Diameter (ft):	65			Is Tank Heated?	No
Volume (gallons):	982800	Deck Characteristics		Is Tank Underground?	No
No. of Columns:	0	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	0	Deck Type:			
		Construction:			
		Deck Seam:	(Length: 0 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6555 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 26
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Jet Kerosene		Jan	38.39	32.73	44.05	47.62	0.0039	0.00318	0.00478	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Feb	40.71	33.82	47.59	47.62	0.00424	0.00331	0.00541	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Mar	46.38	38.72	54.03	47.62	0.00518	0.00395	0.00674	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Apr	52.04	43.12	60.96	47.62	0.0063	0.00462	0.0085	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		May	57.66	47.41	67.9	47.62	0.00762	0.00537	0.01065	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Jun	62.36	51.35	73.37	47.62	0.0089	0.00615	0.01267	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Jul	64.98	54.07	75.89	47.62	0.00969	0.00675	0.01371	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Aug	63.5	53.43	73.58	47.62	0.00924	0.00661	0.01275	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Sep	58.4	49.65	67.15	47.62	0.00781	0.00581	0.0104	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Oct	51.96	44.79	59.14	47.62	0.00628	0.0049	0.008	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Nov	46.13	40.98	51.28	47.62	0.00514	0.00428	0.00614	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Dec	40.35	35.42	45.27	47.62	0.00419	0.00351	0.00499	130			162	RVP:0.029 A:12.39 B:8933

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 26
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg'n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Tank Diameter (ft)	65	65	65	65	65	65	65	65	65	65	65	65
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	2,337,070	2,337,070	2,337,070	2,337,070	2,337,070	2,337,070	2,337,070	2,337,070	2,337,070	2,337,070	2,337,070	2,337,070
Shell Clingage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7	7	7	7	7	7	7	7	7	7	7	7
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	65	65	65	65	65	65	65	65	65	65	65	65
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	65	65	65	65	65	65	65	65	65	65	65	65
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	6.2092	7.3781	10.9663	14.843	21.042	25.3124	28.0575	24.7892	17.6011	12.3116	7.0782	5.7716
Vapor Space Volume (cu ft)	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor	0.0407	0.0466	0.0551	0.0642	0.0738	0.0793	0.0785	0.0725	0.063	0.0517	0.0371	0.0355
Vented Vapor Saturation Factor	0.9968	0.9965	0.9957	0.9948	0.9937	0.9927	0.992	0.9924	0.9936	0.9948	0.9958	0.9965
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083	51931.5083
Tank Diameter (ft)	65	65	65	65	65	65	65	65	65	65	65	65
Vapor Space Outage (ft)	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65
Tank Shell Height (ft)	35	35	35	35	35	35	35	35	35	35	35	35
Average Liquid Height (ft)	20	20	20	20	20	20	20	20	20	20	20	20
Roof Outage (ft)	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft):	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500
Roof Height (ft)	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19
Roof Slope (ft/ft)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Shell Radius (ft)	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg. Liquid Surface Temperature (deg R)	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6466	523.1746	518.0713	511.6318	505.6037	500.0171
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892
Tank Paint Solar Absorbance (Shell)	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Tank Paint Solar Absorbance (Roof)	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	889.0387	1221.4695	1492.4381	1767.1939	1931.5393	1909.9654	1698.9909	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0407	0.0466	0.0551	0.0642	0.0738	0.0793	0.0785	0.0725	0.063	0.0517	0.0371	0.0355

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg Liquid Surface Temperature (deg R):	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6466	523.1746	518.0713	511.6316	505.8037	500.0171
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9968	0.9965	0.9957	0.9948	0.9937	0.9927	0.992	0.9924	0.9936	0.9948	0.9958	0.9965
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Vapor Space Outage (ft):	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65
Working Losses - Fixed Roof Tanks (lb):	**27.2081**	**29.5665**	**36.1118**	**43.907**	**53.0688**	**62.0055**	**67.5235**	**64.3551**	**54.4008**	**43.7875**	**35.6082**	**29.1889**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Net Throughput (gal/mo):	2,337,070.002	337,070.002	337,070.002	337,070.002	337,070.002	337,070.002	337,070.002	337,070.002	337,070.002	337,070.002	337,070.002	337,070.00
Turnovers:	37.6571	37.6571	37.6571	37.6571	37.6571	37.6571	37.6571	37.6571	37.6571	37.6571	37.6571	37.6571
Turnover Factor:	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633
Maximum Liquid Volume (gal):	743832.6526	743632.6526	743632.6526	743632.6526	743632.6526	743632.6526	743632.6526	743632.6526	743632.6526	743632.6526	743632.6526	743632.6526
Maximum Liquid Height (ft):	30	30	30	30	30	30	30	30	30	30	30	30
Tank Diameter (ft):	65	65	65	65	65	65	65	65	65	65	65	65
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	33.4173	36.9446	47.0781	58.7501	74.1108	87.3179	95.5913	89.1543	72.2019	56.0991	42.8884	34.9606

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 26
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Jet Kerosene	181.5704	546.9420	0.0000	0.0000	0.0000	0.0000	728.5125

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 27
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	27	Internal Shell Condition:	Good	Construction:	Riveted
Configuration	2nd bottom install	Shell Color/Shade:	Grey/Light	Primary Seal:	
City	South Portland	Shell/Paint Condition:	Good/Good	Secondary Seal:	
State	ME				
Type of Tank	Vertical Fixed Roof Tank	Roof Characteristics		Breather Settings	
Description		Roof Condition:	Good	Vacuum Settings (psia):	-0.03
		Roof Color/Shade:	Grey/Light	Pressure Settings (psia):	0.03
Tank Dimensions		Type:	Cone		
Shell Height/Length (ft):	40	Fitting Category:		Tank Options	
Diameter (ft):	50			Is Tank Heated?	No
Volume (gallons):	532266	Deck Characteristics		Is Tank Underground?	No
No. of Columns:	0	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	0	Deck Type:			
		Construction:			
		Deck Seam:	(Length: 0 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data Used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6555 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 27
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Jet Kerosene	Good	Jan	38.39	32.73	44.05	47.62	0.0039	0.00318	0.00478	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Feb	40.71	33.82	47.59	47.62	0.00424	0.00331	0.00541	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Mar	46.38	38.72	54.03	47.62	0.00518	0.00395	0.00674	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Apr	52.04	43.12	60.96	47.62	0.0063	0.00482	0.0085	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	May	57.66	47.41	67.9	47.62	0.00782	0.00537	0.01065	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Jun	62.36	51.35	73.37	47.62	0.0089	0.00615	0.01267	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Jul	64.98	54.07	75.89	47.62	0.00969	0.00675	0.01371	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Aug	63.6	53.43	73.58	47.62	0.00924	0.00681	0.01275	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Sep	58.4	49.65	67.15	47.62	0.00781	0.00581	0.0104	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Oct	51.96	44.79	59.14	47.62	0.00628	0.0049	0.008	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Nov	46.13	40.98	51.28	47.62	0.00514	0.00428	0.00614	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene	Good	Dec	40.35	35.42	45.27	47.62	0.00419	0.00351	0.00499	130			162	RVP:0.029 A:12.39 B:8933

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 27
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg'n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Tank Diameter (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	1,580,436	1,580,436	1,580,436	1,580,436	1,580,436	1,580,436	1,580,436	1,580,436	1,580,436	1,580,436	1,580,436	1,580,436
Shell Clingage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7	7	7	7	7	7	7	7	7	7	7	7
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr)	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	**4.8079**	**5.7125**	**8.4886**	**11.4892**	**16.2778**	**19.575**	**21.7013**	**19.1688**	**13.77**	**9.5273**	**5.4791**	**4.4688**
Vapor Space Volume (cu ft):	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559
Vapor Density (lb/cu ft)	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor	0.0407	0.0496	0.0551	0.0642	0.0738	0.0793	0.0765	0.0725	0.063	0.0517	0.0371	0.0355
Vented Vapor Saturation Factor	0.9958	0.9954	0.9944	0.9932	0.9918	0.9904	0.9896	0.9901	0.9916	0.9932	0.9944	0.9955
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559	40251.6559
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Space Outage (ft)	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
Tank Shell Height (ft)	40	40	40	40	40	40	40	40	40	40	40	40
Average Liquid Height (ft)	20	20	20	20	20	20	20	20	20	20	20	20
Roof Outage (ft)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft):	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
Roof Height (ft):	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
Roof Slope (ft/ft)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Shell Radius (ft):	25	25	25	25	25	25	25	25	25	25	25	25
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg. Liquid Surface Temperature (deg R)	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6466	523.1746	518.0713	511.6316	505.6037	500.0171
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892
Tank Paint Solar Absorbance (Shell)	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Tank Paint Solar Absorbance (Roof)	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	888.0387	1221.4695	1492.4381	1767.1939	1931.5398	1909.9654	1698.9809	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0407	0.0496	0.0551	0.0642	0.0738	0.0793	0.0765	0.0725	0.063	0.0517	0.0371	0.0355

Daily Vapor Temperature Range (def R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg Liquid Surface Temperature (deg R):	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6466	523.1745	518.0713	511.6316	505.6037	500.0171
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9958	0.9954	0.9944	0.9932	0.9918	0.9904	0.9896	0.9901	0.9916	0.9932	0.9944	0.9955
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Vapor Space Outage (ft):	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
Working Losses - Fixed Roof Tanks (lb):	**18.7164**	**20.3387**	**24.8412**	**30.2036**	**36.5059**	**42.6534**	**46.4495**	**44.2766**	**37.4222**	**30.1213**	**24.6324**	**20.079**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Net Throughput (gal/mo):	1,580,436.001,580,436.001,580,436.001,580,436.001,580,436.001,580,436.001,580,436.001,580,436.001,580,436.001,580,436.001,580,436.001,580,436.00											
Turnovers:	36.8886	36.8886	36.8886	36.8886	36.8886	36.8886	36.8886	36.8886	36.8886	36.8886	36.8886	36.8886
Turnover Factor:	0.9799	0.9799	0.9799	0.9799	0.9799	0.9799	0.9799	0.9799	0.9799	0.9799	0.9799	0.9799
Maximum Liquid Volume (gal):	513355.8746513355.8746513355.8746513355.8746513355.8746513355.8746513355.8746513355.8746513355.8746513355.8746513355.8746											
Maximum Liquid Height (ft):	35	35	35	35	35	35	35	35	35	35	35	35
Tank Diameter (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	23.5243	26.0512	33.3298	41.6898	52.7837	62.2284	68.1507	63.4454	51.1922	39.6487	30.1114	24.5478

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 27
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Jet Kerosene	140.4632	376.2402	0.0000	0.0000	0.0000	0.0000	516.7034

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 32
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	32	Internal Shell Condition:		Construction:	
Configuration	VFR	Shell Color/Shade:	Grey/Light	Primary Seal:	
City	South Portland	Shell/Paint Condition:	I	Secondary Seal:	
State	ME				
Type of Tank	Vertical Fixed Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:	Good	Vacuum Settings (psia):	-0.03
		Roof Color/Shade:	Grey/Light	Pressure Settings (psia):	0.03
Tank Dimensions		Type:	Cone		
Shell Height/Length (ft):	44.6	Fitting Category:		**Tank Options**	
Diameter (ft):	125			Is Tank Heated?	No
Volume (gallons):	3969000	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	0	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	0	Deck Type:			
		Construction:			
		Deck Seam:	(Length: 0 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6666 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 32
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Jet Kerosene		Jan	38.39	32.73	44.05	47.62	0.0039	0.00318	0.00478	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Feb	40.71	33.82	47.59	47.62	0.00424	0.00331	0.00541	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Mar	46.38	38.72	54.03	47.62	0.00518	0.00395	0.00674	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Apr	52.04	43.12	60.96	47.62	0.0063	0.00462	0.0085	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		May	57.66	47.41	67.9	47.62	0.00762	0.00537	0.01065	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Jun	62.36	51.35	73.37	47.62	0.0089	0.00615	0.01267	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Jul	64.98	54.07	75.89	47.62	0.00969	0.00675	0.01371	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Aug	63.6	53.43	73.58	47.62	0.00924	0.00661	0.01275	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Sep	58.4	49.65	67.15	47.62	0.00781	0.00581	0.0104	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Oct	51.96	44.79	59.14	47.62	0.00628	0.0049	0.008	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Nov	46.13	40.98	51.28	47.62	0.00514	0.00428	0.00614	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Dec	40.35	35.42	45.27	47.62	0.00419	0.00351	0.00499	130			162	RVP:0.029 A:12.39 B:8933

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 32
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Tank Diameter (ft)	125	125	125	125	125	125	125	125	125	125	125	125
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	11,013,666	11,013,666	11,013,666	11,013,666	11,013,666	11,013,666	11,013,666	11,013,666	11,013,666	11,013,666	11,013,666	11,013,666
Shell Clingage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7	7	7	7	7	7	7	7	7	7	7	7
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	23.2556	27.6332	41.0719	55.5907	78.8063	94.7935	105.1158	92.8387	66.6684	46.1099	28.5099	21.6166
Vapor Space Volume (cu ft):	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639
Vapor Density (lb/cu ft)	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0407	0.0496	0.0551	0.0642	0.0738	0.0793	0.0765	0.0725	0.063	0.0517	0.0371	0.0355
Vented Vapor Saturation Factor	0.9957	0.9964	0.9957	0.9947	0.9936	0.9926	0.9919	0.9923	0.9935	0.9947	0.9957	0.9965
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639	194508.7639
Tank Diameter (ft)	125	125	125	125	125	125	125	125	125	125	125	125
Vapor Space Outage (ft)	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65	15.65
Tank Shell Height (ft)	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6
Average Liquid Height (ft)	30	30	30	30	30	30	30	30	30	30	30	30
Roof Outage (ft)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft)	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500	1.2500
Roof Height (ft)	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91
Roof Slope (ft/ft)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Shell Radius (ft)	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
Vapor Density												
Vapor Density (lb/cu ft)	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg Liquid Surface Temperature (deg R)	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6466	523.1746	518.0713	511.6316	505.6037	500.0171
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892	507.2892
Tank Paint Solar Absorbance (Shell)	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Tank Paint Solar Absorbance (Roof)	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	888.0387	1221.4895	1492.4381	1767.1939	1931.5393	1909.9654	1698.9809	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0407	0.0496	0.0551	0.0642	0.0738	0.0793	0.0765	0.0725	0.063	0.0517	0.0371	0.0355

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg Liquid Surface Temperature (deg R):	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6466	523.1746	518.0713	511.6316	505.6037	500.0171
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9967	0.9964	0.9957	0.9947	0.9936	0.9926	0.9919	0.9923	0.9935	0.9947	0.9957	0.9965
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Vapor Space Outage (ft):	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85
Working Losses - Fixed Roof Tanks (lb):	**133.1017**	**144.6391**	**176.6584**	**214.7928**	**259.612**	**303.3301**	**330.3256**	**314.8735**	**266.1282**	**214.2081**	**175.1732**	**142.792**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Net Throughput (gal/mo):	11,013,666.0011	11,013,666.0011	11,013,666.0011	11,013,666.0011	11,013,666.0011	11,013,666.0011	11,013,666.0011	11,013,666.0011	11,013,666.0011	11,013,666.0011	11,013,666.0011	11,013,666.00
Turnovers:	31.9906	31.9906	31.9906	31.9906	31.9906	31.9906	31.9906	31.9906	31.9906	31.9906	31.9906	31.9906
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	4125181.13484125181.	13484125181.	13484125181.	13484125181.	13484125181.	13484125181.	13484125181.	13484125181.	13484125181.	13484125181.	13484125181.	1348
Maximum Liquid Height (ft):	45	45	45	45	45	45	45	45	45	45	45	45
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	156.3573	172.2723	217.7303	270.3835	338.4182	398.1286	435.4415	407.7122	332.7965	260.3150	201.6831	164.4086

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 32
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Jet Kerosene	680.0157	2,675.6345	0.0000	0.0000	0.0000	0.0000	3,355.6502

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 33
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	33	Internal Shell Condition:	Good	Construction:	
Configuration	VFR	Shell Color/Shade:	Grey/Light	Primary Seal:	
City	South Portland	Shell/Paint Condition:	Good/	Secondary Seal:	
State	ME				
Type of Tank	Vertical Fixed Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:	Good	Vacuum Settings (psia):	-0.03
		Roof Color/Shade:	Grey/Light	Pressure Settings (psia):	0.03
Tank Dimensions		Type:	Cone		
Shell Height/Length (ft):	44.4	Fitting Category:		**Tank Options**	
Diameter (ft):	100			Is Tank Heated?	No
Volume (gallons):	2608200	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	0	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	0	Deck Type:			
		Construction:			
		Deck Seam:	(Length: 0 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6855 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 33
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Jet Kerosene		Jan	38.39	32.73	44.05	47.62	0.0039	0.00318	0.00478	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Feb	40.71	33.82	47.59	47.62	0.00424	0.00331	0.00541	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Mar	46.38	38.72	54.03	47.62	0.00518	0.00395	0.00674	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Apr	52.04	43.12	60.96	47.62	0.0063	0.00482	0.0085	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		May	57.66	47.41	67.9	47.62	0.00762	0.00537	0.01065	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Jun	62.36	51.35	73.37	47.62	0.0089	0.00615	0.01267	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Jul	64.98	54.07	75.89	47.62	0.00969	0.00675	0.01371	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Aug	63.5	53.43	73.58	47.62	0.00924	0.00661	0.01275	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Sep	58.4	49.65	67.15	47.62	0.00781	0.00581	0.0104	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Oct	51.96	44.79	59.14	47.62	0.00628	0.0049	0.008	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Nov	46.13	40.98	51.28	47.62	0.00514	0.00428	0.00614	130			162	RVP:0.029 A:12.39 B:8933
Jet Kerosene		Dec	40.35	35.42	45.27	47.62	0.00419	0.00351	0.00499	130			162	RVP:0.029 A:12.39 B:8933

