



3/20/2014

Certified Mail

MICHAEL SMALL
 Small's Sand and Gravel
 10229 KILLDUFF RD
 GAMBIER, OH 43022

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
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
 Facility ID: 0142000058
 Permit Number: P0110803
 Permit Type: Administrative Modification
 County: Knox

Dear Permit Holder:

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

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-CDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Small's Sand and Gravel**

Facility ID:	0142000058
Permit Number:	P0110803
Permit Type:	Administrative Modification
Issued:	3/20/2014
Effective:	3/20/2014
Expiration:	5/8/2017



**Division of Air Pollution Control
Permit-to-Install and Operate**

for
Small's Sand and Gravel

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Final Permit-to-Install and Operate
Small's Sand and Gravel
Permit Number: P0110803
Facility ID: 0142000058
Effective Date: 3/20/2014

Authorization

Facility ID: 0142000058
Application Number(s): M0001876
Permit Number: P0110803
Permit Description: Administrative modification to group eight (8) diesel-fired engines, of various horsepower ratings, used in the production of aggregates.
Permit Type: Administrative Modification
Permit Fee: \$0.00
Issue Date: 3/20/2014
Effective Date: 3/20/2014
Expiration Date: 5/8/2017
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Small's Sand and Gravel
10229 KILLDUFF RD
Gambier, OH 43022

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

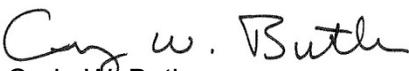
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0110803
 Permit Description: Administrative modification to group eight (8) diesel-fired engines, of various horsepower ratings, used in the production of aggregates.

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

Group Name: Facility Wide Limits Mod

Emissions Unit ID:	P002
Company Equipment ID:	934 hp generator
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	Longline Dredge Motor
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	Dragline Dredge Motor
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	175 hp diesel engine
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	425 hp diesel motor
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P011
Company Equipment ID:	275 hp diesel engine
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P012
Company Equipment ID:	450 hp generator #1
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P013
Company Equipment ID:	450 hp generator #2
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable

Group Name: ICE-115 HP & 250 HP

Emissions Unit ID:	P005
Company Equipment ID:	Pond Pump
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	Topsoil Plant Engine
Superseded Permit Number:	P0105286



Final Permit-to-Install and Operate

Small's Sand and Gravel

Permit Number: P0110803

Facility ID: 0142000058

Effective Date: 3/20/2014

General Permit Category andType:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	HSI Crusher Engine
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	VSI Crusher Engine
Superseded Permit Number:	P0105286
General Permit Category andType:	Not Applicable



Final Permit-to-Install and Operate
Small's Sand and Gravel
Permit Number: P0110803
Facility ID: 0142000058
Effective Date: 3/20/2014

A. Standard Terms and Conditions



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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

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

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

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



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

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

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

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

7. What reports must I submit under this permit?

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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



change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

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

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

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

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



Final Permit-to-Install and Operate
Small's Sand and Gravel
Permit Number: P0110803
Facility ID: 0142000058
Effective Date: 3/20/2014

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) The emissions of total Nitrogen Oxides (NOx) from all emissions units, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, P013, and P903 shall not exceed 99.0 tons per year, based upon a rolling, 12-month summation of the emissions.
 - (2) The emissions of total NOx from all internal combustion engines, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, and P013 shall not exceed 86.6 tons per year, based upon a rolling, 12-month summation of the emissions.
 - (3) The maximum annual total fuel usage from all internal combustion engines, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, and P013 shall not exceed 375,182 gallons based upon a rolling, 12-month summation of the fuel usage figures.
 - c) **Monitoring and Recordkeeping Requirements**
 - (1) NOx emissions shall be calculated from all emissions units P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, P013, and P903 per rolling 12-month period.
 - (2) NOx emission shall be calculated from all internal combustion engines, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, and P013, per rolling 12-month period.
 - (3) For emissions units P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, and P013, fuel usage shall be calculated per rolling 12-month period.
 - d) **Reporting Requirements**
 - (1) For emissions units P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, and P013, and P903, the permittee shall identify in the quarterly deviation report any exceedance of the facility wide diesel fuel oil usage restriction, to include the amount of diesel fuel usage recorded for each such rolling 12-month period and any exceedance of the facility wide NOx emission limitations, to the amount of NOx emissions recorded for each such rolling, 12-month period.



e) 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. Emission Limitations:

The emissions of total Nitrogen Oxides (NO_x) from all emissions units P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, P013 and P903, shall not exceed 99.0 tons per year, based upon a rolling, 12-month summation of the emissions.

