

8/16/2012

CHRIS TUCKER
 PETRO ENVIRONMENTAL TECHNOLOGIES, INC.
 7870 E. Kemper Rd.
 Ste 240
 CINCINNATI, OH 45249

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1652070026
 Permit Number: P0110664
 Permit Type: Renewal
 County: Medina

Certified Mail

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

Dear Permit Holder:

Enclosed please find a final 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. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI 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
 309 South Fourth Street, Room 222
 Columbus, OH 43215

If you have any questions, please contact Akron Regional Air Quality Management District at (330)375-2480 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern
 Michael W. Ahern, Manager
 Permit Issuance and Data Management Section, DAPC

Cc: ARAQMD



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
PETRO ENVIRONMENTAL TECHNOLOGIES, INC.**

Facility ID:	1652070026
Permit Number:	P0110664
Permit Type:	Renewal
Issued:	8/16/2012
Effective:	8/16/2012
Expiration:	8/16/2022



Division of Air Pollution Control
Permit-to-Install and Operate
for
PETRO ENVIRONMENTAL TECHNOLOGIES, INC.

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Authorization

Facility ID: 1652070026
Application Number(s): A0045377
Permit Number: P0110664
Permit Description: Renewal PTIO for a contaminated soil bioremediation facility.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 8/16/2012
Effective Date: 8/16/2012
Expiration Date: 8/16/2022
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

PETRO ENVIRONMENTAL TECHNOLOGIES, INC.
8001 SEVILLE ROAD
SEVILLE, OH 44273

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

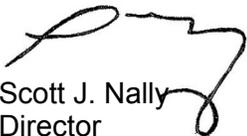
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308
(330)375-2480

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


Scott J. Nally
Director



Authorization (continued)

Permit Number: P0110664

Permit Description: Renewal PTIO for a contaminated soil bioremediation facility.

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:	Roadways & parking areas.
Superseded Permit Number:	P0101775
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F002
Company Equipment ID:	Soil Handling
Superseded Permit Number:	P0101775
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P001
Company Equipment ID:	Petrocell #5
Superseded Permit Number:	P0101775
General Permit Category and Type:	Not Applicable

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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 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 Akron Regional Air Quality Management District 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 submitting¹ 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 emissions 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.

¹Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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.

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.

C. Emissions Unit Terms and Conditions



1. F001, Paved and Unpaved Roadways and Parking Areas

Operations, Property and/or Equipment Description:

Paved and Unpaved Roadways and Parking Areas

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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(A)(3) (PTI 16-01458) with fugitive particulate emissions (PE) limits. Row b: OAC rules 3745-17-07(B)(4) & (B)(5) with emission limitations specified by these rules.



Table with 2 columns: Applicable Rules/Requirements, Applicable Emissions Limitations/Control Measures. Row c: OAC rule 3745-17-08(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08) (See b)(2)a. through b)(2)d.)

(2) Additional Terms and Conditions

- a. The permittee shall employ best available control measures on all paved and unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements.
b. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit.
c. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
d. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
e. A maximum speed limit of 10 miles per hour shall be posted and enforced on the property.
f. Any unpaved roadway or parking area that is subsequently paved, will require a General Permit for paved roadways and parking areas.
g. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and parking areas in accordance with the following frequencies:

<u>roadways and parking areas</u>	<u>minimum inspection frequency</u>
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all roads and parking areas	daily
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- (2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

- (3) The permittee shall maintain records of the following information:

- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
- c. the dates the control measures were implemented; and
- d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in d)(3)d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

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:

No visible PE from any paved roadway or parking area except for one minute during any 60-minute period; and

No visible PE from any unpaved roadway or parking area except for three minutes during any 60-minute period

Applicable Compliance Method:

If required, compliance with the visible PE limitations listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

b. Emissions Limitation:

Fugitive particulate emissions (PE) shall not exceed 2.3 tons per year.

Applicable Compliance Method:

Compliance with the above fugitive PE limitation shall be determined by using the emission factor equations in Sections 13.2.1 and 13.2.2, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1, revised 01/11 for paved roadways and revised 11/06 for unpaved roadways. Should further updates in AP-42 occur, the most current equations shall be used.

g) Miscellaneous Requirements

(1) None.



