



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

6/23/2015

Certified Mail

Jan Barnes
Cambridge TRANSFLO Terminal Services, Inc.
500 Water Street; J975
Jacksonville, FL 32202

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0630015017
Permit Number: P0117028
Permit Type: Initial Installation
County: Guernsey

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: Ohio EPA-SEDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Cambridge TRANSFLO Terminal Services, Inc.**

Facility ID:	0630015017
Permit Number:	P0117028
Permit Type:	Initial Installation
Issued:	6/23/2015
Effective:	6/23/2015
Expiration:	6/23/2025



Division of Air Pollution Control
Permit-to-Install and Operate
for
Cambridge TRANSFLO Terminal Services, Inc.

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	4
2. Who is responsible for complying with this permit?	4
3. What records must I keep under this permit?	4
4. What are my permit fees and when do I pay them?.....	4
5. When does my PTIO expire, and when do I need to submit my renewal application?	4
6. What happens to this permit if my project is delayed or I do not install or modify my source?	5
7. What reports must I submit under this permit?	5
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?	5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?	6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?	6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently?	6
13. Can I transfer this permit to a new owner or operator?.....	7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?	7
15. What happens if a portion of this permit is determined to be invalid?	7
B. Facility-Wide Terms and Conditions.....	8
C. Emissions Unit Terms and Conditions	10
1. F001, Ammonium Nitrate Transfer	11
2. J001, Liquid Unloading.....	15
3. J002, HCl transfer	21
4. P001, Blower Pack.....	25
5. P901, Frac Sand Transfer	29
6. P902, Solid Material Transfer.....	34
7. P903, MasterVac	39



Final Permit-to-Install and Operate
Cambridge TRANSFLO Terminal Services, Inc.
Permit Number: P0117028
Facility ID: 0630015017
Effective Date: 6/23/2015

Authorization

Facility ID: 0630015017
Application Number(s): A0050987, A0051745, A0052354, A0052523
Permit Number: P0117028
Permit Description: Initial PTIO for a material transloading facility located in Cambridge, Ohio. Facility has requested old BAT.
Permit Type: Initial Installation
Permit Fee: \$1,200.00
Issue Date: 6/23/2015
Effective Date: 6/23/2015
Expiration Date: 6/23/2025
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Cambridge TRANSFLO Terminal Services, Inc.
850 Woodlawn Avenue
Cambridge, OH 43725

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0117028
 Permit Description: Initial PTIO for a material transloading facility located in Cambridge, Ohio. Facility has requested old BAT.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	F001
Company Equipment ID:	Ammonium Nitrate Transfer
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	J001
Company Equipment ID:	Liquid Unloading
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	J002
Company Equipment ID:	HCl transfer
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P001
Company Equipment ID:	Blower Pack
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P901
Company Equipment ID:	Frac Sand Transfer
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P902
Company Equipment ID:	Solid Material Transfer
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P903
Company Equipment ID:	MasterVac
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
Cambridge TRANSFLO Terminal Services, Inc.
Permit Number: P0117028
Facility ID: 0630015017
Effective Date: 6/23/2015

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



Final Permit-to-Install and Operate
Cambridge TRANSFLO Terminal Services, Inc.
Permit Number: P0117028
Facility ID: 0630015017
Effective Date: 6/23/2015

B. Facility-Wide Terms and Conditions



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.



Final Permit-to-Install and Operate
Cambridge TRANSFLO Terminal Services, Inc.
Permit Number: P0117028
Facility ID: 0630015017
Effective Date: 6/23/2015

C. Emissions Unit Terms and Conditions



1. F001, Ammonium Nitrate Transfer

Operations, Property and/or Equipment Description:

Ammonium nitrate transfer consisting of a drop point from the rail car into a pit to a covered bucket elevator, a drop point into the fully enclosed silo with no bin vents, and load-out to trucks using a boot to minimize emissions; maximum hourly truck loading rate of 48 tons/hour, maximum rail unload to silo of 35 tons per hour, and maximum annual throughput of 306,600 tons per year.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 6/30/2008	Develop and implement a site-specific work practice plan designed as described in paragraph d)(1) below to minimize or eliminate fugitive dust emissions. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) , as effective 6/30/2008	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions(PE) from this air contaminant source since the potential to emit for PE is less than 10 tons/yr. See b)(2)b.
c.	OAC rule 3745-17-08(B)	This facility is not located in an area



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-07(B)	identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions are exempt from the visible particulate emission limitation and the reasonably available control measures established in OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B), respectively.