Applicable Compliance Method:

Compliance with the annual NO_x emissions limitation shall be demonstrated by a emission calculation utilizing the appropriate fuel heat content of natural gas and/or #2 diesel oil, the controlled emission factor listed in AP-42 and the fuel usage per rolling, 12-month summation as calculated in c)(3).

b. Emission Limitations:

The emissions of total NO_x from all internal combustion engines, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, and P013 shall not exceed 86.6 tons per year, based upon a rolling, 12-month summation of the emissions.

Applicable Compliance Method:

Compliance with the annual NO_x emissions limitation shall be demonstrated by a emission calculation utilizing the fuel heat content of #2 diesel oil, the controlled emission factor listed in AP-42 Section 3 for large stationary diesel fuel engines and the fuel usage per rolling, 12-month summation as calculated in c)(3).

c. Emission Limitations:

The maximum annual total fuel usage for all internal combustion engines, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, and P013, shall not exceed 375,182 gallons based upon a rolling, 12-month summation of the fuel usage figures.

Applicable Compliance Method:

Compliance with the fuel usage limitation shall be demonstrated by the record keeping requirements as specified in c)(3).

2. The Ohio EPA has determined that this facility may be subject to the requirements of an area source MACT/GACT rule that the Ohio EPA does not have the delegated authority to implement. Although Ohio EPA has determined that an area source MACT (also known as the GACT) may apply, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised that all requirements associated with these rules are in effect



Final Permit-to-Install and Operate

Small's Sand and Gravel

Permit Number: P0110803

Facility ID: 0142000058

Effective Date: 3/20/2014

and are enforceable by U.S. EPA. For more information on the area source rules, please refer to the follow U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>



Final Permit-to-Install and Operate
Small's Sand and Gravel
Permit Number: P0110803
Facility ID: 0142000058
Effective Date: 3/20/2014

C. Emissions Unit Terms and Conditions



1. Emissions Unit Group -Facility Wide Limits Mod: P002,P003,P004,P009,P010,P011,P012,P013,

EU ID	Operations, Property and/or Equipment Description
P002	934 horsepower diesel powered generator (terms and conditions in this permit to install supercede those identified in PTI 04-01409 issued 7/12/2005)
P003	600 horsepower longline dredge diesel fired motor
P004	300 horsepower dragline dredge diesel fired motor
P009	175 horsepower screen plant diesel fired engine
P010	425 horsepower recycling plant diesel-fired motor
P011	275 horsepower recycling plant diesel-fired engine
P012	450 horsepower Caterpillar Model 3408-T (1985) generator No. 1
P013	450 horsepower Caterpillar Model 3408-T (1984) generator No. 2

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. b)(1)b.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI No. P0105286 Issued 5/8/2012)	<p>For emission units P002, P003, P004, P009, P010, P011, P012, and P013, the emission limits for NOx, CO, SO₂, PM10, and OC shall not exceed those limits noted below in b)(2)d.</p> <p>For emissions units P002, P003, P004, P009, P010, P011, P012, and P013, visible emissions of particulate shall not exceed 10% opacity as a six-minute average from the diesel engine exhaust.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)a below. <u>dredging operations emissions:</u> For emissions units P003, and P004, there shall be no emissions of particulate matter from this wet mining operation. See b)(2)c below.
b.	OAC rule 3745-31-05(D) [Synthetic Minor to avoid Title V and Nonattainment New Source Review]	The emissions of total NOx from all internal combustion engines, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, and P013 shall not exceed 86.6 tons per year, based upon a rolling, 12-month summation of the emissions. See facility wide limits in B)(1)b. above.
c.	OAC rule 3745-17-07(A)	For emissions units P002, P003, P004, P009, P010, P011, P012, and P013, the emissions limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-11(B)(5)	For emissions units, P002, P003, P004, P009, P010, P011, P012, and P013, the emissions limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. All particulate emissions from diesel engine emissions are considered PM10.
- b. The sulfur content of the distillate oil shall not exceed 0.5 weight percent sulfur.
- c. For P003, compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by mining of only wet materials in this wet mining operation (as defined in 40 CFR Part 60.671).
- d. The emissions of total Nitrogen Oxides (NOx), Carbon Monoxide (CO), Sulfur Dioxide (SO2), Particulate matter equal to or less than 10 microns in diameter (PM10), and Organic Compounds (OC) for emissions units P002, P003, P004, P009, P010, P011, P012, P013, and P903, are listed in lbs/hr and tons/yr below.