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 33
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Tank Diameter (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	7,017,137	7,017,137	7,017,137	7,017,137	7,017,137	7,017,137	7,017,137	7,017,137	7,017,137	7,017,137	7,017,137	7,017,137
Shell Clingage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7	7	7	7	7	7	7	7	7	7	7	7
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Deck Fitting Losses[4] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	14.4623	17.1849	25.5429	34.5731	49.0129	58.961	65.3791	57.7425	41.464	28.6768	18.4857	13.4432
Vapor Space Volume (cu ft):	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0407	0.0496	0.0551	0.0642	0.0738	0.0793	0.0765	0.0725	0.063	0.0517	0.0371	0.0355
Vented Vapor Saturation Factor	0.9968	0.9965	0.9958	0.9949	0.9938	0.9928	0.9922	0.9925	0.9937	0.9949	0.9958	0.9966
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172	120951.3172
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Space Outage (ft):	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
Tank Shell Height (ft):	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
Average Liquid Height (ft):	30	30	30	30	30	30	30	30	30	30	30	30
Roof Outage (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Height (ft)	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13
Roof Slope (ft/ft):	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Shell Radius (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg. Liquid Surface Temperature (deg R)	499.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6468	523.1746	518.0713	511.6316	505.6037	500.0171
Ideal Gas Constant R (psia cuft/lb-mol-deg R):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692
Tank Paint Solar Absorbance (Shell):	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Tank Paint Solar Absorbance (Roof):	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Daily Total Solar Insulation Factor (Btu/sqft/day):	597.1021	838.0387	1221.4895	1492.4381	1767.1939	1931.5393	1909.9654	1698.9609	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0407	0.0496	0.0551	0.0642	0.0738	0.0793	0.0765	0.0725	0.063	0.0517	0.0371	0.0355

Daily Vapor Temperature Range (def R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Daily Avg Liquid Surface Temperature (deg R)	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6466	523.1746	518.0713	511.6316	505.6037	500.0171
Daily Ambient Temperature Range (deg R)	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9968	0.9965	0.9958	0.9949	0.9938	0.9928	0.9922	0.9925	0.9937	0.9949	0.9958	0.9966
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Vapor Space Outage (ft):	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
Working Losses - Fixed Roof Tanks (lb):	**84.6031**	**92.1539**	**112.5544**	**136.8509**	**165.4066**	**193.2607**	**210.4504**	**200.6153**	**169.5582**	**136.4784**	**111.6081**	**90.9771**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0039	0.0042	0.0052	0.0063	0.0076	0.0089	0.0097	0.0092	0.0078	0.0063	0.0051	0.0042
Net Throughput (gal/mo):	7,017,137.00	7,017,137.00	7,017,137.00	7,017,137.00	7,017,137.00	7,017,137.00	7,017,137.00	7,017,137.00	7,017,137.00	7,017,137.00	7,017,137.00	7,017,137.00
Turnovers:	31.8472	31.8472	31.8472	31.8472	31.8472	31.8472	31.8472	31.8472	31.8472	31.8472	31.8472	31.8472
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	2640115.92632640115.92632640115.92632640115.92632640115.92632640115.92632640115.92632640115.92632640115.92632640115.92632640115.9263											
Maximum Liquid Height (ft):	45	45	45	45	45	45	45	45	45	45	45	45
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	99.2655	109.3388	138.0972	171.4241	214.4195	252.2216	275.8395	258.3578	211.0223	165.1552	128.0947	104.4203

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 33
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Jet Kerosene	422.9295	1,704.7270	0.0000	0.0000	0.0000	0.0000	2,127.6565

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 28
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	28	Internal Shell Condition:	Light Rust	Construction:	Riveted
Configuration	2016 - Cable Susp	Shell Color/Shade:	White/White	Primary Seal:	Vapor-mounted
City	South Portland	Shell/Paint Condition:	/Good	Secondary Seal:	Rim-mounted
State	ME				
Type of Tank:	Internal Floating Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:	Good	Vacuum Settings (psia):	-0.03
		Roof Color/Shade:	White/White	Pressure Settings (psia):	0.03
Tank Dimensions		Type:			
Shell Height/Length (ft):	40.2	Fitting Category:		**Tank Options**	
Diameter (ft):	100			Is Tank Heated?	No
Volume (gallons):	2355600	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	9	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	1	Deck Type:	Bolted		
		Construction:	Sheet		
		Deck Seam:	5 ft wide (Length: 1571 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	**Quantity**	**KFa (lb-mole/yr)**	**KFb (lb-mole/(yr mph^n))**	**m**	**Fitting Loss Factor (lb/lb-mole)**
Access Hatch (24-In. Diam.) - Unbolted Cover, Gasketed	2	31	5.2	1.3	62.0000
Automatic Gauge Float Well - Bolted Cover, Gasketed	1	2.8	0	0	2.8000
Column Well (24-In. Diam.) - Built-Up Col.-Sliding Cover, Gask.	9	33	0	0	297.0000
Ladder Well (36-In. Diam.) - Sliding Cover, Gasketed	1	56	0	0	56.0000
Stub Drain (1-In. Diameter) - None	47	1.2	0	0	56.4000
Vacuum Breaker (10-In. Diam.) - Weighted Mech. Actuation, Gask.	3	6.2	1.2	0.94	18.6000
Gauge-Hatch/Sample Well (8-In. Diam.) - Weighted Mech. Actuation, Gask.	1	0.47	0.02	0.97	0.4700
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w. Pole Sleeve	1	11	46	1.4	11.0000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6685 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 28
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.08177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.38	51.49	45.4	5.59415	5.06218	6.16982	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33801	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	58.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.88721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.96	58.5	45.4	5.05684	4.55645	5.60469	65			92	RVP:11 A:11.695 B:5168.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 28
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	**116.6195**	**120.97**	**136.0751**	**135.5841**	**93.7303**	**103.6092**	**110.4035**	**108.1849**	**125.3205**	**141.0052**	**141.8878**	**123.5239**
Seal Factor A (lb-mole/ft-yr):	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Seal Factor B (lb-mole/ft-yr (mpg^n):	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7666	5.9344	5.3222
Tank Diameter (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	**8.8498**	**8.8498**	**8.8498**	**8.8498**	**8.8498**	**8.8498**	**8.8498**	**8.8498**	**8.8498**	**8.8498**	**8.8498**	**8.8498**
Net Throughput (gal/mo):	4,304,917	4,304,917	4,304,917	4,304,917	4,304,917	4,304,917	4,304,917	4,304,917	4,304,917	4,304,917	4,304,917	4,304,917
Shell Clinage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	9	9	9	9	9	9	9	9	9	9	9	9
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	**267.3078**	**277.2798**	**311.9026**	**310.7772**	**214.8427**	**237.4553**	**253.0599**	**247.9746**	**287.2517**	**323.2031**	**325.2262**	**283.1335**
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	504.27	504.27	504.27	504.27	504.27	504.27	504.27	504.27	504.27	504.27	504.27	504.27
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	**148.4441**	**153.9818**	**173.2089**	**172.5839**	**119.3088**	**131.8833**	**140.5318**	**137.7077**	**159.5195**	**179.4844**	**180.6079**	**157.2326**
Deck Seam Length (ft):	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Vapor Space Volume (cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Shell Height (ft)	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Density												
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7666	5.9344	5.3222
Daily Avg. Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6766	502.6894	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	888.0387	1221.4895	1492.4381	1767.1939	1931.5398	1909.9654	1698.9809	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1059	510.9159	515.1436	517.8206	516.9653	512.9016	507.6786	502.6394	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Net Throughput (gal/mo):	4,304,917,004	4,304,917,004	4,304,917,004	4,304,917,004	4,304,917,004	4,304,917,004	4,304,917,004	4,304,917,004	4,304,917,004	4,304,917,004	4,304,917,004	4,304,917,00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	541.2212	561.0814	630.0364	627.7949	436.7314	481.8288	512.8450	502.7170	580.9416	652.5424	656.5717	572.7398

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 28
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	1,456.9139	106.1975	3,339.4454	1,854.4945	6,757.0514

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 30
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	30	Internal Shell Condition:	Light Rust	Construction:	
Configuration	IFR	Shell Color/Shade:	Grey/Light	Primary Seal:	Vapor-mounted
City	South Portland	Shell/Paint Condition:	/Good	Secondary Seal:	Rim-mounted
State	ME				
Type of Tank	Internal Floating Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:	Good	Vacuum Settings (psia):	-0.03
		Roof Color/Shade:	Grey/Light	Pressure Settings (psia):	0.03
Tank Dimensions		Type:			
Shell Height/Length (ft):	45	Fitting Category:		**Tank Options**	
Diameter (ft):	125			Is Tank Heated?	No
Volume (gallons):	4132800	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	14	Deck Fitting Category:		Self Supp. Roof?	No
Eff. Col. Diam (ft):	1	Deck Type:	Bolted		
		Construction:	Sheet		
		Deck Seam:	5 ft wide (Length: 1571 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)
Access Hatch (24-in. Diam.) - Bolted Cover, Gasketed	2	1.6	0	0	3.2000
Automatic Gauge Float Well - Bolted Cover, Gasketed	1	2.8	0	0	2.8000
Column Well (24-in. Diam.) - Built-Up Col.-Sliding Cover, Gask.	14	33	0	0	462.0000
Ladder Well (36-in. Diam.) - Sliding Cover, Gasketed	1	56	0	0	56.0000
Roof Leg or Hanger Well - Adjustable	32	7.9	0	0	252.8000
Sample Pipe or Well (24-in. Diam.) - Slotted Pipe-Sliding Cover, Gask.	1	43	0	0	43.0000
Sample Pipe or Well (24-in. Diam.) - Slit Fabric Seal 10% Open	1	12	0	0	12.0000
Stub Drain (1-in. Diameter) - None	27	1.2	0	0	32.4000
Vacuum Breaker (10-in. Diam.) - Weighted Mech. Actuation, Gask.	2	6.2	1.2	0.94	12.4000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6565 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 30
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	38.39	32.73	44.05	47.62	5.39519	4.81418	6.03088	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	40.71	33.82	47.59	47.62	5.64889	4.92234	6.45851	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	46.38	38.72	54.03	47.62	6.30915	5.43056	7.29719	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	52.04	43.12	60.96	47.62	6.23567	5.24063	7.37557	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	57.66	47.41	67.9	47.62	4.40248	3.57732	5.37449	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	62.36	51.35	73.37	47.62	4.82963	3.87841	5.9599	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	64.98	54.07	75.89	47.62	5.08094	4.09744	6.24554	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	63.5	53.43	73.58	47.62	4.93816	4.04502	5.98321	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	58.4	49.65	67.15	47.62	5.59382	4.71302	6.60156	65			92	RVP:11 A:11.695 B:5166.9
Gasoline	Good	Oct	51.96	44.79	59.14	47.62	6.22613	5.41565	7.13033	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	46.13	40.98	51.28	47.62	6.27978	5.67937	6.929	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	40.35	35.42	45.27	47.62	5.6089	5.08423	6.17568	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 30
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	**157.0669**	**166.4738**	**192.1678**	**195.0359**	**136.3989**	**152.5352**	**162.3428**	**156.7411**	**177.6677**	**194.6429**	**190.9851**	**164.9746**
Seal Factor A (lb-mole/ft-yr):	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Seal Factor B (lb-mole/ft-yr (mph^n):	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent:	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Value of Vapor Pressure Function:	0.1139	0.1208	0.1394	0.1373	0.0888	0.0993	0.1057	0.1021	0.1193	0.137	0.1386	0.1197
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	5.3952	5.6489	6.3092	6.2357	4.4025	4.8296	5.0809	4.9382	5.5938	6.2261	6.2798	5.6089
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	**12.633**	**12.633**	**12.633**	**12.633**	**12.633**	**12.633**	**12.633**	**12.633**	**12.633**	**12.633**	**12.633**	**12.633**
Net Throughput (gal/mo):	7,529,588	7,529,588	7,529,588	7,529,588	7,529,588	7,529,588	7,529,588	7,529,588	7,529,588	7,529,588	7,529,588	7,529,588
Shell Clinage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	14	14	14	14	14	14	14	14	14	14	14	14
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	**500.6723**	**530.658**	**612.561**	**621.7037**	**434.79**	**486.2268**	**517.4897**	**499.6335**	**566.3401**	**620.4509**	**608.791**	**525.8791**
Value of Vapor Pressure Function:	0.1139	0.1208	0.1394	0.1373	0.0888	0.0993	0.1057	0.1021	0.1193	0.137	0.1386	0.1197
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr):	876.6	876.6	876.6	876.6	876.6	876.6	876.6	876.6	876.6	876.6	876.6	876.6
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	**159.9434**	**169.5226**	**195.6871**	**198.6078**	**138.8969**	**155.3287**	**165.3159**	**159.6116**	**180.9215**	**198.2076**	**194.4827**	**167.9959**
Deck Seam Length (ft):	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.1280	0.1280	0.1280	0.1280	0.1280	0.1280	0.1280	0.1280	0.1280	0.1280	0.1280	0.1280
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Shell Height (ft):	45	45	45	45	45	45	45	45	45	45	45	45
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
Vapor Density												
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	5.3952	5.6489	6.3092	6.2357	4.4025	4.8296	5.0809	4.9382	5.5938	6.2261	6.2798	5.6089
Daily Avg. Liquid Surface Temperature (deg R):	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6466	523.1746	518.0713	511.6316	505.8037	500.0171
Ideal Gas Constant R (psia cuft/(lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R):	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692	507.2692
Tank Paint Solar Absorbance (Shell):	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Tank Paint Solar Absorbance (Roof):	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Daily Total Solar Insulation Factor (Btu/sqft/day):	597.1021	688.0387	1221.4895	1492.4331	1767.1939	1931.5353	1909.9654	1668.9509	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0

Daily Vapor Temperature Range (def R):	18.9	19.6	18.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.3952	5.6489	6.3092	6.2357	4.4025	4.8296	5.0809	4.9382	5.5938	6.2261	6.2798	5.6089
Daily Avg Liquid Surface Temperature (deg R):	498.058	500.3771	506.0456	511.7115	517.3276	522.0327	524.6466	523.1746	518.0713	511.6316	505.8037	500.0171
Daily Ambient Temperature Range (deg R):	18.9	19.6	18.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.3952	5.6489	6.3092	6.2357	4.4025	4.8296	5.0809	4.9382	5.5938	6.2261	6.2798	5.6089
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.3952	5.6489	6.3092	6.2357	4.4025	4.8296	5.0809	4.9382	5.5938	6.2261	6.2798	5.6089
Net Throughput (gal/mo):	7,529,588,007	529,588,007	529,588,007	529,588,007	529,588,007	529,588,007	529,588,007	529,588,007	529,588,007	529,588,007	529,588,007	529,588.00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	830.3157	879.2875	1,013.0490	1,027.9804	722.7188	806.7237	857.7814	828.5192	937.5624	1,025.9345	1,006.8918	871.4827

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 30
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	2,047.0328	151.5964	6,525.1961	2,084.5218	10,808.3472

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 37
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	37	Internal Shell Condition:	Light Rust	Construction:	
Configuration	IFR	Shell Color/Shade:	White/White	Primary Seal:	Vapor-mounted
City	South Portland	Shell/Paint Condition:	/Good	Secondary Seal:	Rim-mounted
State	ME				
Type of Tank:	Internal Floating Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description:		Roof Condition:	Good	Vacuum Settings (psia):	-0.03
		Roof Color/Shade:	White/White	Pressure Settings (psia):	0.03
Tank Dimensions		Type:			
Shell Height/Length (ft):	47.5	Fitting Category:		**Tank Options**	
Diameter (ft):	100			Is Tank Heated?	No
Volume (gallons):	2768800	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	13	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	1	Deck Type:	Bolted		
		Construction:	Sheet		
		Deck Seam:	5 ft wide (Length: 1571 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)
Access Hatch (24-In. Diam.) - Bolted Cover, Gasketed	2	1.6	0	0	3.2000
Automatic Gauge Float Well - Bolted Cover, Gasketed	1	2.8	0	0	2.8000
Vacuum Breaker (10-In. Diam.) - Weighted Mech. Actuation, Gask.	4	6.2	1.2	0.94	24.8000
Stub Drain (1-In. Diameter) - None	39	1.2	0	0	46.8000
Ladder Well (36-In. Diam.) - Sliding Cover, Gasketed	1	56	0	0	56.0000
Column Well (24-In. Diam.) - Built-Up Col.-Sliding Cover, Gask.	13	33	0	0	429.0000
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w. Pole Sleeve,Wper	1	8.3	4.4	1.5	8.3000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6535 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 37
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.08177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.38	51.49	45.4	5.59415	5.06218	6.16982	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33801	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	58.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.89721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.96	58.5	45.4	5.05884	4.55645	5.60469	65			92	RVP:11 A:11.695 B:5166.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 37
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	116.6195	120.97	136.0751	135.5841	93.7303	103.6092	110.4035	108.1849	125.3205	141.0052	141.8878	123.5239
Seal Factor A (lb-mole/ft-yr):	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Seal Factor B (lb-mole/ft-yr (mpg^n):	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Tank Diameter (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	10.8406	10.8406	10.8406	10.8406	10.8406	10.8406	10.8406	10.8406	10.8406	10.8406	10.8406	10.8406
Net Throughput (gal/mo):	5,086,655	5,086,655	5,086,655	5,086,655	5,086,655	5,086,655	5,086,655	5,086,655	5,086,655	5,086,655	5,086,655	5,086,655
Shell Clinage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	13	13	13	13	13	13	13	13	13	13	13	13
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	302.6276	313.9172	353.1148	351.8406	243.2302	268.8658	286.4971	280.7398	325.2068	365.9084	368.1989	320.5444
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	570.9	570.9	570.9	570.9	570.9	570.9	570.9	570.9	570.9	570.9	570.9	570.9
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	143.4441	153.9818	173.2089	172.5539	119.3086	131.8833	140.5318	137.7077	159.5195	179.4844	180.6079	157.2326
Deck Seam Length (ft):	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Space Outage (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Tank Shell Height (ft)	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
Average Liquid Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft)	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Density												
Vapor Density (lb/cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Daily Avg. Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	506.1059	510.9169	515.1436	517.8206	518.9653	512.9016	507.6768	502.6894	497.3745
Ideal Gas Constant R (psia cuft/lb-mol-deg R)	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	688.0387	1221.4695	1492.4381	1767.1939	1931.5393	1909.9654	1698.9609	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0