(2) Additional Terms and Conditions

- a. This Best Available Control (BAT) emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These rule paragraphs apply once U.S. EPA approves OAC rule 3745-31-05(A)(3)(a) (the less than 10 tons per year BAT exemption) into the Ohio SIP.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Work Practice Plan

The permittee shall develop and implement a site-specific work practice plan designed to minimize or eliminate fugitive dust from this emissions unit. This work practice plan shall include, at a minimum, the following elements:

- a. An identification of each transfer point for which the plan applies.
- b. A determination of the frequency that each transfer point will be inspected to determine if additional control measures are needed.
- c. The identification of the record keeping form/record that will be used to track the visual inspection of the transfer operations. This form/record should include, at a minimum, the following elements:
 - i. Transfer point inspected;
 - ii. Date inspected;
 - iii. Result of the inspection (needs follow-up action or does not need follow-up action);
 - iv. Date corrective actions were taken, if not same day;

- v. Corrective actions taken to correct visible emissions (if observed);
 - vi. Name of employee who performed the inspection and can verify corrective actions were completed, if needed.
- d. A description of how and where the records shall be maintained.

The permittee shall begin using the Work Practice Plan within 30 days from the date Ohio EPA approved the initial plan. As needs warrant, the permittee can modify the Work Practice Plan. The permittee shall submit a copy of proposed revisions to the Work Practice Plan to the appropriate District Office or local air agency (DO/Laa) for review and approval. The permittee can begin using the revised Work Practice Plan once the appropriate DO/Laa has approved its use.

(2) Work Practice Plan Inspections

Except as otherwise provided in this section, the permittee shall perform inspections of the transfer operations at frequencies described in the Work Practice Plan. The purpose of the inspections is to determine the need for taking corrective actions during material transfer operations. The inspections shall be performed during representative conditions.

(3) Work Practice Plan Record Keeping

The permittee shall maintain records of the following information:

- a. The records required to be collected under the Work Practice Plan, and
- b. The date and reason any element of the Work Practice Plan was not implemented.

The permittee shall maintain these records in accordance to the Standard Terms and Conditions of Part I of this permit.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) Within 30 days from the final issuance of this permit, the permittee shall submit their proposed Work Practice Plan to the appropriate DO/Laa.
- (4) The permittee shall submit annual deviation reports concerning any failure to implement the Work Practice Plan. These reports shall be submitted as part of the annual Permit Evaluation Report (PER).



f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. None.

g) Miscellaneous Requirements

(1) None.



2. J001, Liquid Unloading

Operations, Property and/or Equipment Description:

Rail car unloading of VOC laden liquids into tank trucks: liquids with a vapor pressure greater than or equal to 0.9 psia are controlled by vapor balance system (98.7% capture and 95% control) and have a maximum pump rate of 400 gallons per minute. Liquids with a vapor pressure less than 0.9 psia are not required to employ the vapor balance system and have a maximum pump rate of 150 gallons per minute.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. g)(1)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) ORC 3704.03(T)	Volatile organic compound (VOC) emissions shall not exceed 18.25 lbs/hr and 79.94 tons per year.

(2) Additional Terms and Conditions

a. This emissions unit is a source of Hazardous Air Pollutant (HAP) emissions which are inherently limited to 3.79 tons per year pursuant to the VOC emissions limitation found in b)(1)a. above and the operational restrictions found in c)(1)-(4) below.