<u>EU</u>	lbs/hr	TPY	<u>NOxCO₂PM₁₀OC</u>							
			lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
<u>P002</u>	16.2	71.0	7.3	32.0	4.3	18.8	0.6	2.6	0.8	3.5
<u>P003</u>	5.0	21.9	1.3	5.7	0.8	3.5	0.1	0.4	0.2	0.9
<u>P004</u>	3.5	15.3	0.8	3.5	0.3	1.3	0.3	1.3	0.3	1.3
<u>P009</u>	2.0	8.76	0.5	2.19	0.2	0.88	0.2	0.88	0.2	0.88
<u>P010</u>	4.9	21.46	1.1	4.82	0.4	1.75	0.4	1.75	0.4	1.75
<u>P011</u>	3.2	14.02	0.7	3.07	0.3	1.31	0.3	1.31	0.3	1.31
<u>P012</u>	5.1	22.34	1.1	4.82	0.4	1.75	0.4	1.75	0.5	2.19
<u>P013</u>	5.1	22.34	1.1	4.82	0.4	1.75	0.4	1.75	0.5	2.19

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) For emissions units P002, P003, P004, P009, P010, P011, P012, and P013 the permittee shall maintain monthly records of the following information:
 - a. the fuel usage for each month.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

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



a. Opacity Limitation:

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 10 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR, Part 60, Appendix A.

b. Emission Limitations:

The emissions of fugitive PM₁₀, NO_x, CO, OC, and SO₂ shall not exceed the limits in tons per year (TPY) listed below.

<u>EU</u>	<u>Units</u>	<u>NO_x</u>	<u>CO</u>	<u>SO₂</u>	<u>PM₁₀</u>	<u>OC</u>
<u>P002</u>	lbs/hr	16.2	7.3	4.3	0.6	0.8
	tons/yr	24.6	11.16	8	0.9	1.2
<u>P003</u>	lbs/hr	5.8	1.3	0.8	0.1	0.2
	tons/yr	21.7	5.8	3.4	0.4	0.6
<u>P004</u>	lbs/hr	3.5	0.8	0.3	0.3	0.3
	tons/yr	5.3	1.2	0.4	0.4	0.4
<u>P009</u>	lbs/hr	2.0	0.5	0.2	0.2	0.2
	tons/yr	3.1	0.7	0.2	0.3	0.3
<u>P010</u>	lbs/hr	4.9	1.1	0.4	0.4	0.4
	tons/yr	7.5	1.6	0.5	0.6	0.7
<u>P011</u>	lbs/hr	3.2	0.7	0.3	0.3	0.3
	tons/yr	4.8	1.1	0.4	0.4	0.4
<u>P012</u>	lbs/hr	5.1	1.1	0.4	0.4	0.5
	tons/yr	22.3	4.8	1.5	1.6	1.8
<u>P013</u>	lbs/hr	5.1	1.1	0.4	0.4	0.5
	tons/yr	7.9	1.7	0.6	0.6	0.7

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly PM, NO_x, CO, OC, and SO₂ emissions limitation by a one-time calculation using the following variables and equation:

HC= heat content of #2 diesel oil (141,000 Btu/gallon),

FC = fuel consumption in gallons /hour, (see below),



$EF_{PM,NO_x,CO,OC,orSO_x}$ = Emission Factor for specific emissions (see below),