Daily Vapor Temperature Range (deg R):	18.9	19.6	18.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia)	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	508.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6786	502.8594	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	18.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Net Throughput (gal/mo):	5,086,655,005,086,655,005,086,655,005,086,655,005,086,655,005,086,655,005,086,655,005,086,655,005,086,655,005,086,655,005,086,655,005,086,655,00											
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	578.5318	599.7096	673.2393	670.8492	467.1097	515.1988	548.2730	537.4731	620.8874	697.2385	701.5352	612.1414

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 37
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	1,456.9139	130.0869	3,780.6917	1,854.4945	7,222.1871

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 38
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	38	Internal Shell Condition:	Light Rust	Construction:	
Configuration	IFR	Shell Color/Shade:	White/White	Primary Seal:	Vapor-mounted
City	South Portland	Shell/Paint Condition:	/Good	Secondary Seal:	Rim-mounted
State	ME				
Type of Tank	Internal Floating Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:	Good	Vacuum Settings (psia):	-0.03
		Roof Color/Shade:	White/White	Pressure Settings (psia):	0.03
Tank Dimensions		Type:			
Shell Height/Length (ft):	47	Fitting Category:		**Tank Options**	
Diameter (ft):	100			Is Tank Heated?	No
Volume (gallons):	2617902	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	13	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	1	Deck Type:	Bolted		
		Construction:	Sheet		
		Deck Seam:	5 ft wide (Length: 1571 ft)		

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w. Pole Sleeve,Wiper	1	8.3	4.4	1.6	8.3000
Access Hatch (24-in. Diam.) - Bolted Cover, Gasketed	2	1.6	0	0	3.2000
Automatic Gauge Float Well - Bolted Cover, Gasketed	1	2.8	0	0	2.8000
Roof Leg or Hanger Well - Adjustable	80	7.9	0	0	632.0000
Vacuum Breaker (10-in. Diam.) - Weighted Mech. Actuation, Gask.	2	6.2	1.2	0.94	12.4000
Stub Drain (1-in. Diameter) - None	80	1.2	0	0	96.0000
Column Well (24-in. Diam.) - Built-Up Col.-Sliding Cover, Gask.	13	33	0	0	429.0000
Ladder Well (36-in. Diam.) - Sliding Cover, Gasketed	1	56	0	0	56.0000
Sample Pipe or Well (24-in. Diam.) - Slotted Pipe-Sliding Cover, Gask.	1	43	0	0	43.0000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6555 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 38
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.03177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.38	51.49	45.4	5.59415	5.06218	6.16982	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33801	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	58.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.88721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.96	58.5	45.4	5.05884	4.55645	5.60469	65			92	RVP:11 A:11.695 B:5168.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 38
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	116.6195	120.97	135.0751	135.5841	93.7303	103.6092	110.4035	108.1849	125.3205	141.0062	141.8678	123.5239
Seal Factor A (lb-mole/ft-yr):	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent:	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265
Net Throughput (gal/mo):	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	13	13	13	13	13	13	13	13	13	13	13	13
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	679.9448	705.3102	793.3795	790.5167	546.4904	604.0885	643.7027	630.7672	730.6757	822.1242	827.2704	720.2003
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr):	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Losses[1] - Floating Roof Tanks (lb):	148.4441	153.9818	173.2089	172.5839	119.3086	131.8833	140.5318	137.7077	159.5195	179.4544	180.6079	157.2326
Deck Seam Length (ft):	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Shell Height (ft):	47	47	47	47	47	47	47	47	47	47	47	47
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage:	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Density:												
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Daily Avg. Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	518.9653	512.9016	507.6766	502.6324	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R):	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day):	597.1021	688.0387	1221.4595	1492.4331	1767.1939	1931.5393	1909.9654	1693.9309	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor:												
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0

Daily Vapor Temperature Range (def R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5352	501.232	506.1059	510.9189	515.1436	517.8206	516.9653	512.9018	507.6786	502.6894	497.3745
Daily Ambient Temperature Range (deg R)	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Net Throughput (gal/mo):	5,033,111.005,033,111.005,033,111.005,033,111.005,033,111.005,033,111.005,033,111.005,033,111.005,033,111.005,033,111.005,033,111.005,033,111.00											
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	955.7349	990.9884	1,113.3899	1,109.4111	770.2558	850.3075	905.3645	887.3863	1,026.2422	1,153.3402	1,160.4926	1,011.6832

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 38
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	1,456.9139	128.7176	8,494.4706	1,854.4945	11,934.5966

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 39
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	39	Internal Shell Condition:	Light Rust	Construction:	
Configuration	2011-FRT	Shell Color/Shade:	White/White	Primary Seal:	Mechanical Shoe
City	South Portland	Shell/Paint Condition:	/Good	Secondary Seal:	Rim-mounted
State	ME				
Type of Tank	Internal Floating Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:	Good	Vacuum Settings (psia):	0
		Roof Color/Shade:	White/White	Pressure Settings (psia):	0
Tank Dimensions		Type:			
Shell Height/Length (ft):	36	Fitting Category:	Typical	**Tank Options**	
Diameter (ft):	40			Is Tank Heated?	No
Volume (gallons):	296478	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	1	Deck Fitting Category:	Typical	Self Supp. Roof?:	No
Eff. Col. Diam (ft):	1	Deck Type:	Bolted		
		Construction:	Sheet		
		Deck Seam:	5 ft Wide (Length: 251.33 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	**Quantity**	**KFa (lb-mole/yr)**	**KFb (lb-mole/(yr mph^n))**	**m**	**Fitting Loss Factor (lb/lb-mole)**
Access Hatch (24-In. Diam.) - Unbolted Cover, Ungasketed	1	36	5.9	1.2	36.0000
Column Well (24-In. Diam.) - Built-Up Col.-Sliding Cover, Gask.	1	33	0	0	33.0000
Roof Leg or Hanger Well - Adjustable	12	7.9	0	0	94.8000
Vacuum Breaker (10-In. Diam.) - Weighted Mech. Actuation, Gask.	1	6.2	1.2	0.94	6.2000
Automatic Gauge Float Well - Unbolted Cover, Gasketed	1	4.3	17	0.38	4.3000
Stub Drain (1-In. Diameter) - None	9	1.2	0	0	10.8000
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w. Pole Sleeve,Wiper	1	8.3	4.4	1.6	8.3000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6685 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 39
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.03177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.38	51.49	45.4	5.59415	5.06218	6.16982	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33801	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	58.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.88721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.96	58.5	45.4	5.05884	4.55645	5.60469	65			92	RVP:11 A:11.695 B:5166.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 39
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	12.7221	13.1967	14.8446	14.791	10.2251	11.3028	12.044	11.802	13.6713	15.3824	15.4787	13.4753
Seal Factor A (lb-mole/ft-yr):	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Seal Factor B (lb-mole/ft-yr (mpg^n):	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	1	1	1	1	1	1	1	1	1	1	1	1
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surage Temperature (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Tank Diameter (ft)	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Molecular Weight (lb/lb-mole)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981
Net Throughput (gal/mo):	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824
Shell Clinage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	1	1	1	1	1	1	1	1	1	1	1	1
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	102.5192	106.3436	119.6224	119.1907	82.3975	91.0819	97.0547	95.1044	110.1681	123.9564	124.7323	108.5887
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	193.4	193.4	193.4	193.4	193.4	193.4	193.4	193.4	193.4	193.4	193.4	193.4
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	23.7482	24.6341	27.7101	27.6101	19.0871	21.0988	22.4824	22.0306	25.5201	28.7141	28.8938	25.1542
Deck Seam Length (ft):	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Shell Height (ft):	36	36	36	36	36	36	36	36	36	36	36	36
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	20	20	20	20	20	20	20	20	20	20	20	20
Vapor Density												
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Daily Avg. Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	518.9653	512.9016	507.6786	502.6894	497.3745
Ideal Gas Constant R (psia cuft/lb-mol-deg R):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R):	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	868.0387	1221.4395	1492.4381	1767.1939	1931.5393	1909.9654	1698.9809	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7666	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1059	510.9159	515.1436	517.8206	516.9653	512.9016	507.6766	502.8894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7666	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7666	5.9344	5.3222
Net Throughput (gal/mo):	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	141.9706	147.1555	165.1581	164.5729	114.6907	126.4645	134.5622	131.9180	152.3406	171.0339	172.0358	150.1993

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 39
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	158.9361	35.7724	1,260.7598	296.6837	1,772.1520

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 40
South Portland Terminal (SPTPM)

Identification		**Shell Characteristics**		**Tank Construction and Rim-Seal System**	
Tank Name	40	Internal Shell Condition:	Light Rust	Construction:	
Configuration	2011-FRT	Shell Color/Shade:	White/White	Primary Seal	Mechanical Shoe
City	South Portland	Shell/Paint Condition:	/Good	Secondary Seal	Rim-mounted
State	ME				
Type of Tank	Internal Floating Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:	Good	Vacuum Settings (psia):	0
		Roof Color/Shade:	White/White	Pressure Settings (psia):	0
Tank Dimensions		Type:			
Shell Height/Length (ft):	36	Fitting Category:	Typical	**Tank Options**	
Diameter (ft):	40			Is Tank Heated?	No
Volume (gallons):	238914	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	1	Deck Fitting Category:	Typical	Self Supp. Roof?.	No
Eff. Col. Diam (ft):	1	Deck Type:	Bolted		
		Construction:	Sheet		
		Deck Seam:	5 ft Wide (Length: 251.33 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	**Quantity**	**KFa (lb-mole/yr)**	**KFb (lb-mole/(yr mph^n))**	**m**	**Fitting Loss Factor (lb/lb-mole)**
Access Hatch (24-In. Diam.) - Unbolted Cover, Gasketed	1	31	5.2	1.3	31.0000
Automatic Gauge Float Well - Unbolted Cover, Gasketed	1	4.3	17	0.38	4.3000
Column Well (24-In. Diam.) - Built-Up Col.-Sliding Cover, Gask.	8	33	0	0	264.0000
Ladder Well (36-In. Diam.) - Sliding Cover, Gasketed	1	56	0	0	56.0000
Roof Leg or Hanger Well - Adjustable	12	7.9	0	0	94.8000
Stub Drain (1-In. Diameter) - None	9	1.2	0	0	10.8000
Vacuum Breaker (10-In. Diam.) - Weighted Mech. Actuation, Gask.	1	6.2	1.2	0.94	6.2000
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w. Pole Sleeve	1	11	46	1.4	11.0000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6655 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 40
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.08177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.38	51.49	45.4	5.59415	5.06218	6.16992	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33801	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	58.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.88721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.96	58.5	45.4	5.05884	4.55645	5.60459	65			92	RVP:11 A:11.695 B:5166.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 40
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	12.7221	13.1967	14.6445	14.791	10.2251	11.3028	12.044	11.802	13.6713	15.3824	15.4787	13.4753
Seal Factor A (lb-mole/ft-yr):	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Seal Factor B (lb-mole/ft-yr (mpg^n):	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent:	1	1	1	1	1	1	1	1	1	1	1	1
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	5.0818	5.2339	5.7443	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7656	5.9344	5.3222
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981
Net Throughput (gal/mo):	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	1	1	1	1	1	1	1	1	1	1	1	1
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	253.4354	262.6893	295.7159	294.6458	203.693	225.1616	239.9269	235.1055	272.3443	306.4299	308.348	268.4398
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	478.1	478.1	478.1	478.1	478.1	478.1	478.1	478.1	478.1	478.1	478.1	478.1
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	23.7482	24.6341	27.7101	27.6101	19.0871	21.0988	22.4824	22.0306	25.5201	28.7141	28.8938	25.1542
Deck Seam Length (ft):	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Shell Height (ft):	36	36	36	36	36	36	36	36	36	36	36	36
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	20	20	20	20	20	20	20	20	20	20	20	20
Vapor Density												
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	5.0818	5.2339	5.7443	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7656	5.9344	5.3222
Daily Avg. Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	500.1059	510.9169	515.1436	517.8206	516.9653	512.9016	507.6766	502.8894	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R):	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day):	597.1021	838.0337	1221.4895	1492.4331	1767.1939	1931.5393	1909.9654	1668.9809	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0

Daily Vapor Temperature Range (def R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6766	502.8894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Net Throughput (gal/mo):	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	292.8868	303.7017	341.2516	340.0310	235.9863	260.5442	277.4344	271.9191	314.5167	353.5074	355.7015	310.0504

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 40
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	158.9361	35.7724	3,166.1389	296.6837	3,657.5311

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 41
South Portland Terminal (SPTPM)

Identification

Tank Name	41
Configuration	2011-IFRT
City	South Portland
State	ME
Type of Tank	Internal Floating Roof Tank
Description	

Tank Dimensions

Shell Height/Length (ft):	36
Diameter (ft):	40
Volume (gallons):	295260
No. of Columns:	1
Eff. Col. Diam (ft):	1

Shell Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell/Paint Condition:	/Good

Roof Characteristics

Roof Condition:	Good
Roof Color/Shade:	White/White
Type:	
Fitting Category:	Typical

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Bolted
Construction:	Sheet
Deck Seam:	5 ft wide (Length: 251.33 ft)

Tank Construction and Rim-Seal System

Construction:	
Primary Seal:	Mechanical Shoe
Secondary Seal:	Rim-mounted

Breather Settings

Vacuum Settings (psia):	0
Pressure Settings (psia):	0

Tank Options

Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)
Column Well (24-in. Diam.) - Built-Up Col.-Sliding Cover, Gask.	1	33	0	0	33.0000
Automatic Gauge Float Well - Unbolted Cover, Gasketed	1	4.3	17	0.38	4.3000
Roof Leg or Hanger Well - Adjustable	12	7.9	0	0	94.8000
Access Hatch (24-in. Diam.) - Unbolted Cover, Gasketed	1	31	5.2	1.3	31.0000
Vacuum Breaker (10-in. Diam.) - Weighted Mech. Actuation, Gask.	1	6.2	1.2	0.94	6.2000
Ladder Well (36-in. Diam.) - Sliding Cover, Gasketed	1	56	0	0	56.0000
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w. Pole Sleeve	1	11	46	1.4	11.0000
Stub Drain (1-in. Diameter) - None	9	1.2	0	0	10.8000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6855 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 41
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.08177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.38	51.49	45.4	5.59415	5.06218	6.16982	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33801	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	59.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.88721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.96	58.5	45.4	5.05834	4.55645	5.60469	65			92	RVP:11 A:11.695 B:5166.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 41
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	12.7221	13.1967	14.8446	14.791	10.2251	11.3028	12.044	11.802	13.6713	15.3824	15.4787	13.4753
Seal Factor A (lb-mole/ft-yr):	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Seal Factor B (lb-mole/ft-yr (mpg^n):	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	1	1	1	1	1	1	1	1	1	1	1	1
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Tank Diameter (ft)	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Molecular Weight (lb/lb-mole)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981
Net Throughput (gal/mo):	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	1	1	1	1	1	1	1	1	1	1	1	1
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	130.9849	135.8713	152.837	152.2856	105.2762	116.3719	124.0032	121.5113	140.7577	158.3744	159.3658	138.7398
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	23.7482	24.6341	27.7101	27.6101	19.0871	21.0988	22.4824	22.0306	25.5201	28.7141	28.8938	25.1542
Deck Seam Length (ft):	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft)	40	40	40	40	40	40	40	40	40	40	40	40
Tank Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Outage (ft)	36	36	36	36	36	36	36	36	36	36	36	36
Tank Shell Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft)	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Outage (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft)	20	20	20	20	20	20	20	20	20	20	20	20
Shell Radius (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Molecular Weight (lb/lb-mole)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	495.0694	498.5332	501.232	508.1059	510.9189	515.1438	517.8208	516.9653	512.9316	507.6766	502.8694	497.3745
Daily Avg. Liquid Surface Temperature (deg R)	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Liquid Bulk Temperature (deg R)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Shell)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof)	597.1021	868.0387	1221.4595	1492.4331	1767.1939	1931.5393	1909.9654	1668.9809	1343.3212	927.0629	571.7205	478.7604
Daily Total Solar Insulation Factor (Btu/sqft/day)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:												

Daily Vapor Temperature Range (def R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7656	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R)	495.0694	496.5332	501.232	506.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6786	502.6894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7656	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7656	5.9344	5.3222
Net Throughput (gal/mo):	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	170.4363	178.6832	198.3727	197.6677	137.5695	151.7546	161.5107	158.3250	182.9302	205.4519	206.7193	180.3503

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 41
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	158.9361	35.7724	1,636.3793	296.6837	2,127.7714

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 42
South Portland Terminal (SPTPM)

Identification	
Tank Name	42
Configuration	2011-IFRT
City	South Portland
State	ME
Type of Tank	Internal Floating Roof Tank
Description	

Tank Dimensions	
Shell Height/Length (ft):	36
Diameter (ft):	40
Volume (gallons):	295680
No. of Columns:	1
Eff. Col. Diam (ft):	1

Shell Characteristics	
Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell/Paint Condition:	/Good

Roof Characteristics	
Roof Condition:	Good
Roof Color/Shade:	White/White
Type:	
Fitting Category:	Typical

Deck Characteristics	
Deck Fitting Category:	Typical
Deck Type:	Bolted
Construction:	Sheet
Deck Seam:	5 ft Wide (Length: 251.33 ft)

Tank Construction and Rim-Seal System	
Construction:	
Primary Seal:	Mechanical Shoe
Secondary Seal:	Rim-mounted