c) Operational Restrictions

- (1) The permittee shall operate and maintain vapor balance transfer equipment with a minimum capture efficiency of 98.7% and a minimum control efficiency of 95% in accordance with the manufacturer's specifications or site specific operational practices at all times during the transfer of materials through this emissions unit that have a VOC or HAP partial pressure of 0.9 psia or greater. Vapor balance is not required for materials that have a VOC or HAP partial pressure of less than 0.9 psia.
- (2) For any transfer of VOC or HAP containing liquid with a partial pressure of 0.9 psia or greater, the vapors displaced from the delivery vessel or the railcar that is loaded shall be processed by a vapor balance system with a vapor tight vapor line to the delivery vessel or the rail car being unloaded. A visual check shall be performed to assure that the vapor line is connected before the material is transferred. The vapor balance system shall be designed and operated to route at least 95 percent by weight of the VOC in the displaced vapors to the receiving vessel.
- (3) The permittee shall abide by the following operational practices when using vapor balance controls for liquid material transfer operations:
 - a. The vapor balance system shall be kept in good working order and shall be used at all times during the transfer of VOC or HAP containing liquid with a partial pressure of 0.9 psia or greater.
 - b. The delivery vessel hatches shall be closed at all times during the loading of the delivery vessel.
 - c. There shall be no observable leaks (i.e., by sensory evaluation / inspection) in the delivery vessel pressure/vacuum relief valves and hatch covers.
 - d. There shall be no observable leaks in the vapor and liquid lines during the transfer of VOC or HAP containing liquid with a partial pressure of 0.9 psia or greater.

Should such a leak be observed, the permittee shall suspend transfer operations as soon as practical, and correct the situation prior to resuming operations.
- (4) The permittee shall not permit transferred liquids to be spilled, discarded into sewers, stored in open containers, or handled in any other manner that would result in evaporation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform monthly inspections of the vapor balance transfer equipment to identify any operating problems that need to be fixed. The permittee shall maintain a record of any operating problems identified and corrective actions that were taken to fix the problem.

- (2) The permittee shall maintain daily records of the following:
- The name of each liquid transferred;
 - The partial pressure, in psia, of each liquid transferred;
 - If vapor balance is employed or not;
 - The throughput of each liquid transferred, in gallons.
- (3) If the permittee transfers gasoline through this emissions unit the following monitoring and recordkeeping requirements apply:

The permittee shall monitor all potential sources of vapor leaks from the terminal's vapor collection system and vapor control system while a gasoline tank truck is being loaded. Where vapor leaks are determined to be equal to or greater than 100 percent of the lower explosive limit as propane, as determined under paragraph (K) of OAC rule 3745-21-10, the permittee shall maintain a record of the following information:

- the date the leak was detected;
- the findings of the inspection for the leak, which shall indicate the location, nature, and severity of the leak;
- the leak detection method;
- the corrective action(s) taken to repair each leak and the date of final repair;
- the reasons for any repair interval exceeding 15 calendar days (from the time of detection to the date of final repair) for each leak equal to or greater than one hundred per cent of the lower explosive limit as propane, as determined under paragraph (K) of OAC rule 3745-21-10; and
- the inspector's name and signature.

These records shall be retained and accessible for a period of 5 years.

e) Reporting Requirements

- The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- If the permittee transfers gasoline through this emissions unit the following reporting requirements apply:



Any leaks in the vapor balance system equal to or greater than 100 percent of the lower explosive limit as propane, as determined under paragraph (K) of OAC rule 3745-21-10 of the Administrative Code, that are not repaired within 15 days after identification, shall be reported to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days after the repair is completed. This report shall include the date the leak was detected and the date the leak was repaired.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitations:

VOC emissions shall not exceed 18.25 lbs/hr and 79.94 tons per year.

Applicable compliance Method:

The hourly emissions limitation was established using the following equation from AP 42, Fifth Edition, Volume I Chapter 5.2 (6/08) based on the transfer of heptane which the material with the greatest vapor pressure (i.e., closest to 0.9 psia) that is likely to be unloaded without vapor balance:

$$LL = 12.46 * SPM/T = 2.028 \text{ lbs}/1,000 \text{ gallons}$$

Where:

LL = Loading Loss lbs per 1,000 gallons of liquid loaded (lbs/10³ gallons)

S = Saturation Factor (1.00 from table 5.2-1 for submerged fill)

P = True vapor pressure of liquid loaded, pounds per square inch absolute (0.871 psia)

M = Molecular weight of vapors, (100.21 lbs/ lb-mole)

T = Temperature of bulk loaded liquid, R = (76.5°F + 460 = 536.5 R)

VOC lbs/hr = (2.028 lbs/1,000 gallons)*(9,000 gallons/hour) = 18.25 lbs/hr VOC emissions

If required, VOC emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.



Compliance with the annual emissions limitation may be demonstrated by the following calculation:

$$(18.25 \text{ lbs/hr VOC}) * (8,760 \text{ hours/year}) / (2,000 \text{ lbs/ton}) = 79.94 \text{ tons per year VOC emissions}$$

b. Emissions Limitation:

HAP emissions shall not exceed 3.79 tons per year.

