John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

11/2/2012

Certified Mail

Mr. Josh Turigliatti
Technisand, Inc. Tiltonsville Terminal
4115 Progress Drive, Unit B
Ottawa, IL 61350

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: 0641175002
Permit Number: P0110650
Permit Type: Initial Installation
County: Jefferson

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/dapc/permitsurvey.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)385-8501or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael W. Ahern

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

Cc: Ohio EPA-SEDO

FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
Technisand, Inc. Tiltonsville Terminal

Facility ID:	0641175002
Permit Number:	P0110650
Permit Type:	Initial Installation
Issued:	11/2/2012
Effective:	11/2/2012
Expiration:	11/2/2022

Division of Air Pollution Control
Permit-to-Install and Operate
for
Technisand, Inc. Tiltonsville Terminal

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Authorization

Facility ID:	0641175002
Application Number(s):	A0044972
Permit Number:	P0110650
Permit Description:	Initial installation PTIO for EUs F001, F002, F003 and P901
Permit Type:	Initial Installation
Permit Fee:	$800.00
Issue Date:	11/2/2012
Effective Date:	11/2/2012
Expiration Date:	11/2/2022

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Technisand, Inc. Tiltonsville Terminal
198 Walden Avenue
Tiltonsville, OH 43963

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

Scott J. Nally
Director

Authorization (continued)

Permit Number: P0110650
Permit Description: Initial installation PTIO for EUs F001, F002, F003 and P901

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:	Unpaved Roadways
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**F002**
Company Equipment ID:	Material Handling
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**F003**
Company Equipment ID:	Frac Sand Material Storage Piles
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P901**
Company Equipment ID:	Frac Sand Handling, Storage and Loading
Superseded Permit Number:	
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 takenby 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 Ohio EPA DAPC, Southeast District Office 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[1] 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.

[1]Permittees 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, Unpaved Roadways and Parking Areas

Operations, Property and/or Equipment Description:

Unpaved roadways and parking areas associated with frac sand material handling operation controlled with water and/or chemical dust suppression

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.	ORC rule 3704.03(T)	No visible PE except for 3 minutes during any 60-minute observation period.
b.	OAC rule 3745-17-07(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC rule 3704.03(T).
c.	OAC rule 3745-17-08(B)	Reasonably available control measures that are sufficient to minimize or eliminate visible emission of fugitive dust. (See b)(2)a. through b)(2)f.)

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance

with theabove-mentioned applicable requirements. In accordance with the permittee'sapplication, the permittee has committed to treat the unpaved roadways andparking areas by application of chemical stabilization/dust suppressants and/orwatering at sufficient treatment frequencies to ensure compliance. Nothing inthis paragraph shall prohibit the permittee from employing other controlmeasures to ensure compliance.

b. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section ofthis permit. Implementation of the control measures shall not be necessary forunpaved roadways and parking areas that are covered with snow and/or ice or ifprecipitation has occurred that is sufficient for that day to ensure compliance withthe above-mentioned applicable requirements. Implementation of any controlmeasure may be suspended if unsafe or hazardous driving conditions would becreated by its use.

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 suchmaterial has been deposited by trucking or earth moving equipment or erosion bywater or other means.

d. Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled using *appropriatedust control measures for paved surfaces*. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to a visible emission limitation of no visible particulate emissions except for one minute during any 60-minute period.

e. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for thematerials being transported.

f. 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 ORC rule 3704.03(T) and OAC rules 3745-17-07 and 3745-17-08.

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 followingfrequencies:

unpaved roadways and parking areas	minimum inspection frequency
all roads and parking areas	daily

(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 parkingarea that is covered with snow and/or ice or if precipitation has occurred that is sufficientfor 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 eventsshall be performed as soon as such event(s) has (have) ended, except if the nextrequired 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 orprecipitation;

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 orprecipitation 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 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) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permitteeshall submit the PER in the form and manner provided by the director by the due dateidentified in the Authorization section of this permit. The permit evaluation report shallcover 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 emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

No visible PE except for 3 minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 22.

g) Miscellaneous Requirements

(1) None.