EU	P003	P004	P009	P010	P011	P012 & P013
HC	= heat content of #2 diesel oil (141,000 Btu/gallon)					
Fuel Consumption FC (in gal/hr)	11	5.5	3.16	7.76	5.03	8.19
EF_{PM} in lb/MMBtu	0.062	0.31	0.31	0.31	0.31	0.31
EF_{NO_x} in lb/MMBtu	3.2	4.41	4.41	4.41	4.41	4.41
EF_{CO} in lb/MMBtu	0.85	0.95	0.95	0.95	0.95	0.95
EF_{OC} in lb/MMBtu	0.09	0.36	0.36	0.36	0.36	0.36
EF_{SO_2} in lb/MMBtu	0.505	0.29	0.29	0.29	0.29	0.29

Hourly Emissions Calculation:

Hourly NO_x emissions = $([HC * FC] / 1,000,000) * EF_{NO_x}$

Hourly CO emissions = $([HC * FC] / 1,000,000) * EF_{CO}$

Hourly OC emissions = $([HC * FC] / 1,000,000) * EF_{OC}$

Hourly SO₂ emissions = $([HC * FC] / 1,000,000) * EF_{SO_x}$

Hourly PM emissions = $([HC * FC] / 1,000,000) * EF_{PM}$

(For Emissions Unit P005, P006, P007, P008, Emission Factors for PM, NO_x, CO, OC, SO₂ came from AP-43, Chapter 3.4, Table 3.4-1 (10/1996))

Annual Emissions Calculation:

Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).



Final Permit-to-Install and Operate

Small's Sand and Gravel

Permit Number: P0110803

Facility ID: 0142000058

Effective Date: 3/20/2014

If required, the permittee shall demonstrate compliance with the NOx emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7 or 7E.

If required, the permittee shall demonstrate compliance with the SO2 emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6 or 6C.

If required, the permittee shall demonstrate compliance with the CO emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6 and 10.

If required, the permittee shall demonstrate compliance with the VOC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 25A.

If required, the permittee shall demonstrate compliance with the PM emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

g) Miscellaneous Requirements

(1) None.



2. Emissions Unit Group -ICE-115 HP (P005,P006) & ICE-250 HP (P007,P008)

EU ID	Operations, Property and/or Equipment Description
P005	115 horsepower diesel fired pond pump
P006	115 horsepower topsoil plant diesel fired engine
P007	250 horsepower HSI crusher diesel-fired engine
P008	250 horsepower VSI crusher diesel-fired engine

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. b)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p><u>For emission units P005 and P006, emissions shall not exceed:</u></p> <p>1.4 lbs/hr and 6.13 TPY of NO_x.</p> <p>0.3 lb/hr and 1.31 TPY of CO.</p> <p>0.1 lb/hr and 0.44 TPY of SO₂.</p> <p>0.1 pound per hour of fugitive particulate matter equal to or less than 10 microns in diameter (PM₁₀).</p> <p>0.1 lb/hr and 6.13 TPY of OC.</p> <p>Visible emissions of particulate shall not</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		exceed 10% opacity as a six-minute average from the diesel engine exhaust. See b)(2)d. below.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	<u>For emission units P007 and P008, emissions shall not exceed:</u> 2.9 lbs/hr and 12.7 TPY of NOx. 0.61 lb/hr and 2.67 TPY of CO. 0.19 lb/hr and 0.83 TPY SO2. 0.2 pound per hour and 0.31 ton per year of fugitive particulate matter equal to or less than 10 microns in diameter (PM10). 0.22 lb/hr and 0.964 TPY of OC. See b)(2)a., b)(2)b., and b)(2)d.
c.	OAC rule 3745-31-(A)(3), as effective 12/01/06	<u>For emission unit P007 and P008:</u> See b)(2)b.
d.	3745-31-05(D) [Synthetic Minor to avoid Title V and Nonattainment New Source Review]	The emissions of total NOx from all internal combustion engines, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, and P013 shall not exceed 86.6 tons per year, based upon a rolling, 12-month summation of the emissions. See facility wide limits in B)(1)b. above.
e.	OAC rule 3745-17-07(A)	<u>For emission units P005 and P006:</u> The emissions limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3). <u>For emission units P007 and P008:</u> Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
f.	OAC rule 3745-17-11(B)(5)	<u>For emission units P005 and P006:</u> The emissions limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule 3745-31-05(A)(3). <u>For emission units P007 and P008:</u> Emissions of particulate matter from the combustion of #2 diesel oil in this emissions unit shall not exceed 0.310 lb/MMBtu.
g.	OAC rule 3745-18-06(E)	<u>For emission units P007 and P008:</u> See b)(2)c. below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