Applicable compliance Method:

Compliance with the annual emissions limitation may be demonstrated using the following equation from AP 42, Fifth Edition, Volume I Chapter 5.2 (6/08) for natural gasoline:

$$LL = 12.46 * SPM/T = 9.55 \text{ lbs/1,000 gallons}$$

Where:

LL = Loading Loss lbs per 1,000 gallons of liquid loaded (lbs/10³ gallons)

S = Saturation Factor (1.00 from table 5.2-1 for vapor balance systems)

P = True vapor pressure of liquid loaded, pounds per square inch absolute (6.853 psia)

M = Molecular weight of vapors, (60 lbs/ lb-mole)

T = Temperature of bulk loaded liquid, R = (76.5°F + 460 = 536.5 R)

$$(9.55 \text{ lbs/1,000 gallons}) * (9,000 \text{ gallons/hour}) * (8,760 \text{ hrs/yr}) / (2,000 \text{ lbs/ton}) = 348.575 \text{ tons per year uncontrolled VOC emissions}$$

$$(348.575 \text{ tons/year}) * (1 - 98.7\% \text{ capture}) = 4.53 \text{ TPY fugitive}$$

$$(348.575 \text{ tons/year}) * (98.7\% \text{ capture}) * (1 - 95\% \text{ control}) = 17.20 \text{ TPY stack}$$

$$4.53 \text{ tons/year} + 17.20 \text{ tons/year} = 21.73 \text{ tons per year total controlled emissions}$$

$$(21.73 \text{ tons/year}) * (17.428\% \text{ HAP (as submitted in permittee's application)}) = 3.79 \text{ tons per year HAP emissions}$$

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because transfer operations are exempt from air toxic modeling in accordance with Ohio EPA's Engineering Guide 69 (see question 4.2), unless factors such as source size, tons of emissions, particle size, pre-existing concerns or proximity to other sources or citizen populations indicate that a modeling review is warranted. OAC Chapter 3745-31 requires permittees to apply for and obtain a



Final Permit-to-Install and Operate
Cambridge TRANSFLO Terminal Services, Inc.
Permit Number: P0117028
Facility ID: 0630015017
Effective Date: 6/23/2015

new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase may require the permittee to apply for and obtain a new FEPTIO.

3. J002, HCl transfer

Operations, Property and/or Equipment Description:

Hydrochloric acid transfer from rail cars to bottom load tank trucks and using a portable platform pump controlled by a wet scrubber with 100% capture and 99% control and a maximum throughput of 37,500 gallons per hour (900,000 gal/day).

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. g)(1)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 6/30/2008	Hydrochloric acid (HCl) emissions shall not exceed 0.082 pounds per hour and 0.36 tons per year.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall operate the wet scrubber at all times the emissions unit is in operation for the control of HCl emissions and shall maintain the wet scrubber in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modification deemed necessary by the permittee.

(2) In the event the wet scrubber is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed

necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

- (3) Emissions from the emissions unit shall be vented to a wet scrubber with a minimum of 100% capture efficiency and 99% control efficiency for HCl emissions.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the wet scrubber, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (2) The permittee shall conduct periodic inspections of the wet scrubber to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency, and it shall be made available to the Ohio EPA upon request.
- (3) In addition to the recommended periodic inspections, not less than once each calendar year, the permittee shall conduct a comprehensive inspection of the wet scrubber while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (4) The permittee shall document each inspection (periodic and annual) of the wet scrubber and shall maintain the following information:
 - a. The date of the inspection;
 - b. A description of each/any problem identified and the date it was corrected;
 - c. A description of any maintenance and repairs performed; and
 - d. The name of the person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (5) The permittee shall maintain records that document any time periods when the wet scrubber was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the scrubber was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.



e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

HCl emissions shall not exceed 0.082 pounds per hour and 0.36 ton per year.