2. F002, Frac Sand Material Handling

Operations, Property and/or Equipment Description:

Frac Sand Barge Unloading - including frac sand barge unloading with clamshell crane into hopper and 5 partially enclosed belt conveyors controlled by partial enclosures and practices to minimize and/or eliminate fugitive emissions

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.	ORC rule 3704.03(T)	Visible PE of fugitive dust shall not exceed 15% opacity as a 3-minute average.
c.	OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC rule 3704.03(T).
d.	OAC rule 3745-17-08(B)	Reasonably available control measures that are sufficient to minimize or eliminate visible emission of fugitive dust. (See b)(2)a. through b)(2)c.)

(2) Additional Terms and Conditions

a. The material handling operations included in this emissions unit that are covered by this permit and subject to the requirements of ORC rule 3704.03(T), OAC rules 3745-17-07 and 3745-17-08 are listed below:

Barge Unloading w/ clamshell crane

Hopper Load-in w/ clamshell crane

Hopper Load-out onto conveyor

5 Conveyors to Enclosure

b. The permittee shall employ the following control measures for the above-identified processing/handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

material handling operation(s)	control measure(s)
Hopper Load-in w/ clamshell crane	maintain 4 sided enclosure, minimize drop height and do not overload hopper
Hopper Load-out onto conveyor	minimize drop height, do not overload conveyors and partially enclose conveyors
5 Conveyors to Enclosure	partially enclose conveyors

Nothing in this paragraph shall prohibit thepermittee from employing other control measures to ensure compliance.

c. Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of ORC 3704.03(T), OAC rules 3745-17-07 and 3745-17-08.

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 material handling operationoperation at each storage pile in accordance with the following frequencies:

material handling operation(s)	minimuminspection frequency
Barge Unloading w/ clamshell crane	daily
Hopper Load-in w/ clamshell crane	daily
Hopper Load-out onto conveyor	daily
Conveying and transfer points to enclosure	daily

(2) The above-mentioned inspections shall be performed during representative, normal operating conditions.

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

a. the date and reason any required inspection was not performed;

b. the date of each inspection where it was determined by the permittee that it was necessary to implement (an) additional control measure(s)

c. the dates the additional control measure(s) was (were) implemented; and

d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in d)(3)d. shall be kept separately for each material handling/prosessing operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

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) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permitteeshall submit the PER in the form and manner provided by the director by the due dateidentified in the Authorization section of this permit. The permit evaluation report shallcover 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 emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation:

Visible PE of fugitive dust shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

3. F003, Frac Sand Material Storage Piles

Operations, Property and/or Equipment Description:

Frac Sand Material Storage Piles controlled by building enclosure and practices to minimize and/or eliminate fugitive emissions (including two conveyor load-ins and one front loader load-out with a total pile surface area of 0.5 acres with a maximum of 2 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T)	There shall be no visible fugitive PE except for one minute during any 60-minute period.
b.	OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC rule 3704.03(T).
c.	OAC rule 3745-17-08(B)	Reasonably available control measures that are sufficient to minimize or eliminate visible emission of fugitive dust. (See b)(2)a. through b)(2)g.)

(2) Additional Terms and Conditions

a. The storage piles that are covered by this permit and subject to the requirements of ORC rule 3704.03(T), OAC rules 3745-17-07 and 3745-17-08 are listed below:

All frac sand storage piles

b. The permittee shall employ best/reasonable available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuringcompliance with the above-mentioned applicable requirements, including: store all material inside of a 4 sided building, maintain minimaldrop heights for conveyor load-in, control rate of load-in/out of piles and maintain building enclosure to ensure compliance.

c. The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage 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 abovementioned 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.

d. The permittee shall employ best/reasonable available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with theabove-mentioned applicable requirements. The permittee has committed to perform one or more of the following:store all material inside of a 4 sided building, maintain minimaldrop heights for conveyor load-in, control rate of load-in/out of piles and maintain building enclosure to ensure compliance.

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

f. 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. Implementation of the control measure(s) shall not be necessary for a storage pile 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.

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 requirements of ORC 3704.03(T), OAC rules 3745-17-07 and 3745-17-08.

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 conveyor 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 front loader 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) 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.

(5) 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, 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)(5)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.

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) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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 emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation:

There shall be no visible fugitive PE except for one minute during any 60-minute period.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 22.

g) Miscellaneous Requirements

(1) None.