Breather Settings	
Vacuum Settings (psia):	0
Pressure Settings (psia):	0

Tank Options	
Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)
Column Well (24-in. Diam.) - Built-Up Col.-Sliding Cover, Gask.	1	33	0	0	33.0000
Automatic Gauge Float Well - Unbolted Cover, Gasketed	1	4.3	17	0.38	4.3000
Roof Leg or Hanger Well - Adjustable	12	7.9	0	0	94.8000
Access Hatch (24-in. Diam.) - Unbolted Cover, Gasketed	1	31	5.2	1.3	31.0000
Vacuum Breaker (10-in. Diam.) - Weighted Mech. Actuation, Gask.	1	6.2	1.2	0.94	6.2000
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w. Pole Sleeve	1	11	46	1.4	11.0000
Stub Drain (1-in. Diameter) - None	9	1.2	0	0	10.8000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6685 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 42
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.03177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.38	51.49	45.4	5.59415	5.06218	6.16982	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33801	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	58.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.88721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.96	58.5	45.4	5.05834	4.55645	5.60469	65			92	RVP:11 A:11.695 B:5166.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 42
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	12.7221	13.1967	14.8446	14.791	10.2251	11.3028	12.044	11.802	13.6713	15.3824	15.4787	13.4753
Seal Factor A (lb-mole/ft-yr):	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent:	1	1	1	1	1	1	1	1	1	1	1	1
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981	2.981
Net Throughput (gal/mo):	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824	616,824
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	1	1	1	1	1	1	1	1	1	1	1	1
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	101.3	105.079	118.1998	117.7732	81.4176	89.9937	95.9005	93.9733	108.858	122.4822	123.2459	107.2973
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr):	191.1	191.1	191.1	191.1	191.1	191.1	191.1	191.1	191.1	191.1	191.1	191.1
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	23.7432	24.6341	27.7101	27.6101	19.0871	21.0988	22.4824	22.0306	25.5201	28.7141	28.8938	25.1542
Deck Seam Length (ft):	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33	251.33
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft):	40	40	40	40	40	40	40	40	40	40	40	40
Tank Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Outage (ft):	36	36	36	36	36	36	36	36	36	36	36	36
Tank Shell Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	20	20	20	20	20	20	20	20	20	20	20	20
Shell Radius (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Density (lb/cu ft):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Vapor Molecular Weight (lb/lb-mole):	495.0694	496.5382	501.232	500.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6786	502.8894	497.3745
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Daily Avg. Liquid Surface Temperature (deg R):	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Ideal Gas Constant R (psia cuft/(lb-mol-deg R)):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Liquid Bulk Temperature (deg R):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Shell):	597.1021	883.0387	1221.4595	1492.4331	1767.1939	1931.5393	1909.9654	1698.9899	1343.3212	927.0629	571.7205	478.7604
Tank Paint Solar Absorbance (Roof):	0	0	0	0	0	0	0	0	0	0	0	0
Daily Total Solar Insulation Factor (Btu/sqft/day):												
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:												

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6766	502.6894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Net Throughput (gal/mo):	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00	616,824.00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	40	40	40	40	40	40	40	40	40	40	40	40
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	140.7513	145.8909	163.7355	163.1554	113.7108	125.3814	133.4080	130.7870	151.0304	169.5597	170.6024	148.9079

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 42
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	158.9361	35.7724	1,265.5284	296.6837	1,756.9206

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 43
South Portland Terminal (SPTPM)

Identification	
Tank Name	43
Configuration	IFR
City	South Portland
State	ME
Type of Tank	Internal Floating Roof Tank
Description	

Tank Dimensions	
Shell Height/Length (ft):	47
Diameter (ft):	100
Volume (gallons)	2772000
No. of Columns:	13
Eff. Col. Diam (ft):	1

Shell Characteristics	
Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell/Paint Condition:	/Good

Roof Characteristics	
Roof Condition:	Good
Roof Color/Shade:	White/White
Type:	
Fitting Category:	

Deck Characteristics	
Deck Fitting Category:	
Deck Type:	Bolted
Construction:	Sheet
Deck Seam:	5 ft wide (Length: 1571 ft)

Tank Construction and Rim-Seal System	
Construction:	
Primary Seal:	Vapor-mounted
Secondary Seal:	Rim-mounted

Breather Settings	
Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options	
Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)
Access Hatch (24-in. Diam.) - Bolted Cover, Gasketed	1	1.6	0	0	1.6000
Automatic Gauge Float Well - Bolted Cover, Gasketed	1	2.8	0	0	2.8000
Column Well (24-in. Diam.) - Built-Up Col.-Sliding Cover, Gask.	13	33	0	0	429.0000
Ladder Well (36-in. Diam.) - Sliding Cover, Gasketed	1	56	0	0	56.0000
Roof Leg or Hanger Well - Adjustable	57	7.9	0	0	450.3000
Sample Pipe or Well (24-in. Diam.) - Slotted Pipe-Sliding Cover, Gask.	1	43	0	0	43.0000
Stub Drain (1-in. Diameter) - None	22	1.2	0	0	26.4000
Vacuum Breaker (10-in. Diam.) - Weighted Mech. Actuation, Gask.	1	6.2	1.2	0.94	6.2000

1. Meteorlogical Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6685 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 43
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.03177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.39	51.49	45.4	5.59415	5.06218	6.16982	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33601	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	58.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.83721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.98	58.5	45.4	5.05884	4.55645	5.60469	65			92	RVP:11 A:11.695 B:5166.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 43
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	116.6195	120.97	136.0751	135.5841	93.7303	103.6092	110.4035	108.1849	125.3205	141.0052	141.8878	123.5239
Seal Factor A (lb-mole/ft-yr):	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent:	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265	10.7265
Net Throughput (gal/mo):	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111	5,033,111
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	13	13	13	13	13	13	13	13	13	13	13	13
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	538.1991	558.2766	627.9864	625.7204	432.5655	478.1563	509.5122	499.2733	578.3543	650.7388	654.8122	570.0626
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr):	1015.3	1015.3	1015.3	1015.3	1015.3	1015.3	1015.3	1015.3	1015.3	1015.3	1015.3	1015.3
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	148.4441	153.9818	173.2089	172.5839	119.3036	131.8833	140.5318	137.7077	159.5195	179.4844	180.6079	157.2326
Deck Seam Length (ft):	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft):	100	100	100	100	100	100	100	100	100	100	100	100
Tank Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Outage (ft):	47	47	47	47	47	47	47	47	47	47	47	47
Tank Shell Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	50	50	50	50	50	50	50	50	50	50	50	50
Shell Radius (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Density (lb/cu ft):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Vapor Molecular Weight (lb/lb-mole):	495.0694	496.5382	501.232	508.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6766	502.8894	497.3745
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Daily Avg. Liquid Surface Temperature (deg R):	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Ideal Gas Constant R (psia cuft/lb-mol-deg R):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Liquid Bulk Temperature (deg R):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Shell):	597.1021	888.0387	1221.4895	1492.4381	1767.1939	1931.5358	1909.9654	1698.9509	1343.3212	927.0629	571.7205	478.7604
Tank Paint Solar Absorbance (Roof):	0	0	0	0	0	0	0	0	0	0	0	0
Daily Total Solar Insulation Factor (Btu/sqft/day):												
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:												

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	508.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6768	502.8394	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Net Throughput (gal/mo):	5,033,111.005	5,033,111.005	5,033,111.005	5,033,111.005	5,033,111.005	5,033,111.005	5,033,111.005	5,033,111.005	5,033,111.005	5,033,111.005	5,033,111.005	5,033,111.00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	813.9891	843.9549	947.9969	944.6149	656.3309	724.3752	771.1740	755.8925	873.9208	981.9549	988.0344	861.5455

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 43
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	1,456.9139	128.7176	6,723.6579	1,854.4945	10,163.7840

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 44
South Portland Terminal (SPTPM)

Identification	
Tank Name	44
Configuration	IFR
City	South Portland
State	ME
Type of Tank	Internal Floating Roof Tank
Description	

Tank Dimensions	
Shell Height/Length (ft):	47
Diameter (ft):	125
Volume (gallons):	4355900
No. of Columns:	16
Eff. Col. Diam (ft):	1

Shell Characteristics	
Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell/Paint Condition:	/Good

Roof Characteristics	
Roof Condition:	Good
Roof Color/Shade:	White/White
Type:	
Fitting Category:	

Deck Characteristics	
Deck Fitting Category:	
Deck Type:	Bolted
Construction:	Sheet
Deck Seam:	5 ft Wide (Length: 2454 ft)

Tank Construction and Rim-Seal System	
Construction:	Welded
Primary Seal:	Mechanical Shoe
Secondary Seal:	Rim-mounted

Breather Settings	
Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options	
Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

		Roof Fitting Loss Factors			
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)
Access Hatch (24-in. Diam.) - Bolted Cover, Gasketed	2	1.6	0	0	3.2000
Automatic Gauge Float Well - Bolted Cover, Gasketed	1	2.8	0	0	2.8000
Column Well (24-in. Diam.) - Built-Up Col.-Sliding Cover, Gask.	16	33	0	0	528.0000
Ladder Well (36-in. Diam.) - Sliding Cover, Gasketed	1	56	0	0	56.0000
Sample Pipe or Well (24-in. Diam.) - Slotted Pipe-Sliding Cover, Gask.	1	43	0	0	43.0000
Sample Pipe or Well (24-in. Diam.) - Slit Fabric Seal 10% Open	1	12	0	0	12.0000
Stub Drain (1-in. Diameter) - None	26	1.2	0	0	31.2000
Vacuum Breaker (10-in. Diam.) - Weighted Mech. Actuation, Gask.	1	6.2	1.2	0.94	6.2000
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w. Pole Sleeve,Wiper	1	8.3	4.4	1.6	8.3000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6555 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 44
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.03177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.38	51.49	45.4	5.59415	5.06218	6.16982	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33801	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	58.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.88721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.96	58.5	45.4	5.05884	4.55645	5.60469	65			92	RVP:11 A:11.695 B:5166.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 44
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	39.7567	41.2398	46.3892	46.2218	31.9535	35.3213	37.6376	36.6812	42.7229	48.0699	48.3708	42.1104
Seal Factor A (lb-mole/ft-yr):	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Seal Factor B (lb-mole/ft-yr (mpg^n):	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	1	1	1	1	1	1	1	1	1	1	1	1
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7666	5.9344	5.3222
Tank Diameter (ft)	125	125	125	125	125	125	125	125	125	125	125	125
Vapor Molecular Weight (lb/lb-mole)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	13.3844	13.3844	13.3844	13.3844	13.3844	13.3844	13.3844	13.3844	13.3844	13.3844	13.3844	13.3844
Net Throughput (gal/mo):	7,864,237	7,864,237	7,864,237	7,864,237	7,864,237	7,864,237	7,864,237	7,864,237	7,864,237	7,864,237	7,864,237	7,864,237
Shell Clinage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	16	16	16	16	16	16	16	16	16	16	16	16
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	366.1323	379.7909	427.2139	425.6723	294.2706	325.2657	346.6169	339.6514	393.4495	442.6921	445.4632	387.6088
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	690.7	690.7	690.7	690.7	690.7	690.7	690.7	690.7	690.7	690.7	690.7	690.7
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	231.8789	240.5292	270.5631	269.5868	186.3675	206.01	219.5194	215.1081	249.1795	280.3658	282.1208	245.6071
Deck Seam Length (ft):	2454	2454	2454	2454	2454	2454	2454	2454	2454	2454	2454	2454
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft)	125	125	125	125	125	125	125	125	125	125	125	125
Tank Diameter (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Outage (ft)	47	47	47	47	47	47	47	47	47	47	47	47
Tank Shell Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Average Liquid Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft)	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft)	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
Shell Radius (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Density (lb/cu ft)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7666	5.9344	5.3222
Vapor Molecular Weight (lb/lb-mole)	495.0694	498.5382	501.232	506.1059	510.9169	515.1436	517.8206	516.9653	512.9016	507.6786	502.6694	497.3745
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Daily Avg. Liquid Surface Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Liquid Bulk Temperature (deg R)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Shell)	597.1021	883.0387	1221.4595	1492.4381	1767.1939	1931.5368	1909.9654	1693.9309	1343.3212	927.0629	571.7205	478.7604
Tank Paint Solar Absorbance (Roof)												
Daily Total Solar Insulation Factor (Btu/sq*/day)												
Vapor Space Expansion Factor	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:												

Daily Vapor Temperature Range (def R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	508.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6766	502.8394	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0588	5.7686	5.9344	5.3222
Net Throughput (gal/mo):	7,864,237,007,864,237,007,864,237,007,864,237,007,864,237,007,864,237,007,864,237,007,864,237,007,864,237,007,864,237,007,864,237,007,864,237,00											
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	125	125	125	125	125	125	125	125	125	125	125	125
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	651.1522	674.9442	757.5506	754.6653	525.9760	580.0013	617.1592	605.0251	698.7362	784.5122	789.3392	688.9106

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 44
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	496.6752	160.6122	4,574.0476	2,896.8362	8,128.1712

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: A1
South Portland Terminal (SPTPM)

Identification

Tank Name	A1
Configuration	2012-HT
City	South Portland
State	ME
Type of Tank	Horizontal Tank
Description	

Tank Dimensions

Shell Height/Length (ft):	14
Diameter (ft):	10
Volume (gallons):	8022
No. of Columns:	0
Eff. Col. Diam (ft):	0

Shell Characteristics

Internal Shell Condition:	
Shell Color/Shade:	White/White
Shell/Paint Condition:	/Good

Roof Characteristics

Roof Condition:	
Roof Color/Shade:	
Type:	
Fitting Category:	

Deck Characteristics

Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System

Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings

Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options

Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?.	No

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6885 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: A1
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline Additive	Good	Jan	35.4	31.29	39.51	45.4	0.00577	0.00485	0.00685	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Feb	36.87	32.28	41.45	45.4	0.00614	0.00506	0.00742	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Mar	41.56	37.07	46.06	45.4	0.00745	0.00619	0.00895	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Apr	46.44	41.38	51.49	45.4	0.00909	0.0074	0.01111	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	May	51.25	45.58	56.92	45.4	0.01101	0.00878	0.01374	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Jun	55.47	49.47	61.48	45.4	0.01299	0.01026	0.01636	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Jul	58.15	52.19	64.11	45.4	0.01441	0.01142	0.01807	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Aug	57.3	51.62	62.97	45.4	0.01394	0.01117	0.01731	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Sep	53.23	47.96	58.5	45.4	0.0119	0.00966	0.0148	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Oct	48.01	43.23	52.78	45.4	0.00968	0.00798	0.01169	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Nov	43.22	39.55	46.89	45.4	0.00798	0.00686	0.00925	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Dec	37.7	34.02	41.39	45.4	0.00635	0.00544	0.0074	130			188	RVP:0 A:15.672 B:10310.88

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: A1
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mph)^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent:	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Vapor Pressure at Daily Average Liquid Surage Temperature (psia)	10	10	10	10	10	10	10	10	10	10	10	10
Tank Diameter (ft):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Molecular Weight (lb/lb-mole):	1	1	1	1	1	1	1	1	1	1	1	1
Product Factor:												
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	8,221	8,221	8,221	8,221	8,221	8,221	8,221	8,221	8,221	8,221	8,221	8,221
Shell Clingage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	10	10	10	10	10	10	10	10	10	10	10	10
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr)	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	10	10	10	10	10	10	10	10	10	10	10	10
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0.0399	0.0426	0.0557	0.0731	0.1016	0.1219	0.1379	0.1273	0.0985	0.0758	0.0469	0.0392
Vapor Space Volume (cu ft):	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002
Vapor Space Expansion Factor:	0.0296	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265
Vented Vapor Saturation Factor:	0.9958	0.9987	0.9965	0.9981	0.9977	0.9973	0.997	0.9971	0.9975	0.993	0.9983	0.9987
Tank Vapor Space Volume	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251
Vapor Space Volume (cu ft):	10	10	10	10	10	10	10	10	10	10	10	10
Tank Diameter (ft):	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927
Vapor Space Outage (ft):	14	14	14	14	14	14	14	14	14	14	14	14
Tank Shell Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):												
Roof Outage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	5	5	5	5	5	5	5	5	5	5	5	5
Vapor Density	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002
Vapor Density (lb/cu ft):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Molecular Weight (lb/lb-mole):	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0097	0.0080	0.0064
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	495.0694	496.5382	501.232	506.1059	510.9189	515.1456	517.8206	516.9653	512.9016	507.6786	502.6694	497.3745
Daily Avg. Liquid Surface Temperature (deg R):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Liquid Bulk Temperature (deg R):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Shell):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof):	597.1021	688.0387	1221.4895	1492.4381	1767.1939	1931.5398	1909.9654	1668.9599	1343.3212	927.0529	571.7205	478.7604
Daily Total Solar Insulation Factor (Btu/sqft/day)												
Vapor Space Expansion Factor	0.0296	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265
Vapor Space Expansion Factor:												

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia)	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Daily Avg Liquid Surface Temperature (deg R)	495.0594	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6766	502.8594	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9988	0.9987	0.9985	0.9981	0.9977	0.9973	0.997	0.9971	0.9975	0.998	0.9983	0.9987
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Vapor Space Outage (ft):	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927
Working Losses - Fixed Roof Tanks (lb):	0.1468	0.1561	0.1897	0.2312	0.2801	0.3306	0.3666	0.3547	0.3029	0.2463	0.203	0.1617
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0097	0.0080	0.0064
Net Throughput (gal/mo):	8,221.00	8,221.00	8,221.00	8,221.00	8,221.00	8,221.00	8,221.00	8,221.00	8,221.00	8,221.00	8,221.00	8,221.00
Turnovers:	11.9928	11.9928	11.9928	11.9928	11.9928	11.9928	11.9928	11.9928	11.9928	11.9928	11.9928	11.9928
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	8213.694	8213.694	8213.694	8213.694	8213.694	8213.694	8213.694	8213.694	8213.694	8213.694	8213.694	8213.694
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	10	10	10	10	10	10	10	10	10	10	10	10
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	0.1867	0.1988	0.2453	0.3043	0.3817	0.4525	0.5045	0.4820	0.4013	0.3220	0.2498	0.2009