2. F002, Soil Handling and Storage Piles

Operations, Property and/or Equipment Description:

Soil Handling and Storage Piles

- 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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(A)(3) (PTI 16-01458) with fugitive particulate emissions (PE) limits and best available control measures. Row b: OAC rule 3745-17-07(B)(6) (applicable only if this emissions unit is located in an area identified in).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Appendix A of OAC rule 3745-17-08)	rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The permittee shall implement reasonably available control measures to prevent fugitive dust from becoming airborne through the periodic application of water on the material handling and storage piles.

(2) Additional Terms and Conditions

- a. The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles and all material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee’s application, the permittee has committed to implement the following control measures:
 - i. ensure that petroleum contaminated soils (PCS) are deposited, spread, and compacted in such a manner as to minimize or prevent visible emissions of fugitive dust;
 - ii. require all truckloads of PCS to be unloaded in a manner which will minimize the drop height of the PCS;
 - iii. watering of any dusty materials or wastes likely to become airborne as necessary prior to or during dumping operations in order to minimize or eliminate visible emissions of fugitive dust;
 - iv. watering done in such a manner as to avoid the pooling of liquids and runoff;
 - v. no dumping of any dusty material during periods of high wind speed unless it has been treated to prevent it from becoming airborne;
 - vi. avoid dragging any front-end loader bucket along the ground; and
 - vii. PCS shall be stored in such a manner so that any liquid runoff shall be contained, captured and disposed of according to applicable State and federal regulations.

Nothing in this paragraph shall prohibit the permittee from employing other suitable and effective control measures to ensure compliance.

- b. The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile and material handling operation if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any



required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.

- c. The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements.
d. The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements.
e. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

storage pile identification minimum load-in inspection frequency

all daily

- (2) Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

storage pile identification minimum load-out inspection frequency

all daily

- (3) Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

storage pile identification minimum wind erosion inspection frequency

all

daily

- (4) No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
- (5) The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
- (6) The permittee shall maintain records of the following information:
- the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - the dates the control measures were implemented; and
 - on a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in d)(6)d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- (7) The permittee shall maintain records which include the following information for the landfill operations (material handling):
- the volume of materials received each day; and
 - a record of water application measures performed pursuant to the requirements established in the terms and conditions of this permit.
- e) Reporting Requirements
- (1) 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-

Business Center: Air Services” although PERs can be submitted via U.S. postal service or can be hand delivered.

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:

No visible PE from soil handling operations except for a period of time not to exceed one minute during any 60-minute observation period.

No visible PE from any storage pile except for a period of time not to exceed one minute during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible PE limitations listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources")..

b. Emissions Limitation:

Fugitive PE shall not exceed 0.45 TPY.

Applicable Compliance Method:

Compliance with the above fugitive PE limitation shall be determined by using the emission factor equations in Sections 13.2.4 and 13.2.5, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 11/06)and a 50% overall control efficiency for PE. Should further updates in AP-42 occur, the most current equations shall be used.

g) Miscellaneous Requirements

(1) None.



3. P001, Bioremediation

Operations, Property and/or Equipment Description:

Air vacuum and bio reactor; captured waste gases controlled by activated carbon filtration.

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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(A)(3) (PTI 16-01458) with NMOC and OC emission limits. Row b: OAC rule 3745-21-07(M) with OC emission limitations.

(2) Additional Terms and Conditions

a. The permittee shall maintain and operate a carbon adsorption system to collect waste gases from the vacuum system with continuous emission monitoring for organic compounds (OC) in accordance with the manufacturer's

recommendations, instructions, and operating manual(s). All of the OC emissions from this emissions unit shall be vented to the carbon adsorber that meets the operational, monitoring and record keeping requirements of this permit, when the emissions unit is in operation.

- b. In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average OC concentration (in ppm) of the exhaust gases from the carbon adsorber, for any 3-hour block of time, shall not be more than 20 percent greater than the average concentration measured during the most recent performance test that demonstrated the emissions unit(s), controlled by the carbon adsorber, was/were in compliance.
- c. Bypassing the carbon adsorption system during replacement or regeneration of the carbon employed in the air pollution control equipment is prohibited.
- d. An "action level" concentration shall be established for NMOC emissions in accordance with the testing requirements established in f)(2).
- e. The permittee shall store contaminated soil in such a manner so that any liquid run-off shall be contained, captured, and disposed of in accordance with applicable State and federal regulations.