Applicable Compliance Method:

Compliance with the hourly emissions limitation may be demonstrated by the following equation:

$$\frac{\text{(Emissions factor in lb/1,000 gallons)} * \text{(Maximum hourly throughput in gallons)}}{2,000 \text{ lbs/ton}}$$

Where:

Emissions factor = 0.00217 lb/1,000 gallons (test from similar facility, as submitted in permittee's application)

Maximum annual throughput = 37,500 gallons/hour

2,000 lbs/ton = conversion factor

Compliance with the annual emissions limitation may be demonstrated by the following equation:

$$\frac{\text{(Emissions factor in lb/1,000 gallons)} * \text{(Maximum annual throughput in gallons)}}{2,000 \text{ lbs/ton}}$$

Where:

Emissions factor = 0.00217 lb/1,000 gallons (test from similar facility, as submitted in permittee's application)

Maximum annual throughput = 328,500,000 gallons/year

2,000 lbs/ton = conversion factor

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because transfer operations are exempt from air toxic modeling in accordance with Ohio EPA's Engineering Guide 69 (see question 4.2), unless factors such as source size, tons of emissions, particle size, pre-existing concerns or proximity to other sources or citizen populations indicate that a modeling review is warranted. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase may require the permittee to apply for and obtain a new PTIO.



4. P001, Blower Pack

Operations, Property and/or Equipment Description:

Pneumatic transfer of solids from rail cars to tank trucks using Blower Pack with a maximum throughput of 40 tons per hour controlled by a baghouse with 100% capture and 99.9% control.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 0.17 pound per hour and 0.75 ton per year.
b.	OAC rule 3745-17-07(A)(1)(a)	Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)(2) (Figure 2, Equation c)	The emissions limitation established pursuant to this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) **Additional Terms and Conditions**

a. None.

c) Operational Restrictions

- (1) The permittee shall install and operate a baghouse with a minimum of 100% capture and 99.9% control, for the control of PE whenever this emissions unit is in operation and shall maintain the baghouse in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (2) In the event the baghouse is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual(s), with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the baghouse, along with the documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (3) The permittee shall conduct periodic inspections of the baghouse to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to Ohio EPA upon request.
- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the baghouse and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (5) The permittee shall document each inspection (periodic and annual) of the baghouse and shall maintain the following information:
 - a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date of the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (6) The permittee shall maintain records that document any time periods when the baghouse was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the baghouse was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to Ohio EPA upon request.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.



f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitations:

PE shall not exceed 0.17 pound per hour and 0.75 ton per year.

Applicable Compliance Method:

The hourly emissions limitation was established by the following calculation:

$$(0.01 \text{ gr PE/dscf}) \times (2,000 \text{ cfm}) \times (60 \text{ min/hr}) \times (1\text{lb}/7,000\text{gr}) = 0.17 \text{ pound/hour}$$

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Compliance with the annual emissions limitation may be demonstrated by the following calculation:

$$(0.17 \text{ lb/hr}) \times (8,760 \text{ hours/year}) / (2,000 \text{ pounds/ton}) = 0.75 \text{ ton/year}$$

b. Emissions Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six minute average, except as provided by rule.

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9.

g) Miscellaneous Requirements

(1) None.



5. P901, Frac Sand Transfer

Operations, Property and/or Equipment Description:

Frac sand transfer from rail to truck with a maximum throughput of 150 tons per hour; controlled by a baghouse with 90% capture and 99.4% control (0.01 gr/dscf at 2,000 cfm); Includes transfer of rail to conveyor, conveyor to truck (equipped with boot), both with a maximum hourly throughput of 150 tons/hr and conveyor return to collection bin with a maximum hourly throughput of 15 lbs/hr (3 total transfer points).

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the stack shall not exceed 0.17 pound per hour. PE shall not exceed 51.80 tons per year. Fugitive PE shall not exceed 20 percent opacity as a three-minute average.
b.	OAC rule 3745-17-07(A)(1)(a)	Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B) (Figure 2, equation (c))	This emissions limitation is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)	This facility is not located in an area



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-07(B)	identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions are exempt from the visible particulate emission limitation and the reasonably available control measures established in OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B), respectively.

- (2) Additional Terms and Conditions
 - a. None.
- c) Operational Restrictions
 - (1) The permittee shall install and operate a baghouse with a minimum capture efficiency of 90% and a minimum control efficiency of 99.4% for the control of PE whenever this emissions unit is in operation and shall maintain the baghouse in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
 - (2) In the event the baghouse is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual(s), with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and fugitive egress points serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended.