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: A1
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline Additive	0.9603	2.9697	0.0000	0.0000	0.0000	0.0000	3.9300

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: A2
South Portland Terminal (SPTPM)

Identification	
Tank Name	A2
Configuration	2011-HT
City	South Portland
State	ME
Type of Tank	Horizontal Tank
Description	

Tank Dimensions	
Shell Height/Length (ft):	10
Diameter (ft):	8
Volume (gallons):	3998.4
No. of Columns:	0
Eff. Col. Diam (ft):	0

Shell Characteristics	
Internal Shell Condition:	Good
Shell Color/Shade:	White/White
Shell/Paint Condition:	Good/Good

Roof Characteristics	
Roof Condition:	
Roof Color/Shade:	
Type:	
Fitting Category:	

Deck Characteristics	
Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System	
Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings	
Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options	
Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)
Access Hatch (24-in. Diam.) - Unbolted Cover, Ungasketed	1	36	5.9	1.2	36.0000
Automatic Gauge Float Well - Unbolted Cover, Ungasketed	1	14	5.4	1.1	14.0000
Column Well (24-in. Diam.) - Built-Up Col.-Sliding Cover, Ungask.	1	47	0	0	47.0000
Roof Leg or Hanger Well - Adjustable	24	7.9	0	0	189.6000
Vacuum Breaker (10-in. Diam.) - Weighted Mech. Actuation, Gask.	1	8.2	1.2	0.94	6.2000
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w/o Float	1	43	270	1.4	43.0000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6585 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: A2
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline Additive	Good	Jan	35.4	31.29	39.51	45.4	0.00577	0.00485	0.00685	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Feb	36.87	32.28	41.45	45.4	0.00614	0.00506	0.00742	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Mar	41.56	37.07	46.06	45.4	0.00745	0.00619	0.00895	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Apr	46.44	41.38	51.49	45.4	0.00909	0.0074	0.01111	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	May	51.25	45.58	56.92	45.4	0.01101	0.00878	0.01374	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Jun	55.47	49.47	61.48	45.4	0.01299	0.01026	0.01636	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Jul	58.15	52.19	64.11	45.4	0.01441	0.01142	0.01807	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Aug	57.3	51.62	62.97	45.4	0.01394	0.01117	0.01731	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Sep	53.23	47.96	58.5	45.4	0.0119	0.00966	0.0146	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Oct	48.01	43.23	52.78	45.4	0.00968	0.00798	0.01169	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Nov	43.22	39.55	46.89	45.4	0.00798	0.00686	0.00925	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Dec	37.7	34.02	41.39	45.4	0.00635	0.00544	0.0074	130			188	RVP:0 A:15.672 B:10310.88

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: A2
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mph)^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	8	8	8	8	8	8	8	8	8	8	8	8
Tank Diameter (ft)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Molecular Weight (lb/lb-mole)	1	1	1	1	1	1	1	1	1	1	1	1
Product Factor:												
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	3,758	3,758	3,758	3,758	3,758	3,758	3,758	3,758	3,758	3,758	3,758	3,758
Shell Clingage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	335.8	335.8	335.8	335.8	335.8	335.8	335.8	335.8	335.8	335.8	335.8	335.8
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft)	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0.0204	0.0218	0.0285	0.0374	0.052	0.0625	0.0707	0.0652	0.0504	0.0388	0.024	0.0201
Vapor Space Volume (cu ft):	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002
Vapor Space Expansion Factor	0.0296	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265
Vented Vapor Saturation Factor	0.999	0.999	0.9988	0.9985	0.9982	0.9978	0.9976	0.9977	0.998	0.9984	0.9987	0.9989
Tank Vapor Space Volume	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Vapor Space Volume (cu ft)	8	8	8	8	8	8	8	8	8	8	8	8
Tank Diameter (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Vapor Space Outage (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Tank Shell Height (ft)	5	5	5	5	5	5	5	5	5	5	5	5
Average Liquid Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft)												
Roof Outage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft)	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft)	4	4	4	4	4	4	4	4	4	4	4	4
Vapor Density	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002
Vapor Density (lb/cu ft)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Molecular Weight (lb/lb-mole):	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0097	0.0080	0.0064
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	495.0684	496.5382	501.232	508.1059	510.9169	515.1456	517.8206	516.9653	512.9016	507.6766	502.6894	497.3745
Daily Avg Liquid Surface Temperature (deg R):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Liquid Bulk Temperature (deg R)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Shell)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof)	597.1021	888.0387	1221.4895	1492.4361	1767.1939	1931.5393	1909.9654	1698.9909	1343.3212	927.0629	571.7205	478.7604
Daily Total Solar Insulation Factor (Btu/sqft/day)												
Vapor Space Expansion Factor	0.0296	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265
Vapor Space Expansion Factor:												

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6766	502.6894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.999	0.999	0.9988	0.9985	0.9982	0.9978	0.9976	0.9977	0.998	0.9984	0.9987	0.9989
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Vapor Space Outage (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Working Losses - Fixed Roof Tanks (lb):	**0.0671**	**0.0714**	**0.0567**	**0.1057**	**0.1281**	**0.1511**	**0.1676**	**0.1621**	**0.1384**	**0.1126**	**0.0928**	**0.0739**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0097	0.0080	0.0064
Net Throughput (gal/mo):	3,758.00	3,758.00	3,758.00	3,758.00	3,758.00	3,758.00	3,758.00	3,758.00	3,758.00	3,758.00	3,758.00	3,758.00
Turnovers:	11.9922	11.9922	11.9922	11.9922	11.9922	11.9922	11.9922	11.9922	11.9922	11.9922	11.9922	11.9922
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	3754.8315	3754.8315	3754.8315	3754.8315	3754.8315	3754.8315	3754.8315	3754.8315	3754.8315	3754.8315	3754.8315	3754.8315
Maximum Liquid Height (ft):	10	10	10	10	10	10	10	10	10	10	10	10
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	0.0376	0.0332	0.1152	0.1431	0.1801	0.2136	0.2382	0.2273	0.1889	0.1514	0.1168	0.0940

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: A2
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline Additive	0.4919	1.3575	0.0000	0.0000	0.0000	0.0000	1.8494

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: A3
South Portland Terminal (SPTPM)

Identification

Tank Name	A3
Configuration	HMT IMPORT
City	South Portland
State	ME
Type of Tank	Horizontal Tank
Description	

Tank Dimensions

Shell Height/Length (ft):	26.833
Diameter (ft):	8
Volume (gallons):	9996
No. of Columns:	0
Eff. Col. Diam (ft):	1

Shell Characteristics

Internal Shell Condition:	
Shell Color/Shade:	
Shell/Paint Condition:	/

Roof Characteristics

Roof Condition:	
Roof Color/Shade:	
Type:	
Fitting Category:	

Deck Characteristics

Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System

Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings

Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options

Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

	Roof Fitting Loss Factors				
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6855 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: A3
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline Additive		Jan	34.03	30.62	37.43	44.38	0.00544	0.00471	0.00628	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Feb	35.1	31.58	38.63	44.38	0.0057	0.00491	0.0066	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Mar	39.35	36.31	42.39	44.38	0.0068	0.00599	0.00771	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Apr	43.86	40.58	47.14	44.38	0.00819	0.00716	0.00935	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		May	48.3	44.74	51.87	44.38	0.00979	0.00849	0.01128	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Jun	52.31	48.6	56.02	44.38	0.01148	0.00991	0.01327	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Jul	55.01	51.32	58.7	44.38	0.01276	0.01104	0.01472	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Aug	54.44	50.79	58.1	44.38	0.01248	0.01081	0.01438	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Sep	50.68	47.18	54.53	44.38	0.01084	0.00936	0.01252	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Oct	46.19	42.52	49.86	44.38	0.009	0.00775	0.01042	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Nov	41.88	38.89	44.87	44.38	0.00755	0.00668	0.00853	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Dec	36.49	33.38	39.6	44.38	0.00604	0.0053	0.00688	130			188	RVP:0 A:15.672 B:10310.88

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: A3
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0.0054	0.0057	0.0068	0.0082	0.0098	0.0115	0.0128	0.0125	0.0108	0.009	0.0076	0.006
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	8	8	8	8	8	8	8	8	8	8	8	8
Tank Diameter (ft)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Molecular Weight (lb/lb-mole)	1	1	1	1	1	1	1	1	1	1	1	1
Product Factor:												
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	10,084	10,084	10,084	10,084	10,084	10,084	10,084	10,084	10,084	10,084	10,084	10,084
Shell Clinage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr)	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0.016	0.0157	0.0177	0.022	0.0293	0.0343	0.039	0.0378	0.0322	0.0278	0.0185	0.0162
Vapor Space Volume (cu ft):	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0001
Vapor Space Expansion Factor:	0.0245	0.0254	0.0219	0.0236	0.0257	0.0267	0.0266	0.0263	0.0264	0.0264	0.0215	0.0224
Vented Vapor Saturation Factor:	0.9991	0.9991	0.9989	0.9986	0.9984	0.9981	0.9979	0.9979	0.9982	0.9985	0.9987	0.999
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Space Outage (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Tank Shell Height (ft):	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	4	4	4	4	4	4	4	4	4	4	4	4
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0001
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0054	0.0057	0.0068	0.0082	0.0098	0.0115	0.0128	0.0125	0.0108	0.0090	0.0076	0.0060
Daily Avg. Liquid Surface Temperature (deg R)	493.6963	494.7743	499.0203	503.5503	507.9743	511.9783	514.6843	514.1123	510.5263	505.8623	501.5503	496.1603
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492
Tank Paint Solar Absorbance (Shell)	0	0	0	0	0	0	0	0	0	0	0	0
Tank Paint Solar Absorbance (Roof):	0	0	0	0	0	0	0	0	0	0	0	0
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	888.0387	1221.4895	1492.4381	1767.1939	1931.5393	1909.9654	1698.9909	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0245	0.0254	0.0219	0.0236	0.0257	0.0267	0.0266	0.0263	0.0264	0.0264	0.0215	0.0224

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0054	0.0057	0.0068	0.0082	0.0098	0.0115	0.0128	0.0125	0.0108	0.009	0.0076	0.006
Daily Avg Liquid Surface Temperature (deg R):	493.6963	494.7743	499.0203	503.5303	507.9743	511.9783	514.6843	514.1123	510.5263	505.6523	501.6503	496.1603
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9991	0.9991	0.9989	0.9986	0.9984	0.9981	0.9979	0.9979	0.9982	0.9985	0.9987	0.999
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0054	0.0057	0.0068	0.0082	0.0098	0.0115	0.0128	0.0125	0.0108	0.009	0.0076	0.006
Vapor Space Outage (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Working Losses - Fixed Roof Tanks (lb):	**0.17**	**0.1779**	**0.2124**	**0.2555**	**0.3057**	**0.3583**	**0.3983**	**0.3895**	**0.3383**	**0.2808**	**0.2357**	**0.1885**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0054	0.0057	0.0068	0.0082	0.0098	0.0115	0.0128	0.0125	0.0108	0.0090	0.0076	0.0060
Net Throughput (gal/mo):	10,084.00	10,084.00	10,084.00	10,084.00	10,084.00	10,084.00	10,084.00	10,084.00	10,084.00	10,084.00	10,084.00	10,084.00
Turnovers:	11.9924	11.9924	11.9924	11.9924	11.9924	11.9924	11.9924	11.9924	11.9924	11.9924	11.9924	11.9924
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	0.1860	0.1935	0.2301	0.2775	0.3350	0.3926	0.4373	0.4273	0.3705	0.3087	0.2543	0.2047

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: A3
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline Additive	0.3064	3.3109	0.0000	0.0000	0.0000	0.0000	3.6173

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: A4
South Portland Terminal (SPTPM)

Identification

Tank Name	A4
Configuration	HT
City	South Portland
State	ME
Type of Tank	Horizontal Tank
Description	

Tank Dimensions

Shell Height/Length (ft):	26.833
Diameter (ft):	8
Volume (gallons):	9996
No. of Columns:	0
Eff. Col. Diam (ft):	1

Shell Characteristics

Internal Shell Condition:	
Shell Color/Shade:	White/White
Shell Paint Condition:	/Good

Roof Characteristics

Roof Condition:	
Roof Color/Shade:	
Type:	
Fitting Category:	

Deck Characteristics

Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System

Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings

Vacuum Settings (psia):	0
Pressure Settings (psia):	0

Tank Options

Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6666 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: A4
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Biodiesel	Good	Jan	35.4	31.29	39.51	45.4	0.00288	0.0026	0.00341	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Feb	36.87	32.28	41.45	45.4	0.00313	0.00269	0.00364	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Mar	41.56	37.07	46.06	45.4	0.00365	0.00315	0.00422	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Apr	46.44	41.38	51.49	45.4	0.00427	0.00363	0.005	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	May	51.25	45.58	56.92	45.4	0.00495	0.00415	0.00591	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Jun	55.47	49.47	61.48	45.4	0.00566	0.00469	0.00679	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Jul	58.15	52.19	64.11	45.4	0.00614	0.00511	0.00734	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Aug	57.3	51.62	62.97	45.4	0.00598	0.00502	0.0071	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Sep	53.23	47.96	58.5	45.4	0.00528	0.00448	0.0062	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Oct	48.01	43.23	52.78	45.4	0.00448	0.00385	0.00521	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Nov	43.22	39.55	46.89	45.4	0.00385	0.00342	0.00433	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Dec	37.7	34.02	41.39	45.4	0.00322	0.00285	0.00363	32.1			277.4	RVP:0 A:10.622 B:8137.7

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: A4
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surage Temperature (psia)	0.003	0.0031	0.0036	0.0043	0.005	0.0057	0.0061	0.006	0.0053	0.0045	0.0038	0.0032
Tank Diameter (ft)	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Molecular Weight (lb/lb-mole)	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	87,398	87,398	87,398	87,398	87,398	87,398	87,398	87,398	87,398	87,398	87,398	87,398
Shell Clinage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Molecular Weight (lb/lb-mole):	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0.0029	0.0031	0.0038	0.0048	0.0063	0.0073	0.008	0.0075	0.006	0.0049	0.0032	0.0028
Vapor Space Volume (cu ft):	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Vapor Density (lb/cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:	0.0333	0.037	0.0359	0.04	0.0445	0.0468	0.0462	0.0441	0.0412	0.0377	0.0292	0.0297
Vented Vapor Saturation Factor:	0.9995	0.9995	0.9994	0.9993	0.9992	0.9991	0.999	0.999	0.9991	0.9993	0.9994	0.9995
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Space Outage (ft)	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Tank Shell Height (ft):	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833	26.833
Average Liquid Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	4	4	4	4	4	4	4	4	4	4	4	4
Vapor Density												
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole)	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0030	0.0031	0.0036	0.0043	0.0050	0.0057	0.0061	0.0060	0.0053	0.0045	0.0038	0.0032
Daily Avg. Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	508.1059	510.9189	515.1438	517.8206	516.9653	512.9018	507.6766	502.8694	497.3745
Ideal Gas Constant R (psia cuft/lb-mol-deg R)	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	888.0387	1221.4695	1492.4331	1767.1939	1931.5393	1909.9654	1698.9509	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0333	0.037	0.0359	0.04	0.0445	0.0468	0.0462	0.0441	0.0412	0.0377	0.0292	0.0297

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.003	0.0031	0.0036	0.0043	0.005	0.0057	0.0061	0.006	0.0053	0.0045	0.0038	0.0032
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5352	501.232	506.1059	510.9159	515.1436	517.8206	516.9653	512.9016	507.6766	502.8594	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9995	0.9995	0.9994	0.9993	0.9992	0.9991	0.999	0.999	0.9991	0.9993	0.9994	0.9995
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.003	0.0031	0.0036	0.0043	0.005	0.0057	0.0061	0.006	0.0053	0.0045	0.0038	0.0032
Vapor Space Outage (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Working Losses - Fixed Roof Tanks (lb):	**0.0907**	**0.0952**	**0.111**	**0.1297**	**0.151**	**0.172**	**0.1867**	**0.1819**	**0.1606**	**0.1364**	**0.1171**	**0.0978**
Vapor Molecular Weight (lb/lb-mole):	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0030	0.0031	0.0036	0.0043	0.0050	0.0057	0.0061	0.0060	0.0053	0.0045	0.0038	0.0032
Net Throughput (gal/mo):	87,398.00	87,398.00	87,398.00	87,398.00	87,398.00	87,398.00	87,398.00	87,398.00	87,398.00	87,398.00	87,398.00	87,398.00
Turnovers:	103.9383	103.9383	103.9383	103.9383	103.9383	103.9383	103.9383	103.9383	103.9383	103.9383	103.9383	103.9383
Turnover Factor:	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553
Maximum Liquid Volume (gal):	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395	10075.3395
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	0.0936	0.0983	0.1148	0.1345	0.1573	0.1793	0.1947	0.1893	0.1666	0.1412	0.1202	0.1006

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: A4
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Biodiesel	0.0005	1.6299	0.0000	0.0000	0.0000	0.0000	1.6305

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: A5
South Portland Terminal (SPTPM)

Identification

Tank Name	A5
Configuration	HT
City	South Portland
State	ME
Type of Tank	Horizontal Tank
Description	

Tank Dimensions

Shell Height/Length (ft):	21
Diameter (ft):	10
Volume (gallons):	9996
No. of Columns:	0
Eff. Col. Diam (ft):	1

Shell Characteristics

Internal Shell Condition:	
Shell Color/Shade:	White/White
Shell/Paint Condition:	/Good

Roof Characteristics

Roof Condition:	
Roof Color/Shade:	
Type:	
Fitting Category:	