4. P901, Frac Sand Handling, Storage and Loading

Operations, Property and/or Equipment Description:

Frac Sand Material Handling, Silo Storage and Truck Loading - including a hopper, partially enclosed conveyor, fully enclosed bucket elevator, two storage silos controlled by BIN vents with two load-out spouts controlled by dust collectors with fabric filters

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.	ORC 3704.03(T)	Visible PE of fugitive dust shall not exceed 15% opacity as a 3-minute average. There shall be no visible PE from the exhaust stacks serving this emissions unit.
b.	OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).
c.	OAC rule 3745-17-08(B)	Control equipment shall achieve an outlet emission rate of not greater than 0.030 gr/dscf of PE or no visible PE from the exhaust stacks, whichever is less

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		stringent. Reasonably available control measures that are sufficient to minimize or eliminate visible emission of fugitive dust. (See b)(2)a. through b)(2)c.)
d.	OAC rule 3745-17-11(B)(1)	PE from each stack serving the silos shall not exceed 6.79 lbs/hr

(2) Additional Terms and Conditions

a. The fugitive emissions from material handling operations included in this emissions unit that are covered by this permit and subject to the requirements of ORC rule 3704.03(T), OAC rule 3745-17-07 and 3745-17-08 are listed below:

Hopper Load-in w/ front loader

Hopper Load-out onto Conveyor

Conveyor to Bucket Elevator

Silo Load-out/Truck loading

The material handling operations included in this emission unit that are covered by this permit and subject to the requirements of OAC rule 3745-17-11 are listed below:

Bucket Elevator Load-out into Silo storage

Silo Load-out/Truck loading

b. The permittee shall employ the following control measures for the above-identified processing/handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

material handling operation(s)	control measure(s)
Hopper Load-in with front loader	maintain 4 sided enclosure and minimize drop height
Hopper Load-out onto conveyor	minimize drop height, partially enclose and do not overload conveyor

Conveying to Bucket Elevator	partially enclose and do not overload conveyor, fully enclose bucket elevator
Bucket Elevator load-out into Silo storage	fully enclosed transfer point controlled with BIN vent with 99% overall control efficiency
Silo load-out/Truck loading	dust collection system with fabric filter with 90% overall control efficiency

Nothing in this paragraph shall prohibit thepermittee from employing other control measures to ensure compliance.

c. Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of ORC rule 3704.03(T), OAC rule 3745-17-07(B) and 3745-17-08(B).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Except as otherwise provided in this section, the permittee shall perform inspections for visible fugitive particulate emissions of each material handling operation in accordance with the following frequencies:

material handling operation(s)	minimuminspection frequency
Hopper Load-in w/ front loader	daily
Hopper Load-out onto conveyor	daily
Conveyor to Bucket Elevator	daily
Silo Load-out/Truck Loading	daily

(2) The above-mentioned inspections shall be performed during representative, normal operating conditions.

(3) The permittee shall also perform daily checks, when the emissions unit is in operation and, when the weather conditions allow, for any visible particulate emissions from the exhaust stacks on each silo. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed from any points of capture and/or the stack, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. the total duration of any visible emissions incident; and

c. any corrective actions taken to eliminate the visible emissions.

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

a. the date and reason any required inspection was not performed;

b. the date of each inspection where it was determined by the permittee that it was necessary to implement (an) additional control measure(s)

c. the dates the additional control measure(s) was (were) implemented; and

d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in d)(1)and d)(3) shall be kept separately for each material handling/prosessing operation and exhaust stack identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

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) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permitteeshall submit the PER in the form and manner provided by the director by the due dateidentified in the Authorization section of this permit. The permit evaluation report shallcover 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 emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation:

Visible PE of fugitive dust shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

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

b. Emissions Limitation:

Control equipment shall achieve an outlet emission rate of not greater than 0.030 gr/dscf of PE.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance by emission testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

c. Emissions Limitation:

There shall be no visible particulate emissions from the exhaust stacks serving this emissions unit.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 22.

d. Emission Limitation:

PE emissions from each stack serving the silos shall not exceed 6.79 lbs/hr

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance by emission testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

g) Miscellaneous Requirements

(1) None.