The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the baghouse, along with the documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (3) The permittee shall conduct periodic inspections of the baghouse to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to Ohio EPA upon request.
- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the baghouse and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (5) The permittee shall document each inspection (periodic and annual) of the baghouse and shall maintain the following information:
 - a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date of the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (6) The permittee shall maintain records that document any time periods when the baghouse was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the baghouse was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to Ohio EPA upon request.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

PE from the stack shall not exceed 0.17 pound per hour.

Applicable Compliance Method:

This emissions limitation was established by the following calculation:

$$(0.01 \text{ gr/dscf}) * (2,000 \text{ acfm}) * (60 \text{ min/hr}) / (7,000 \text{ gr/lb}) = 0.17 \text{ pound per hour}$$

If required, PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emissions Limitation:

Fugitive PE shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9.

c. Emissions Limitation:

PE shall not exceed 51.80 tons per year.

Applicable Compliance Method:

Compliance with this emissions limitation may be demonstrated by the following calculation using the drop equation found in AP 42 13.2.4 (11/06):

$$E = k(0.0032)(U/5)^{1.3} / (M/2)^{1.4}$$



Where,

k = 0.74 constant

U = 9 mph average wind speed

M = 0.1% moisture

Therefore, E = 0.33704 lb/ton

$$[((0.33704 \text{ lb/ton}) \cdot (2 \text{ transfer points}) \cdot (150 \text{ tons/hr}) \cdot (1-90\% \text{ capture})) + ((0.33704 \text{ lb/ton}) \cdot (1 \text{ transfer points}) \cdot (0.0075 \text{ ton/hr}) \cdot (1-90\% \text{ capture})) + ((0.01 \text{ gr/dscf}) \cdot (2,000 \text{ acfm}) \cdot (60 \text{ min/hr}) / (7,000 \text{ gr/lb}))] \cdot (8,760 \text{ hrs/yr}) / (2,000 \text{ lbs/ton}) = 51.80 \text{ tons PE/year}$$

d. Emissions Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six minute average, except as provided by rule.

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9.

g) Miscellaneous Requirements

(1) None.

6. P902, Solid Material Transfer

Operations, Property and/or Equipment Description:

Solid material transfer using covered conveyors under negative pressure with maximum throughput of 50 tons per hour; controlled by a baghouse with 90% capture and 99.4% control; Includes transfer of rail to conveyor, conveyor to truck (equipped with boot), both with a maximum hourly throughput of 50 tons/hr and conveyor return to collection bin with a maximum hourly throughput of 15 lbs/hr (3 total transfer points).

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the stack shall not exceed 0.17 pound per hour. PE shall not exceed 15.51 tons per year. Fugitive PE shall not exceed 20 percent opacity as a three-minute average.
b.	OAC rule 3745-17-07(A)(1)(a)	Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B) (Figure 2, Equation (c))	This emissions limitation is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)	This facility is not located in an area



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-07(B)	identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust emissions are exempt from the visible particulate emission limitation and the reasonably available control measures established in OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B), respectively.

- (2) Additional Terms and Conditions
 - a. None.
- c) Operational Restrictions
 - (1) The permittee shall install and operate a baghouse with a minimum capture efficiency of 90% and a minimum control efficiency of 99.4% for the control of PE whenever this emissions unit is in operation and shall maintain the baghouse in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
 - (2) In the event the baghouse is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual(s), with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and fugitive egress points serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended.

The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the baghouse, along with the documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (3) The permittee shall conduct periodic inspections of the baghouse to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to Ohio EPA upon request.
- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the baghouse and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (5) The permittee shall document each inspection (periodic and annual) of the baghouse and shall maintain the following information:
 - a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date of the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (6) The permittee shall maintain records that document any time periods when the baghouse was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the baghouse was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to Ohio EPA upon request.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

PE from the stack shall not exceed 0.17 pound per hour.

Applicable Compliance Method:

This emissions limitation was established by the following calculation:

$$(0.01 \text{ gr/dscf}) \times (2,000 \text{ acfm}) \times (60 \text{ min/hr}) / (7,000 \text{ gr/lb}) = 0.17 \text{ pound per hour}$$

If required, PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emissions Limitation:

Fugitive PE shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9.

c. Emissions Limitation:

PE shall not exceed 15.51 tons per year.