Deck Characteristics

Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System

Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings

Vacuum Settings (psia):	0
Pressure Settings (psia):	0

Tank Options

Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1, Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6835 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: A5
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Biodiesel	Good	Jan	35.4	31.29	39.51	45.4	0.00298	0.0026	0.00341	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Feb	36.87	32.28	41.45	45.4	0.00313	0.00269	0.00364	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Mar	41.56	37.07	46.06	45.4	0.00365	0.00315	0.00422	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Apr	46.44	41.39	51.49	45.4	0.00427	0.00363	0.005	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	May	51.25	45.58	56.92	45.4	0.00496	0.00415	0.00591	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Jun	55.47	49.47	61.48	45.4	0.00566	0.00469	0.00679	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Jul	58.15	52.19	64.11	45.4	0.00614	0.00511	0.00734	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Aug	57.3	51.62	62.97	45.4	0.00598	0.00502	0.0071	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Sep	53.23	47.96	58.5	45.4	0.00528	0.00448	0.0062	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Oct	48.01	43.23	52.78	45.4	0.00448	0.00385	0.00521	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Nov	43.22	39.55	46.89	45.4	0.00385	0.00342	0.00433	32.1			277.4	RVP:0 A:10.622 B:8137.7
Biodiesel	Good	Dec	37.7	34.02	41.39	45.4	0.00322	0.00285	0.00363	32.1			277.4	RVP:0 A:10.622 B:8137.7

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: A5
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0.003	0.0031	0.0036	0.0043	0.005	0.0057	0.0061	0.006	0.0053	0.0045	0.0038	0.0032
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	10	10	10	10	10	10	10	10	10	10	10	10
Tank Diameter (ft)	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Vapor Molecular Weight (lb/lb-mole)	1	1	1	1	1	1	1	1	1	1	1	1
Product Factor:												
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	106,874	106,874	106,874	106,874	106,874	106,874	106,874	106,874	106,874	106,874	106,874	106,874
Shell Clinage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	10	10	10	10	10	10	10	10	10	10	10	10
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	10	10	10	10	10	10	10	10	10	10	10	10
Vapor Molecular Weight (lb/lb-mole):	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0.0057	0.005	0.0075	0.0093	0.0123	0.0142	0.0156	0.0146	0.0117	0.0095	0.0062	0.0055
Vapor Space Volume (cu ft):	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251
Vapor Density (lb/cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor	0.0333	0.037	0.0359	0.04	0.0445	0.0468	0.0462	0.0441	0.0412	0.0377	0.0292	0.0297
Vented Vapor Saturation Factor:	0.9994	0.9993	0.9992	0.9991	0.999	0.9988	0.9987	0.9988	0.9989	0.9991	0.9992	0.9993
Tank Vapor Space Volume	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251	308.4251
Vapor Space Volume (cu ft)	10	10	10	10	10	10	10	10	10	10	10	10
Tank Diameter (ft)	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927
Vapor Space Outage (ft)	21	21	21	21	21	21	21	21	21	21	21	21
Tank Shell Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Average Liquid Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft)												
Roof Outage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft)	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft)	5	5	5	5	5	5	5	5	5	5	5	5
Vapor Density												
Vapor Density (lb/cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole)	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0030	0.0031	0.0036	0.0043	0.0050	0.0057	0.0061	0.0060	0.0053	0.0045	0.0038	0.0032
Daily Avg. Liquid Surface Temperature (deg R):	495.0691	496.5382	501.232	508.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6766	502.6594	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	888.0387	1221.4695	1492.4381	1767.1939	1931.5398	1909.9654	1698.9309	1343.3212	927.0629	571.7205	478.7601
Vapor Space Expansion Factor	0.0333	0.037	0.0359	0.04	0.0445	0.0468	0.0462	0.0441	0.0412	0.0377	0.0292	0.0297
Vapor Space Expansion Factor:												

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia)	0.003	0.0031	0.0036	0.0043	0.005	0.0057	0.0061	0.006	0.0053	0.0045	0.0038	0.0032
Daily Avg Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.6206	516.9653	512.9016	507.6786	502.5894	497.3745
Daily Ambient Temperature Range (deg R)	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9994	0.9993	0.9992	0.9991	0.999	0.9988	0.9987	0.9988	0.9989	0.9991	0.9992	0.9993
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.003	0.0031	0.0036	0.0043	0.005	0.0057	0.0061	0.006	0.0053	0.0045	0.0038	0.0032
Vapor Space Outage (ft):	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927	3.927
Working Losses - Fixed Roof Tanks (lb):	**0.1109**	**0.1164**	**0.1357**	**0.1587**	**0.1846**	**0.2104**	**0.2283**	**0.2224**	**0.1963**	**0.1668**	**0.1432**	**0.1196**
Vapor Molecular Weight (lb/lb-mole):	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0030	0.0031	0.0036	0.0043	0.0050	0.0057	0.0061	0.0060	0.0053	0.0045	0.0038	0.0032
Net Throughput (gal/mo):	106,874.00	106,874.00	106,874.00	106,874.00	106,874.00	106,874.00	106,874.00	106,874.00	106,874.00	106,874.00	106,874.00	106,874.00
Turnovers:	103.9384	103.9384	103.9384	103.9384	103.9384	103.9384	103.9384	103.9384	103.9384	103.9384	103.9384	103.9384
Turnover Factor:	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553	0.4553
Maximum Liquid Volume (gal):	12320.541	12320.541	12320.541	12320.541	12320.541	12320.541	12320.541	12320.541	12320.541	12320.541	12320.541	12320.541
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	10	10	10	10	10	10	10	10	10	10	10	10
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	0.1166	0.1224	0.1432	0.1680	0.1970	0.2246	0.2439	0.2370	0.2081	0.1763	0.1493	0.1251

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: A5
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Biodiesel	0.1182	1.9932	0.0000	0.0000	0.0000	0.0000	2.1114

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: A6
South Portland Terminal (SPTPM)

Identification	
Tank Name	A6
Configuration	2011-HT
City	South Portland
State	ME
Type of Tank	Horizontal Tank
Description	

Tank Dimensions	
Shell Height/Length (ft):	21
Diameter (ft):	8
Volume (gallons):	8022
No. of Columns:	0
Eff. Col. Diam (ft):	0

Shell Characteristics	
Internal Shell Condition:	Good
Shell Color/Shade:	White/White
Shell/Paint Condition:	Good/Good

Roof Characteristics	
Roof Condition:	
Roof Color/Shade:	
Type:	
Fitting Category:	

Deck Characteristics	
Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System	
Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings	
Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options	
Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

		Roof Fitting Loss Factors			
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6685 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: A6
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline Additive	Good	Jan	35.4	31.29	39.51	45.4	0.00577	0.00485	0.00685	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Feb	36.87	32.28	41.45	45.4	0.00614	0.00506	0.00742	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Mar	41.56	37.07	46.06	45.4	0.00745	0.00619	0.00895	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Apr	46.44	41.38	51.49	45.4	0.00909	0.0074	0.01111	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	May	51.25	45.58	56.92	45.4	0.01101	0.00878	0.01374	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Jun	55.47	49.47	61.48	45.4	0.01299	0.01026	0.01636	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Jul	58.15	52.19	64.11	45.4	0.01441	0.01142	0.01807	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Aug	57.3	51.62	62.97	45.4	0.01394	0.01117	0.01731	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Sep	53.23	47.96	58.5	45.4	0.0119	0.00966	0.0146	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Oct	48.01	43.23	52.78	45.4	0.00968	0.00798	0.01169	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Nov	43.22	39.55	46.89	45.4	0.00798	0.00655	0.00925	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Dec	37.7	34.02	41.39	45.4	0.00635	0.00544	0.0074	130			188	RVP:0 A:15.672 B:10310.88

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: A6
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	8	8	8	8	8	8	8	8	8	8	8	8
Tank Diameter (ft)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Molecular Weight (lb/lb-mole)	1	1	1	1	1	1	1	1	1	1	1	1
Product Factor:												
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	7,892	7,892	7,892	7,892	7,892	7,892	7,892	7,892	7,892	7,892	7,892	7,892
Shell Clinage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0.0204	0.0218	0.0285	0.0374	0.052	0.0625	0.0707	0.0652	0.0504	0.0388	0.024	0.0201
Vapor Space Volume (cu ft)	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002
Vapor Space Expansion Factor	0.0266	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265
Vented Vapor Saturation Factor	0.999	0.999	0.9988	0.9985	0.9982	0.9978	0.9976	0.9977	0.998	0.9984	0.9987	0.9989
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Space Outage (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Tank Shell Height (ft)	21	21	21	21	21	21	21	21	21	21	21	21
Average Liquid Height (ft):	5	5	5	5	5	5	5	5	5	5	5	5
Roof Outage (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	4	4	4	4	4	4	4	4	4	4	4	4
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0097	0.0080	0.0064
Daily Avg. Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	506.1059	510.9169	515.1436	517.8206	516.9653	512.9016	507.6766	502.6894	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	668.0387	1221.4595	1492.4381	1767.1939	1931.5393	1999.9654	1698.9909	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0266	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	516.5653	512.9016	507.6786	502.8894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.999	0.999	0.9988	0.9985	0.9982	0.9978	0.9976	0.9977	0.998	0.9984	0.9987	0.9989
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Vapor Space Outage (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Working Losses - Fixed Roof Tanks (lb):	**0.1409**	**0.1499**	**0.1821**	**0.222**	**0.2689**	**0.3173**	**0.3519**	**0.3405**	**0.2907**	**0.2364**	**0.1948**	**0.1552**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0097	0.0080	0.0064
Net Throughput (gal/mo):	7,892.00	7,892.00	7,892.00	7,892.00	7,892.00	7,892.00	7,892.00	7,892.00	7,892.00	7,892.00	7,892.00	7,892.00
Turnovers:	11.9925	11.9925	11.9925	11.9925	11.9925	11.9925	11.9925	11.9925	11.9925	11.9925	11.9925	11.9925
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	7885.1462	7885.1462	7885.1462	7885.1462	7885.1462	7885.1462	7885.1462	7885.1462	7885.1462	7885.1462	7885.1462	7885.1462
Maximum Liquid Height (ft):	10	10	10	10	10	10	10	10	10	10	10	10
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	0.1614	0.1717	0.2106	0.2594	0.3210	0.3793	0.4226	0.4057	0.3412	0.2752	0.2169	0.1753

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: A6
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline Additive	0.4919	2.8508	0.0000	0.0000	0.0000	0.0000	3.3427

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: A7
South Portland Terminal (SPTPM)

Identification		Shell Characteristics		Tank Construction and Rim-Seal System	
Tank Name	A7	Internal Shell Condition:	Good	Construction:	
Configuration	2011-HT	Shell Color/Shade:	White/White	Primary Seal:	
City	South Portland	Shell/Paint Condition:	Good/Good	Secondary Seal:	
State	ME				
Type of Tank	Horizontal Tank	Roof Characteristics		Breather Settings	
Description		Roof Condition:		Vacuum Settings (psia):	-0.03
		Roof Color/Shade:		Pressure Settings (psia):	0.03
Tank Dimensions		Type:			
Shell Height/Length (ft):	26.875	Fitting Category:		Tank Options	
Diameter (ft):	8			Is Tank Heated?	No
Volume (gallons):	10122	Deck Characteristics		Is Tank Underground?	No
No. of Columns:	0	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	0	Deck Type:			
		Construction:			
		Deck Seam:	(Length: 0 ft)		

		Roof Fitting Loss Factors			
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6685 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: A7
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline Additive	Good	Jan	35.4	31.29	39.51	45.4	0.00577	0.00485	0.00685	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Feb	36.87	32.28	41.45	45.4	0.00614	0.00506	0.00742	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Mar	41.56	37.07	46.06	45.4	0.00745	0.00619	0.00895	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Apr	46.44	41.38	51.49	45.4	0.00909	0.0074	0.01111	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	May	51.25	45.58	56.92	45.4	0.01101	0.00878	0.01374	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Jun	55.47	49.47	61.48	45.4	0.01299	0.01026	0.01636	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Jul	58.15	52.19	64.11	45.4	0.01441	0.01142	0.01807	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Aug	57.3	51.62	62.97	45.4	0.01394	0.01117	0.01731	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Sep	53.23	47.96	58.5	45.4	0.0119	0.00956	0.0146	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Nov	43.22	39.55	46.89	45.4	0.00798	0.00686	0.00925	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Dec	37.7	34.02	41.39	45.4	0.00635	0.00544	0.0074	130			188	RVP:0 A:15.672 B:10310.88

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: A7
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.008	0.0064
Tank Diameter (ft)	8	8	8	8	8	8	8	8	8	8	8
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	10,100	10,100	10,100	10,100	10,100	10,100	10,100	10,100	10,100	10,100	10,100
Shell Clinage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)											
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0.0204	0.0218	0.0285	0.0374	0.052	0.0625	0.0707	0.0652	0.0504	0.024	0.0201
Vapor Space Volume (cu ft)	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Vapor Density (lb/cu ft)	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002
Vapor Space Expansion Factor	0.0296	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0264	0.0265
Vented Vapor Saturation Factor	0.999	0.999	0.9988	0.9985	0.9982	0.9978	0.9976	0.9977	0.998	0.9987	0.9989
Tank Vapor Space Volume											
Vapor Space Volume (cu ft)	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Tank Diameter (ft)	8	8	8	8	8	8	8	8	8	8	8
Vapor Space Outage (ft)	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Tank Shell Height (ft)	26.875	26.875	26.875	26.875	26.875	26.875	26.875	26.875	26.875	26.875	26.875
Average Liquid Height (ft)	5	5	5	5	5	5	5	5	5	5	5
Roof Outage (ft)	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft)	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft)	4	4	4	4	4	4	4	4	4	4	4
Vapor Density											
Vapor Density (lb/cu ft)	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0080	0.0064
Daily Avg. Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	506.1059	510.9169	515.1436	517.8206	516.9653	512.9016	502.8894	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof)	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day):	597.1021	883.0337	1221.4595	1492.4331	1767.1939	1931.5393	1909.9654	1698.9809	1343.3212	971.7205	678.7604
Vapor Space Expansion Factor											
Vapor Space Expansion Factor:	0.0296	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0264	0.0265

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.008	0.0064
Daily Avg Liquid Surface Temperature (deg R):	495.0694	496.5382	501.232	506.1659	510.9189	515.1436	517.8206	516.9653	512.9016	502.8894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	16.6	17.3
Vented Vapor Saturation Factor											
Vented Vapor Saturation Factor:	0.999	0.999	0.9988	0.9985	0.9982	0.9978	0.9976	0.9977	0.998	0.9987	0.9989
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.008	0.0064
Vapor Space Outage (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Working Losses - Fixed Roof Tanks (lb):	**0.1804**	**0.1918**	**0.233**	**0.2841**	**0.3442**	**0.4061**	**0.4504**	**0.4358**	**0.3721**	**0.2494**	**0.1987**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0080	0.0064
Net Throughput (gal/mo):	10,100.00	10,100.00	10,100.00	10,100.00	10,100.00	10,100.00	10,100.00	10,100.00	10,100.00	10,100.00	10,100.00
Turnovers:	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	10091.1098	10091.1098	10091.1098	10091.1098	10091.1098	10091.1098	10091.1098	10091.1098	10091.1098	10091.1098	10091.1098
Maximum Liquid Height (ft):	10	10	10	10	10	10	10	10	10	10	10
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	0.2008	0.2137	0.2615	0.3215	0.3962	0.4686	0.5211	0.5010	0.4225	0.2734	0.2187

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: A7
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline Additive	0.4531	3.3459	0.0000	0.0000	0.0000	0.0000	3.7989

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: A8
South Portland Terminal (SPTPM)

Identification

Tank Name	A8
Configuration	2011-HT
City	South Portland
State	ME
Type of Tank	Horizontal Tank
Description	

Tank Dimensions

Shell Height/Length (ft):	21.75
Diameter (ft):	8
Volume (gallons):	8190
No. of Columns:	0
Eff. Col. Diam (ft):	0

Shell Characteristics

Internal Shell Condition:	Good
Shell Color/Shade:	White/White
Shell/Paint Condition:	Good/Good

Roof Characteristics

Roof Condition:	
Roof Color/Shade:	
Type:	
Fitting Category:	

Deck Characteristics

Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System

Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings

Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options

Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)
Access Hatch (24-in. Diam.) - Unbolted Cover, Gasketed	1	31	5.2	1.3	31.0000
Automatic Gauge Float Well - Unbolted Cover, Ungasketed	1	14	5.4	1.1	14.0000
Roof Leg or Hanger Well - Adjustable	26	7.9	0	0	205.4000
Vacuum Breaker (10-in. Diam.) - Weighted Mech. Actuation, Ungask.	1	7.8	0.01	4	7.8000
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w/o Float	1	43	270	1.4	43.0000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6685 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: A8
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline Additive	Good	Jan	35.4	31.29	39.51	45.4	0.00577	0.00455	0.00685	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Feb	36.87	32.28	41.45	45.4	0.00614	0.00506	0.00742	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Mar	41.56	37.07	46.06	45.4	0.00745	0.00619	0.00895	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Apr	46.44	41.38	51.49	45.4	0.00909	0.0074	0.01111	130			188	RVP:0 A:15.672 B:10310.88
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Gasoline Additive	Good	Jul	58.15	52.19	64.11	45.4	0.01441	0.01142	0.01807	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Aug	57.3	51.62	62.97	45.4	0.01394	0.01117	0.01731	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Sep	53.23	47.96	58.5	45.4	0.0119	0.00966	0.0146	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Oct	48.01	43.23	52.78	45.4	0.00968	0.00789	0.01159	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Nov	43.22	39.55	46.89	45.4	0.00798	0.00686	0.00925	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive	Good	Dec	37.7	34.02	41.39	45.4	0.00635	0.00544	0.0074	130			188	RVP:0 A:15.672 B:10310.88