c) Operational Restrictions

- (1) The permittee shall use no more than one half gallon of diesel fuel per day in the reactor.

d) Monitoring and/or Recordkeeping Requirements

- (1) In accordance with procedures described by Ohio EPA's Operation and Maintenance Guidelines for Air Pollution Control Equipment, the permittee shall conduct and record a daily inspection of the carbon adsorption system employed for each emissions unit. This inspection shall include the following, as a minimum:
 - a. visible liquid leaks;
 - b. pressure drop across the carbon adsorption emission units;
 - c. system leaks as determined by loss of pressure at the inlet to the carbon adsorption unit; and
 - d. carbon change-out for the emission unit.
- (2) The permittee shall properly install, operate, and maintain an organic compound (OC) continuous emission monitoring system (OC CEMS) and recorder that measures and records the OC concentrations in the exhaust gases from the carbon adsorber when the emissions unit(s) is/are in operation, including periods of startup and shutdown. The OC CEMS and recorder shall be capable of satisfying the performance requirements specified in 40 CFR Part 60, Appendix B, Performance Specification 8 or Performance Specification 9 and shall be capable of accurately measuring the OC concentration. The OC CEMS and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee.

The permittee shall properly install, operate, and maintain a continuous flow monitoring device and recorder that measures and records the flow rate of the exhaust gases from the carbon adsorber when the emissions unit is in operation, including periods of startup and shutdown. The flow monitoring device and recorder shall be capable of satisfying the performance requirements specified in 40 CFR Part 60, Appendix B, Performance Specification 6. The flow monitoring device and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee.

Prior to the initial compliance demonstration, the permittee shall demonstrate that the organic monitoring device and recorder satisfy the requirements of Performance Specification 8 or Performance Specification 9 and that the flow monitoring device and recorder satisfy the requirements of Performance Specification 6.

The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:

- a. the average OC concentration in the exhaust gases from the carbon adsorber during each of the eight 3-hour blocks of time during the day;
- b. all 3-hour blocks of time, when the emissions unit(s) controlled by the carbon adsorber was/were in operation, during which the average OC concentration in the exhaust gases was more than 20 percent greater than the average concentration measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
- c. a log or record of the operating time for the capture (collection) system, carbon adsorber, monitoring equipment, and the associated emissions unit(s); and
- d. a log of the downtime for the capture (collection) system, carbon adsorber, and monitoring equipment when the associated emissions unit(s) was/were in operation.

These records shall be maintained at the facility for a period of three years.

Mass emissions for non-methane organic compounds shall be determined in accordance with the following equation:

$$ME = K \times 0.0087 \times \text{PPM} \times Q / (F + 460);$$

where,

$$ME = \text{pounds NMOC per hour};$$

$$K = \text{isobutylene/benzene correction } 56/80 \text{ (0.7)};$$

$$\text{PPM} = \text{average 3-hour block of time OC gas concentration (ppm)};$$

$$Q = \text{flow in cubic feet per minute (cfm)};$$

$$F = \text{temperature in degrees Fahrenheit.}$$

This formula may be revised based on the results of testing for baseline emissions required in f)(2).

- (3) Whenever the monitored average OC concentration of the exhaust gases from the carbon adsorber deviates from the limit/range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the OC concentration of the exhaust gases from the carbon adsorber immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

- (4) The permittee shall maintain a daily record of the following data for the soil gas extraction unit P001:
- a. For an excursion above the "action level" established during the testing for baseline emissions required in f)(2), the permittee shall maintain the following records:
 - i. The time of day and date of the excursion;
 - ii. The NMOC calculated emission rate;