Applicable Compliance Method:

Compliance with this emissions limitation may be demonstrated by the following calculation using the drop equation found in AP 42 13.2.4 (11/06):

$$E = k(0.0032)(U/5)^{1.3}/(M/2)^{1.4}$$



Where,

$k = 0.74$ constant

$U = 9$ mph average wind speed

$M = 0.1\%$ moisture

Therefore, $E = 0.33704$ lb/ton

$$[((0.33704 \text{ lb/ton}) \cdot (2 \text{ transfer points}) \cdot (50 \text{ tons/hr}) \cdot (1-90\% \text{ capture})) + ((0.33704 \text{ lb/ton}) \cdot (1 \text{ transfer points}) \cdot (0.0075 \text{ tons/hr}) \cdot (1-90\% \text{ capture})) + ((0.01 \text{ gr/dscf}) \cdot (2,000 \text{ acfm}) \cdot (60 \text{ min/hr}) / (7,000 \text{ gr/lb}))] \cdot (8,760 \text{ hrs/yr}) / (2,000 \text{ lbs/ton}) = 15.51 \text{ tons PE/year}$$

d. Emissions Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six minute average, except as provided by rule.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

g) Miscellaneous Requirements

(1) None.



7. P903, MasterVac

Operations, Property and/or Equipment Description:

Pneumatic transfer of plastics using MasterVac; maximum throughput of 40 tons per hour controlled by a baghouse with 90% capture and 99% control.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from the stack shall not exceed 0.29 pound per hour. PE shall not exceed 15.28 tons per year. Fugitive PE shall not exceed 20 percent opacity as a three-minute average.
b.	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a 6 minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B) (Figure 2, equation (b))	The emissions limitation established pursuant to this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B) OAC rule 3745-17-07(B)	This facility is not located in an area identified in Appendix A of OAC rule 3745-17-08. Therefore, the fugitive dust



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		emissions are exempt from the visible particulate emission limitation and the reasonably available control measures established in OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B), respectively.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall install and operate a baghouse with a minimum capture efficiency of 90% and a minimum control efficiency of 99% for the control of PE whenever this emissions unit is in operation and shall maintain the baghouse in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

(2) In the event the baghouse is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual(s), with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and fugitive egress points serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit).

With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the baghouse, along with the documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (3) The permittee shall conduct periodic inspections of the baghouse to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to Ohio EPA upon request.
- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the baghouse and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (5) The permittee shall document each inspection (periodic and annual) of the baghouse and shall maintain the following information:
 - a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date of the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (6) The permittee shall maintain records that document any time periods when the baghouse was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the baghouse was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to Ohio EPA upon request.



e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

PE from the stack shall not exceed 0.29 pound per hour.

Applicable Compliance Method:

This emissions limitation was established using the following calculation using the uncontrolled emissions factor for product storage found in AP 42 6.6.2-1 (9/91) (see note h):

$$EF = 0.4 \text{ g/kg}$$

$$(0.4 \text{ g/kg}) * (1 \text{ lb} / 453.592 \text{ g}) * (907.185 \text{ kg/ton}) = 0.8 \text{ lb/ton}$$

$$(0.8 \text{ lb/ton}) * (40 \text{ tons/hr}) * (90\% \text{ capture}) * (1 - 99\% \text{ control}) = 0.29 \text{ pound per hour PE from stack}$$

If required, PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emissions Limitation:

Fugitive PE shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9.

c. Emissions Limitation:

PE shall not exceed 15.28 tons per year.



Applicable Compliance Method:

Compliance with this emissions limitation may be demonstrated by the following calculation using the uncontrolled emissions factor for product storage found in AP 42 Table 6.6.2-1 (9/91) (see note h):

$$EF = 0.4 \text{ g/kg}$$

$$(0.4 \text{ g/kg}) * (1 \text{ lb} / 453.592 \text{ g}) * (907.185 \text{ kg/ton}) = 0.8 \text{ lb/ton}$$

$$(0.8 \text{ lb/ton}) * (350,400 \text{ tons per year}) / (2,000 \text{ lbs/ton}) = 140.16 \text{ tons PE Uncontrolled}$$

$$(140.16 \text{ tons per year}) * (1-90\% \text{ capture}) + (140.16 \text{ tons per year}) * (90\% \text{ capture}) * (1-99\% \text{ control}) = 15.28 \text{ tons per year PE Controlled}$$

d. Emissions Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six minute average, except as provided by rule.

Applicable Compliance Method

If required, visible particulate emissions shall be determined according to USEPA Method 9.

g) Miscellaneous Requirements

- (1) None.