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: A8
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent:	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surage Temperature (psia)	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Tank Diameter (ft)	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	8,174	8,174	8,174	8,174	8,174	8,174	8,174	8,174	8,174	8,174	8,174	8,174
Shell Clinage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0.0204	0.0218	0.0285	0.0374	0.052	0.0525	0.0707	0.0652	0.0504	0.0388	0.024	0.0201
Vapor Space Volume (cu ft):	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002
Vapor Space Expansion Factor:	0.0286	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265
Vented Vapor Saturation Factor:	0.999	0.999	0.9988	0.9985	0.9982	0.9978	0.9976	0.9977	0.998	0.9984	0.9987	0.9989
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137	157.9137
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Vapor Space Outage (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Tank Shell Height (ft):	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75
Average Liquid Height (ft):	5	5	5	5	5	5	5	5	5	5	5	5
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	4	4	4	4	4	4	4	4	4	4	4	4
Vapor Density:												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia):	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0097	0.0080	0.0064
Daily Avg. Liquid Surface Temperature (deg R):	495.0694	498.5382	501.232	508.1059	510.9169	515.1436	517.8206	516.5653	512.9016	507.6766	502.6894	497.3745
Ideal Gas Constant R (psia cuft/(lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R):	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day):	597.1021	858.0387	1221.4595	1492.4331	1767.1939	1931.5393	1909.9654	1668.9509	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor:												
Vapor Space Expansion Factor:	0.0286	0.033	0.0324	0.0364	0.0408	0.0432	0.0429	0.0409	0.0379	0.0344	0.0264	0.0265

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Daily Avg Liquid Surface Temperature (deg R):	495.0594	496.5382	501.232	506.1059	510.9159	515.1436	517.8206	516.9653	512.9016	507.6786	502.8894	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.999	0.999	0.9988	0.9985	0.9982	0.9978	0.9976	0.9977	0.998	0.9984	0.9987	0.9989
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.011	0.013	0.0144	0.0139	0.0119	0.0097	0.008	0.0064
Vapor Space Outage (ft):	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416	3.1416
Working Losses - Fixed Roof Tanks (lb):	**0.146**	**0.1553**	**0.1886**	**0.2299**	**0.2785**	**0.3287**	**0.3645**	**0.3527**	**0.3011**	**0.2449**	**0.2018**	**0.1608**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0058	0.0061	0.0075	0.0091	0.0110	0.0130	0.0144	0.0139	0.0119	0.0097	0.0080	0.0064
Net Throughput (gal/mo):	8,174.00	8,174.00	8,174.00	8,174.00	8,174.00	8,174.00	8,174.00	8,174.00	8,174.00	8,174.00	8,174.00	8,174.00
Turnovers:	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927	11.9927
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	8166.7586	8166.7586	8166.7586	8166.7586	8166.7586	8166.7586	8166.7586	8166.7586	8166.7586	8166.7586	8166.7586	8166.7586
Maximum Liquid Height (ft):	10	10	10	10	10	10	10	10	10	10	10	10
Tank Diameter (ft):	8	8	8	8	8	8	8	8	8	8	8	8
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	0.1664	0.1771	0.2171	0.2673	0.3306	0.3911	0.4352	0.4179	0.3516	0.2837	0.2258	0.1808

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: A8
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline Additive	0.4919	2.9527	0.0000	0.0000	0.0000	0.0000	3.4446

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 29
South Portland Terminal (SPTPM)

Identification	
Tank Name	29
Configuration	Adding CS
City	South Portland
State	ME
Type of Tank	Internal Floating Roof Tank
Description	

Tank Dimensions	
Shell Height/Length (ft):	40.6
Diameter (ft):	100
Volume (gallons):	2365600
No. of Columns:	9
Eff. Col. Diam (ft):	1

Shell Characteristics	
Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell/Paint Condition:	/Good

Roof Characteristics	
Roof Condition:	Good
Roof Color/Shade:	White/White
Type:	
Fitting Category:	

Deck Characteristics	
Deck Fitting Category:	
Deck Type:	Bolted
Construction:	Sheet
Deck Seam:	5 ft wide (Length: 1571 ft)

Tank Construction and Rim-Seal System	
Construction:	Riveted
Primary Seal:	Vapor-mounted
Secondary Seal:	Rim-mounted

Breather Settings	
Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options	
Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?.	No

Roof Fitting Loss Factors

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/[yr mph^n])	m	Fitting Loss Factor (lb/lb-mole)
Access Hatch (24-in. Diam.) - Bolted Cover, Gasketed	3	1.6	0	0	4.8000
Automatic Gauge Float Well - Bolted Cover, Gasketed	1	2.8	0	0	2.8000
Column Well (24-in. Diam.) - Built-Up Col.-Sliding Cover, Gask.	8	33	0	0	264.0000
Column Well (24-in. Diam.) - Pipe Col.-Sliding Cover, Gask.	1	25	0	0	25.0000
Ladder Well (36-in. Diam.) - Sliding Cover, Gasketed	1	56	0	0	56.0000
Stub Drain (1-in. Diameter) - None	21	1.2	0	0	25.2000
Vacuum Breaker (10-in. Diam.) - Weighted Mech. Actuation, Gask.	1	6.2	1.2	0.94	6.2000
Gauge-Hatch/Sample Well (8-in. Diam.) - Weighted Mech. Actuation, Gask.	1	0.47	0.02	0.97	0.4700
Slotted Guide-Pole/Sample Well - Gask. Sliding Cover, w. Pole Sleeve	1	11	46	1.4	11.0000

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6535 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 29
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline	Good	Jan	35.4	31.29	39.51	45.4	5.08177	4.67444	5.51699	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Feb	36.87	32.28	41.45	45.4	5.23393	4.77065	5.73247	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Mar	41.56	37.07	46.06	45.4	5.74478	5.25475	6.27055	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Apr	46.44	41.38	51.49	45.4	5.59415	5.06218	6.16982	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	May	51.25	45.58	56.92	45.4	3.87016	3.44394	4.33801	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jun	55.47	49.47	61.48	45.4	4.21484	3.73179	4.74707	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Jul	58.15	52.19	64.11	45.4	4.44576	3.94472	4.99682	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Aug	57.3	51.62	62.97	45.4	4.3709	3.89945	4.68721	67			92	RVP:9 A:11.75623519 B:5315.057883
Gasoline	Good	Sep	53.23	47.96	58.5	45.4	5.05884	4.55645	5.60459	65			92	RVP:11 A:11.695 B:5166.9
Gasoline	Good	Oct	48.01	43.23	52.78	45.4	5.76855	5.25201	6.32483	62			92	RVP:13.5 A:11.63212745 B:5015.715123
Gasoline	Good	Nov	43.22	39.55	46.89	45.4	5.93436	5.52126	6.3717	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046
Gasoline	Good	Dec	37.7	34.02	41.39	45.4	5.32219	4.94218	5.72518	60.15			96	RVP:15 A:11.5998779333478 B:4937.93060603046

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 29
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	**116.6195**	**120.97**	**136.0751**	**135.5841**	**93.7303**	**103.6092**	**110.4035**	**108.1849**	**125.3205**	**141.0052**	**141.6878**	**123.5239**
Seal Factor A (lb-mole/ft-yr):	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Seal Factor B (lb-mole/ft-yr (mpg^n)	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0568	5.7686	5.9344	5.3222
Tank Diameter (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	**8.9378**	**8.9378**	**8.9378**	**8.9378**	**8.9378**	**8.9378**	**8.9378**	**8.9378**	**8.9378**	**8.9378**	**8.9378**	**8.9378**
Net Throughput (gal/mo):	4,347,752	4,347,752	4,347,752	4,347,752	4,347,752	4,347,752	4,347,752	4,347,752	4,347,752	4,347,752	4,347,752	4,347,752
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Number of Fixed Roof Columns:	9	9	9	9	9	9	9	9	9	9	9	9
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	**209.6342**	**217.4546**	**244.6073**	**243.7247**	**168.4888**	**186.2469**	**198.4604**	**194.4722**	**225.275**	**253.4696**	**255.0562**	**222.0454**
Value of Vapor Pressure Function:	0.1058	0.1097	0.1234	0.1193	0.0763	0.0843	0.0899	0.0881	0.1052	0.1241	0.1287	0.112
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	395.47	395.47	395.47	395.47	395.47	395.47	395.47	395.47	395.47	395.47	395.47	395.47
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	**148.4441**	**153.9818**	**173.2089**	**172.5839**	**119.3086**	**131.8833**	**140.5318**	**137.7077**	**159.5195**	**179.4344**	**180.6079**	**157.2326**
Deck Seam Length (ft):	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Deck Seam Length Factor (ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Shell Height (ft):	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
Average Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft):	50	50	50	50	50	50	50	50	50	50	50	50
Vapor Density												
Vapor Density (lb/cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole)	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0568	5.7686	5.9344	5.3222
Daily Avg. Liquid Surface Temperature (deg R)	495.0692	498.5382	501.232	506.1059	510.9189	515.1436	517.8206	518.9653	512.9016	507.6786	502.8694	497.3745
Ideal Gas Constant R (psia cuft/lb-mol-deg R)	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692	505.0692
Tank Paint Solar Absorbance (Shell):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tank Paint Solar Absorbance (Roof):	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	888.0387	1221.4395	1492.4331	1767.1939	1931.5393	1909.9651	1698.5309	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0	0	0	0	0	0	0	0	0	0	0	0

Daily Vapor Temperature Range (def R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Daily Avg Liquid Surface Temperature (deg R)	495.0694	496.5382	501.232	506.1059	510.9189	515.1436	517.8206	516.9653	512.9016	507.6766	502.8884	497.3745
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	60.15	60.15	60.15	62	67	67	67	67	65	62	60.15	60.15
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	5.0818	5.2339	5.7448	5.5941	3.8702	4.2148	4.4458	4.3709	5.0583	5.7686	5.9344	5.3222
Net Throughput (gal/mo):	4,347,752.004	4,347,752.004	4,347,752.004	4,347,752.004	4,347,752.004	4,347,752.004	4,347,752.004	4,347,752.004	4,347,752.004	4,347,752.004	4,347,752.004	4,347,752.00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	100	100	100	100	100	100	100	100	100	100	100	100
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	483.6366	501.3443	562.8291	560.8305	390.4656	430.6772	458.3335	449.3027	519.0530	582.6970	586.4898	511.7397

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 29
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline	0.0000	0.0000	1,456.9139	107.2542	2,618.9353	1,854.4945	6,037.5979

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: 31
South Portland Terminal (SPTPM)

Identification		**Shell Characteristics**		**Tank Construction and Rim-Seal System**	
Tank Name	31	Internal Shell Condition:		Construction:	
Configuration	HMT IMPORT	Shell Color/Shade:		Primary Seal:	
City	South Portland	Shell/Paint Condition:	/	Secondary Seal:	
State	ME				
Type of Tank	Vertical Fixed Roof Tank	**Roof Characteristics**		**Breather Settings**	
Description		Roof Condition:		Vacuum Settings (psia):	-0.03
		Roof Color/Shade:		Pressure Settings (psia):	0.03
Tank Dimensions		Type:	Cone		
Shell Height/Length (ft):	29.5	Fitting Category:		**Tank Options**	
Diameter (ft):	35			Is Tank Heated?	No
Volume (gallons):	214200	**Deck Characteristics**		Is Tank Underground?	No
No. of Columns:	0	Deck Fitting Category:		Self Supp. Roof?:	No
Eff. Col. Diam (ft):	1	Deck Type:			
		Construction:			
		Deck Seam:	(Length: 0 ft)		

	Roof Fitting Loss Factors				
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6885 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: 31
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
PCW - 99/1		Jan	34.03	30.62	37.43	44.38	0.14017	0.12677	0.15477	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Feb	35.1	31.58	38.63	44.38	0.14466	0.1304	0.16024	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Mar	39.35	36.31	42.39	44.38	0.16359	0.14982	0.17842	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Apr	43.86	40.58	47.14	44.38	0.18593	0.16947	0.20386	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		May	48.3	44.74	51.87	44.38	0.21058	0.19065	0.23228	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Jun	52.31	48.6	56.02	44.38	0.23509	0.21292	0.25992	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Jul	55.01	51.32	58.7	44.38	0.253	0.22885	0.27929	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Aug	54.44	50.79	58.1	44.38	0.24912	0.22551	0.27481	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Sep	50.86	47.18	54.53	44.38	0.22593	0.20413	0.2497	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Oct	46.19	42.52	49.86	44.38	0.19857	0.17907	0.21986	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Nov	41.68	38.89	44.87	44.38	0.17565	0.16145	0.19134	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127
PCW - 99/1		Dec	36.49	33.38	39.6	44.38	0.15062	0.13752	0.16478	18.02			18.14	RVP:0.75 A:12.51683364 B:7149.590127

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: 31
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mph)^n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.1402	0.1447	0.1636	0.186	0.2106	0.2351	0.253	0.2491	0.2259	0.1986	0.1758	0.1506
Tank Diameter (ft)	35	35	35	35	35	35	35	35	35	35	35	35
Vapor Molecular Weight (lb/lb-mole)	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	214,200	214,200	214,200	214,200	214,200	214,200	214,200	214,200	214,200	214,200	214,200	214,200
Shell Clinage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	35	35	35	35	35	35	35	35	35	35	35	35
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)												
Average Wind Speed (mph):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	35	35	35	35	35	35	35	35	35	35	35	35
Vapor Molecular Weight (lb/lb-mole):	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	8.7272	8.4161	8.5708	9.9253	12.3471	13.4961	14.5798	14.2661	12.986	12.2632	8.5542	8.2964
Vapor Space Volume (cu ft):	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261
Vapor Density (lb/cu ft):	0.0005	0.0005	0.0006	0.0006	0.0007	0.0008	0.0008	0.0008	0.0007	0.0007	0.0006	0.0005
Vapor Space Expansion Factor	0.0254	0.0264	0.0222	0.0243	0.0268	0.0281	0.028	0.0277	0.0278	0.0277	0.0218	0.0229
Vented Vapor Saturation Factor	0.8202	0.8155	0.7953	0.7747	0.7523	0.7312	0.7166	0.7197	0.739	0.7631	0.7844	0.8004
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261	28382.3261
Tank Diameter (ft)	35	35	35	35	35	35	35	35	35	35	35	35
Vapor Space Outage (ft)	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
Tank Shell Height (ft)	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
Average Liquid Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone	Cone
Roof Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft)	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Vapor Density												
Vapor Density (lb/cu ft)	0.0005	0.0005	0.0006	0.0006	0.0007	0.0008	0.0008	0.0008	0.0007	0.0007	0.0006	0.0005
Vapor Molecular Weight (lb/lb-mole)	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.1402	0.1447	0.1636	0.1860	0.2106	0.2351	0.2530	0.2491	0.2259	0.1986	0.1758	0.1506
Daily Avg. Liquid Surface Temperature (deg R)	493.6963	494.7743	499.0203	503.5303	507.9743	511.9783	514.6843	514.1123	510.5263	505.6623	501.5503	496.1603
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492
Tank Paint Solar Absorbance (Shell)	0	0	0	0	0	0	0	0	0	0	0	0
Tank Paint Solar Absorbance (Roof)	0	0	0	0	0	0	0	0	0	0	0	0
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	883.0387	1221.4895	1492.4331	1767.1939	1931.5393	1909.9654	1693.9809	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0254	0.0264	0.0222	0.0243	0.0268	0.0281	0.028	0.0277	0.0278	0.0277	0.0218	0.0229

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.1402	0.1447	0.1636	0.186	0.2106	0.2351	0.253	0.2491	0.2259	0.1986	0.1758	0.1506
Daily Avg Liquid Surface Temperature (deg R):	493.6963	494.7743	499.0203	503.5303	507.9743	511.9783	514.6843	514.1123	510.5263	505.8623	501.5503	496.1603
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.8202	0.8155	0.7963	0.7747	0.7523	0.7312	0.7166	0.7197	0.739	0.7631	0.7844	0.8094
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1402	0.1447	0.1636	0.186	0.2106	0.2351	0.253	0.2491	0.2259	0.1986	0.1758	0.1506
Vapor Space Outage (ft):	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
Working Losses - Fixed Roof Tanks (lb):	**12.8819**	**13.2948**	**15.0342**	**17.0927**	**19.3534**	**21.6054**	**23.2513**	**22.8947**	**20.7641**	**18.2489**	**16.1609**	**13.8424**
Vapor Molecular Weight (lb/lb-mole):	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1402	0.1447	0.1636	0.1860	0.2106	0.2351	0.2530	0.2491	0.2259	0.1986	0.1758	0.1506
Net Throughput (gal/mo):	214,200.00	214,200.00	214,200.00	214,200.00	214,200.00	214,200.00	214,200.00	214,200.00	214,200.00	214,200.00	214,200.00	214,200.00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	35	35	35	35	35	35	35	35	35	35	35	35
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	21.6090	21.7109	23.6049	27.0180	31.7005	35.1015	37.8311	37.1608	33.7501	30.5121	24.7151	22.1388

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: 31
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
PCW - 99/1	132.4281	214.4247	0.0000	0.0000	0.0000	0.0000	346.8528

ATTACHMENT 1 - TANK REPORTS
ONLY USING PTE DATA [2020 PTE]
BUCKEYE AIR EMISSIONS INVENTORY
South Portland Terminal (SPTPM)
Tank Identification and Physical Characteristics
Reporting Period (January 2019 to December 2019)

Tank: A9
South Portland Terminal (SPTPM)

Identification	
Tank Name	A9
Configuration	HMT IMPORT
City	South Portland
State	ME
Type of Tank	Horizontal Tank
Description	

Tank Dimensions	
Shell Height/Length (ft):	0
Diameter (ft):	0
Volume (gallons):	575.4
No. of Columns:	0
Eff. Col. Diam (ft):	1

Shell Characteristics	
Internal Shell Condition:	
Shell Color/Shade:	
Shell/Paint Condition:	/

Roof Characteristics	
Roof Condition:	
Roof Color/Shade:	
Type:	
Fitting Category:	