- iii. An explanation of the cause of the excursion;
 - iv. A quantification of the mass emissions, in pounds, during the excursion; and
 - v. Any actions taken to correct the excursion (If the NMOC calculated emission rate would exceed 0.75 pound of NMOC per hour, the vacuum pumps shall be shut down).
- b. The results of all analyses of the soil remediated for total petroleum hydrocarbon, benzene, toluene, ethylbenzene, and xylenes (BTEX), and OC; and
 - c. The date on which a vacuum pump is removed from service, the size of any replacement pump, the date of installation for any replacement pump, and the resulting air flow rate for each carbon adsorption system;
 - d. the number of gallons of diesel fuel consumed by the reactor; and
 - e. the number of cubic yards of contaminated soil added or removed from the cell shall be recorded with weight data, if available.
- (5) The permittee shall develop and maintain a quality assurance/quality control (QA/QC) plan for the OC CEMS that includes, at a minimum, the following information and procedures:
- a. The QA/QC Plan shall identify and include the following information:
 - i. the manufacturer and model of the monitoring/recording device(s);
 - ii. the procedure for calibrating the instrumentation, including the frequency of calibration and calibration gas concentrations to be used;
 - iii. calibration drift determination and adjustment of CEMS;
 - iv. preventive maintenance of CEMS (including spare parts inventory);
 - v. data recording, calculations and reporting;
 - vi. accuracy audit procedures;
 - vii. program of corrective action for malfunctioning CEMS; and
 - viii. operating conditions for each carbon adsorption system including average air flow rate, temperature ranges for inlet and outlet gases, expected hours of downtime per day to pump out the knockout tanks under either dry or wet weather conditions
 - b. The QA/QC plan shall be submitted to the manufacturer of the OC CEMS instrumentation for comment and any comments shall be submitted with the plan.

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 Akron Regional Air Quality Management District (ARAQMD).
- (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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.
- (3) The permittee shall identify in the annual PER the following information concerning the operations of the carbon adsorber during the 12-month reporting period for this/these emissions unit(s):
 - a. all 3-hour blocks of time(start time and date, and end time and date)during which the average OC concentration of the exhaust gases from the carbon adsorber was more than 20 percent greater than the average concentration recorded during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
 - b. any period of time (start time and date, and end time and date)when the emissions unit(s) was/were in operation and the process emissions were not vented to the carbon adsorber;
 - c. any records of downtime (date and length of time) for the capture (collection) system, the carbon adsorber, or the monitoring equipment when the emissions unit(s) was/were in operation
 - d. each incident of deviation described in "a" or "b" or "c" (above) where a prompt investigation was not conducted;
 - e. each incident of deviation described in "a" or "b" or "c" where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the OC concentration of the exhaust gases into compliance with the acceptable limit, was determined to be necessary and was not taken; and
 - f. each incident of deviation described in "a" or "b" or "c" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (4) The permittee shall submit a report to the ARAQMD for each gas leak or carbon bed change-out, as specified in d)(1)c. and d)(1)d. The report shall detail the time and date of each occurrence with the length of time during which the carbon adsorption system was bypassed and shall be submitted within fourteen (14) days of each occurrence.
- (5) The permittee shall submit a report to the ARAQMD for each excursion above the "action level" established during the testing for baseline emissions required in f)(2). This

report shall include the information required in d)(4)a. and shall be submitted within fourteen (14) days of each excursion.

- (6) The permittee shall submit a report to the ARAQMD for each change in the air treatment system as specified in d)(4)c.
 - (7) If not already done so, the permittee shall submit the QA/QC plan, specified in d)(5), to the ARAQMD for approval.
- 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:

Non-methane organic compound (NMOC) emissions shall not exceed 0.75 pound per hour and 3.3 tons per year.

Organic compound (OC) emissions (including methane) shall not exceed 3.0 pounds per hour and 13.1 tons per year.

Applicable Compliance Method:

Compliance with the hourly NMOC and OC emissions limitations shall be determined in accordance with the testing requirements established in f)(2).
 - (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months after issuance of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the hourly NMOC and OC emissions limitations.
 - c. The following test method(s) shall be employed, if applicable and appropriate, to demonstrate compliance with the allowable mass emission rate(s):

Methods 1 through 4 and Method 18, 25 or 25A of 40 CFR 60, Appendix A, or Method 320 of 40 CFR 63, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the

tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- h. In lieu of performing the aforementioned on-site testing, test results from identical operations, with the same operating conditions, may be accepted provided the untreated soil is identical in type and quantities of air contaminants, and the test waiver is approved by the Ohio EPA. The request for a test waiver shall be submitted to ARAQMD at least 90 days prior to the test deadline specified in f)(2)(a.) above.
- i. An "action level" concentration shall be established for non-methane organic compounds (NMOC) during the above emissions testing, using procedures and methods approved by Ohio EPA, of exhaust gases from the carbon adsorption unit for P001 at a maximum exhaust gas flow rate and at a condition generating the highest uncontrolled mass emissions of NMOC.

g) **Miscellaneous Requirements**

- (1) None.