Deck Characteristics	
Deck Fitting Category:	
Deck Type:	
Construction:	
Deck Seam:	(Length: 0 ft)

Tank Construction and Rim-Seal System	
Construction:	
Primary Seal:	
Secondary Seal:	

Breather Settings	
Vacuum Settings (psia):	-0.03
Pressure Settings (psia):	0.03

Tank Options	
Is Tank Heated?	No
Is Tank Underground?	No
Self Supp. Roof?:	No

		Roof Fitting Loss Factors			
Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph^n))	m	Fitting Loss Factor (lb/lb-mole)

1. Meteorological Data used in Emissions Calculations: Portland, ME (Avg Atmospheric Pressure = 14.6685 psia)

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank: A9
South Portland Terminal (SPTPM)

Mixture/Component	Tank Paint Condition	Month	Daily Liquid Surface Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fraction	Vapor Mass Fraction	Molecular Weight	Basis for Vapor Pressure Calculations
			Avg	Min	Max		Avg	Min	Max					
Gasoline Additive		Jan	34.03	30.62	37.43	44.38	0.00544	0.00471	0.00628	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Feb	35.1	31.58	38.63	44.38	0.0057	0.00491	0.0066	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Mar	39.35	36.31	42.39	44.38	0.0068	0.00599	0.00771	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Apr	43.86	40.58	47.14	44.38	0.00819	0.00716	0.00935	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		May	48.3	44.74	51.87	44.38	0.00979	0.00849	0.01128	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Jun	52.31	48.6	56.02	44.38	0.01148	0.00991	0.01327	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Jul	55.01	51.32	58.7	44.38	0.01276	0.01104	0.01472	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Aug	54.44	50.79	58.1	44.38	0.01248	0.01081	0.01438	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Sep	50.86	47.18	54.53	44.38	0.01084	0.00936	0.01252	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Oct	46.19	42.52	49.86	44.38	0.009	0.00775	0.01042	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Nov	41.88	38.89	44.87	44.38	0.00755	0.00668	0.00853	130			188	RVP:0 A:15.672 B:10310.88
Gasoline Additive		Dec	36.49	33.38	39.6	44.38	0.00604	0.0053	0.00688	130			188	RVP:0 A:15.672 B:10310.88

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank: A9
South Portland Terminal (SPTPM)

Month:	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Rim Seal Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor A (lb-mole/ft-yr):	0	0	0	0	0	0	0	0	0	0	0	0
Seal Factor B (lb-mole/ft-yr (mpg'n):	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph)	0	0	0	0	0	0	0	0	0	0	0	0
Seal-related Wind Speed Exponent	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0.0054	0.0057	0.0068	0.0082	0.0093	0.0115	0.0128	0.0125	0.0108	0.009	0.0076	0.006
Vapor Pressure at Daily Average Liquid Surage Temperature (psia)	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Molecular Weight (lb/lb-mole)	1	1	1	1	1	1	1	1	1	1	1	1
Product Factor:												
Withdrawl Losses - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Net Throughput (gal/mo):	575	575	575	575	575	575	575	575	575	575	575	575
Shell Clingage Factor (bbl/1000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Organic Liquid Density (lb/gal):	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24
Number of Fixed Roof Columns:	0	0	0	0	0	0	0	0	0	0	0	0
Effective Column Diameter (ft):	1	1	1	1	1	1	1	1	1	1	1	1
Tank Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Fitting Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Value of Vapor Pressure Function:	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Roof Fitting Loss Factors (lb-mole/yr)	0	0	0	0	0	0	0	0	0	0	0	0
Average Wind Speed (mph):												
Deck Seeam Losses[1] - Floating Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr)	0	0	0	0	0	0	0	0	0	0	0	0
Deck Seam Length Factor (ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Standing Losses[1] - Fixed Roof Tanks (lb):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density (lb/cu ft)	0.0001	0.0001	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0001
Vapor Space Expansion Factor:	0.0245	0.0254	0.0219	0.0238	0.0257	0.0267	0.0268	0.0263	0.0264	0.0264	0.0215	0.0224
Vented Vapor Saturation Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Tank Vapor Space Volume	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Volume (cu ft)	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Shell Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Average Liquid Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Outage (ft)												
Roof Outage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roof Outage (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Roof Slope (ft/ft):	0	0	0	0	0	0	0	0	0	0	0	0
Shell Radius (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0001
Vapor Molecular Weight (lb/lb-mole)	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temp (psia)	0.0054	0.0057	0.0068	0.0082	0.0093	0.0115	0.0128	0.0125	0.0108	0.0090	0.0076	0.0060
Daily Avg. Liquid Surface Temperature (deg R)	493.6963	494.7743	499.0203	503.5303	507.9743	511.9783	514.6843	514.1123	510.5263	505.8623	501.5503	496.1603
Ideal Gas Constant R (psia cuft/(lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg R)	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492	504.0492
Tank Paint Solar Absorbance (Shell):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Paint Solar Absorbance (Roof):	0	0	0	0	0	0	0	0	0	0	0	0
Daily Total Solar Insulation Factor (Btu/sqft/day)	597.1021	688.0357	1221.4895	1492.4331	1767.1939	1931.5393	1909.9654	1668.9509	1343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0245	0.0254	0.0219	0.0238	0.0257	0.0267	0.0268	0.0263	0.0264	0.0264	0.0215	0.0224

Daily Vapor Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Breather Vent Pressure Setting Range (psia):	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Vapor Pressure at Daily Avg Liquid Surface Temperature (psia):	0.0054	0.0057	0.0058	0.0062	0.0098	0.0115	0.0128	0.0125	0.0108	0.009	0.0076	0.006
Daily Avg Liquid Surface Temperature (deg R):	493.6963	494.7743	499.0203	503.5303	507.9743	511.9783	514.6843	514.1123	510.5263	505.8623	501.5503	496.1603
Daily Ambient Temperature Range (deg R):	18.9	19.6	16.9	18.2	19.8	20.6	20.5	20.3	20.4	20.4	16.6	17.3
Vented Vapor Saturation Factor												
Vented Vapor Saturdation Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0054	0.0057	0.0058	0.0062	0.0098	0.0115	0.0128	0.0125	0.0108	0.009	0.0076	0.006
Vapor Space Outage (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Losses - Fixed Roof Tanks (lb):	**0.0097**	**0.0101**	**0.0121**	**0.0146**	**0.0174**	**0.0204**	**0.0227**	**0.0222**	**0.0193**	**0.016**	**0.0134**	**0.0108**
Vapor Molecular Weight (lb/lb-mole):	130	130	130	130	130	130	130	130	130	130	130	130
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0054	0.0057	0.0058	0.0062	0.0098	0.0115	0.0128	0.0125	0.0108	0.0090	0.0076	0.0060
Net Throughput (gal/mo):	575.00	575.00	575.00	575.00	575.00	575.00	575.00	575.00	575.00	575.00	575.00	575.00
Turnovers:	0	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Maximum Liquid Volume (gal):	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Liquid Height (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Tank Diameter (ft):	0	0	0	0	0	0	0	0	0	0	0	0
Working Loss Product Factor:	1	1	1	1	1	1	1	1	1	1	1	1
Total Losses (lb):	0.0097	0.0101	0.0121	0.0146	0.0174	0.0204	0.0227	0.0222	0.0193	0.0160	0.0134	0.0108

1. Tanks that have multiple throughputs for the same month have been averaged for any AP-42 calculation that calculates over a monthly period.

BUCKEYE AIR EMISSIONS INVENTORY
Emissions Report - Detail Format
Tank Emission Totals

Tank: A9
South Portland Terminal (SPTPM)

	Fixed Roof Losses (lbs)		Floating Roof Losses (lbs)				
Component	Standing Loss	Working Loss	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline Additive	0.0000	0.1658	0.0000	0.0000	0.0000	0.0000	0.1658

BUCKEYE SOUTH PORTLAND TERMINAL, LLC
S PORTLAND TERMINAL

TRUCK RACK AND VRU
PTE EMISSIONS

GASOLINE LOADING

Loading Loss Type	Gallons Loaded	Control Efficiency mg/L	Conversion Factor	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
Vapor Collection Unit (Fugitives)	500,000,000	8	8.34E-06	33,360	16.68
Vapor Recovery Unit (VRU	500,000,000	10	8.34E-06	41,700	20.85
				75,060	37.53

DISTILLATE LOADING

Loading Loss Type	Gallons Loaded	Molecular Wght of Vapors (lb/lb-mole)	True Vapor Pressure (psia) @46 F	Temp of Product R(F + 460)	Saturation Factor	Reduction Efficiency Term	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
Vapor Collection Unit (Fugitives)	360,000,000	130	0.004	506	0.6	1	2,766	1.38
Top Loaded	120,000,000	130	0.004	506	0.6	1	922	0.46
							3,688	1.84

Notes:

1. VOC Emissions calculated from EPA's AP-42 method (Chapter 5.2 Transportation and Marketing of Petroleum Liquids - Equation 1: L=12.46(SPM)/T).
2. All vapors generated from gasoline, diesel, jet, ethanol and transmix loading were controlled by the VRU.
3. Control efficiency for vapor collection unit is 9 mg/L (99.27%) - per September 1995 Gasoline Distribution MACT settlement agreement between EPA and API.
4. Control efficiency for vapor recovery unit is 1.88 mg/L (assume 5 mg/L per permit)
5. All gasoline loading includes gasoline, ethanol, and gasoline additive gallons as total throughput.
6. All jet fuel loading includes jet fuel and jet fuel additive gallons as total throughput.

BUCKEYE SOUTH PORTLAND TERMINAL, LI FUGITIVES
S PORTLAND TERMINAL

Process Piping - Liquid Service				
Equipment Type	Emissions Factor[1] (lb/component-day)	Number of Components	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
Valves	0.00228	420	350	0.17
Pumps	0.02857	25	261	0.13
Flanges	0.00042	1157	177	0.09
Other	0.00688	30	75	0.04
Total:			863	0.43
Process Piping - Vapor Service				
Equipment Type	Emissions Factor[1] (lb/component-day)	Number of Components	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
Valves	0.0006878	12	3	0.00
Pumps	0.003439	0	0	0.00
Connectors	0.002222	31	25	0.01
Loading Arms	0.006349	5	12	0.01
Total:			40	0.02

Notes:

1. Factors determined from EPA Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017), Nov. 1995.
2. Equipment compronent count estimated from site drawings and not from actual field survey.

VCU Combustion Emissions:

Combustion Emissions	Gasoline Vapor: Gallons of Vapor Loaded*	Gasoline Vapor: Emission Factor ** (lbs/gal)	Total Emissions (lbs/year)	Total Emissions (tons/year)
NOx	446,429	0.0334	14,910.71	7.46
CO	446,429	0.0834	37,232.14	18.62
SO2	446,429	0.001136	507.14	0.25
PM	446,429	0.0020	892.86	0.45
CO2	446,429	22.3	9,955,357.14	4,977.68

Emissions were caluclated assuming the vapors being combusted are distillate vapors to be conservative. Therefore emission factors from AP-42 for Number 2 Fuel Oil were used.

* Liquid Loaded is based on the permitted annual gasoline throughput of 500,000,000 gal/year

* Gallons of Vapor Loaded = Uncontrolled Emissions / Density = ((1000 Gallons of Liquid Loaded per year) * (5 lbs of Vapor / 1000 Gallons of Liquid Loaded)) / (5.6 lb/gal). Uncontrolled Emission Factor of 5 lbs of Vapor /1000 Gallons of Liquid Loaded from Table 5.2-5 in AP-42 for Submerged Loading - Dedicated Normal Service. Density of gasoline from Table 7.1-2 in AP-42 for Gasoline.

** VCU Vapor Combustion Emission Factors for SO2, PM, and CO2 are distillate emission factors from AP-42 Figures 1.3-1 and 1.3-12 and Emission Factors for NOx and CO are from PVCU Manufacturer John Zink. Emission factors from both the manufacturer and AP-42 Chapter 1 for No 2 Fuel Oil were reviewed. The higher emission factor of the 2 sources were used for the calculations to be conservative. For NOx and CO, the John Zink provided emission factor was higher than AP-42. For SO2, PM and CO2, the AP-42 emission factor was higher than the John Zink emission factor.

VOC Emissions	Gasoline Vapor: 1000 Gallons of Liquid Loaded	Gasoline Vapor: Emission Factor ** (lbs/1000 gal)	Total Emissions (lbs/year)	Total Emissions (tons/year)
VOC	No change			

* VOC emissions are included with VRU. Both have an emission limit of 10 mg/L of liquid loaded therefore there are no changes to VOC emissions.

VCU Pilot Combustion Emissions (as Propane):

Combustion Emissions	Propane Pilot Gas		Total Emissions (lbs/year)	Total Emissions (lbs/hour)	Total Emissions (tons/year)
	50 Gallons*	Emission Factor** (lbs/1000 gal)			
NOx	18.25	13	237.25	0.11	**0.12**
CO	18.25	7.5	136.88	0.06	**0.07**
SO2	18.25	0.2	3.65	0.002	**0.00**
PM	18.25	0.7	12.78	0.006	**0.01**
CO2	18.25	12500	228,125.00	105.61	**114.06**

*** Volume combusted assumes 50 gallons/day for 365 days. This is based on the manufacturer's expected max Pilot Gas flow rate of 1 scfm (50 gal/day) propane.**

**** Pilot gas combustion Emission Factors are from AP-42 Table 1.5-1.**

Total Emissions (Loading and Pilot Gas)*

Combustion Emissions	Total Emissions (lbs/year)	tons/year
NOx	15147.96	7.57
CO	37369.02	18.68
SO2	510.79	0.26
PM	905.63	0.45
CO2	10183482.14	5091.74
GHG	10183482.14	5091.74

*This table provides the total emissions from both the vapors from loading and the pilot gas and is therefore the total potential emissons from the VCU.

VCU Pilot Combustion Emissions (as Natural Gas):

Combustion Emissions	Natural Gas Pilot Gas 10^6 scf	Emission Factor** (lbs/10^6 scf)	Total Emissions (lbs/year)	Total Emissions (lbs/hour)	Total Emissions (tons/year)
NOx	0.95	100	94.61	0.04	**0.05**
CO	0.95	84	79.47	0.04	**0.04**
SO2	0.95	0.6	0.57	0.000	**0.00**
PM	0.95	7.6	7.19	0.003	**0.00**
CO2	0.95	120,000	113,529.60	52.56	**56.76**

*** Volume combusted 108 scfh of natural gas.**

**** Pilot gas combustion Emission Factors are from AP-42 Table 1.4-1 and Table 1.4-2.**

Total Emissions (Loading and Pilot Gas)*

Combustion Emissions	Total Emissions (lbs/year)	tons/year
NOx	**15005.32**	**7.50**
CO	**37311.61**	**18.66**
SO2	**507.71**	**0.25**
PM	**900.05**	**0.45**
CO2	**10068886.74**	**5034.44**
GHG	**10068886.74**	**5034.44**

*This table provides the total emissions from both the vapors from loading and the pilot gas and is therefore the total potential emissons from the VCU.

Fuel Combustion Emissions

Combustion Sources:

Unit ID	Product	Source	Gal/yr* (Liquid)	SCF/yr (Gas)	Liters/year (Gas)	MMBTU/yr
NA	Distillate	Garage Boiler 1	7,500			0.35
NA	Distillate	Garage Boiler 2	7,500			0.35
NA	Distillate	Office Boiler 1	7,500			0.28
NA	Distillate	Pipeline Boiler	7,500			0.64

* Based on a review of past actual fuel usage.

Distillate Combustion Emissions:

	Combustion Emissions								
Pollutant	PM	SOx	NOx	VOC	CO	CH4	N2O	CO2	GHG**
Emission Factor - lb/1000 gal*	2.00	52.54	20.00	0.20	5.00	0.22	0.26	2.2E+04	(CH4*25)+(N2O*298)+(CO2*1)
lb/yr	60.00	1576.20	600.00	6.00	150.00	6.48	7.80	669000.00	671,486.40
tons/yr	0.03	0.79	0.30	0.00	0.08	0.00	0.00	334.50	335.74

* Emission factors used to estimate emissions are from AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume I. SOx, Nox, CO, and PM Emission Factors are from Table 1.3-1. VOC Emission Factor is from Table 1.3-3. CO2 Emission Factor is from Table 1.3-12.
** GHG Emission calculated by using the CO2 Equivalency Factor for CO2 (1) and CO (3.7).

Example calculation (using SOx):
= gal/yr / 1000 gal * Emission Factor
= 590 gal/yr / 1000 gal * 52.54 lb/1000 gal (SOx)
= 31.00 lb/yr

Natural Gas Combustion Emissions*:

	Combustion Emissions								
Pollutant	PM	SOx	NOx	VOC	CO	CH4	N2O	CO2	GHG***
Emission Factor - lb / MM BTU**	0.0075	0.00059	0.098	0.0054	0.082	0.002	0.002	117.647	(CH4*25)+(N2O*298)+(CO2*1)
lb/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Total emissions from natural gas combustion include emissions from the combustion of natural gas in furnaces and boilers and emissions from the combustion of natural gas used as assist gas in the VCUs.
** Emission factors used to estimate emissions are from AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume I, Tables 1.4-1, 1.4-2, and 1.4-3, except for GHG.
*** GHG Emission calculated by using the CO2 Equivalency Factor for CO2 (1) and CO (3.7).

Example Calculation (using SOx):
= Total Natural Gas Used * Emission Factor
= Total Natural Gas Used (0) MMBTU/yr * 0.00059 lb / MM BTU
= 458 lb/yr

Total of Combustion Sources

Pollutant	PM	PM10	SOx	NOx	VOC	CH4	CO	CO2	GHG
lb/yr	60.00	1,576.20	600.00	6.00	150.00	6.48	7.80	669,000.00	671,486.40
tons/yr	0.03	0.79	0.30	0.00	0.08	0.00	0.00	334.50	335.74