 The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10, CO, OC, and SO₂ emissions from this air contaminant source since the uncontrolled potential to emit for PM10, CO, OC, and SO₂ is less than 10 tons/yr.
- c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(B).
- d. All particulate emissions from diesel engine emissions are considered PM10.
- e. The sulfur content of the distillate oil shall not exceed 0.5 weight percent sulfur.

c) Operational Restrictions

- (1) None.



d) Monitoring and/or Recordkeeping Requirements

- (1) For emissions units P005, P006, P007, and P008 the permittee shall maintain monthly records of the following information:
 - a. the fuel usage for each month.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Opacity Limitation:

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR, Part 60, Appendix A.

b. Emission Limitations:

For emission units P005, P006, P007, and P008, emissions of fugitive PM₁₀, NO_x, CO, OC, and SO₂ shall not exceed the limits in pounds per hour (lbs/hr), and tons per year (tons/yr) listed below.

EU UnitsNOxCOSO₂PM₁₀OC

<u>P005 & P006</u> lbs/hr	1.40.3	0.1	0.1	0.1
	tons/yr	6.13	1.31	0.440.440.44

<u>P007 & P008</u> lbs/hr	2.90.610.19	0.2	0.22
	tons/yr	12.72.670.83	0.880.96



Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly PM, NO_x, CO, OC, and SO₂ emissions limitation by a one-time calculation using the following variables and equation:

HC= heat content of #2 diesel oil (141,000 Btu/gallon),

FC = fuel consumption in gallons /hour, (see below),

EF_{PM,NO_x,CO,OC,orSO_x}= Emission Factor for specific emissions (see below),

EU	P005 & P006	P007 & P008
HC	= heat content of #2 diesel oil (141,000 Btu/gallon)	=Heat Content of #2 diesel oil (141,000 Btu/gallon)
Fuel Consumption FC (in gal/hr)	2.14	4.6
EF_{PM} in lb/MMBtu	0.31	0.062
EF_{NO_x} in lb/MMBtu	4.41	4.41
EF_{CO} in lb/MMBtu	0.95	0.85
EF_{OC} in lb/MMBtu	0.36	0.09
EF_{SO₂} in lb/MMBtu	0.29	0.505

Hourly Emissions Calculation:

$$\text{Hourly PM emissions} = ([\text{HC} * \text{FC}] / 1,000,000) * \text{EF}_{\text{PM}}$$

$$\text{Hourly NO}_x \text{ emissions} = ([\text{HC} * \text{FC}] / 1,000,000) * \text{EF}_{\text{NO}_x}$$

$$\text{Hourly CO emissions} = ([\text{HC} * \text{FC}] / 1,000,000) * \text{EF}_{\text{CO}}$$

$$\text{Hourly OC emissions} = ([\text{HC} * \text{FC}] / 1,000,000) * \text{EF}_{\text{OC}}$$

$$\text{Hourly SO}_2 \text{ emissions} = ([\text{HC} * \text{FC}] / 1,000,000) * \text{EF}_{\text{SO}_x}$$

(For Emissions Unit P005, P006, P007, P008, Emission Factors for PM, NO_x, CO, OC, SO₂ came from AP-43, Chapter 3.4, Table 3.4-1 (10/1996))



Annual Emissions Calculation:

Compliance with the annual limitations shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

If required, the permittee shall demonstrate compliance with the NO_x emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7 or 7E.

If required, the permittee shall demonstrate compliance with the SO₂ emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6 or 6C.

If required, the permittee shall demonstrate compliance with the CO emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6 and 10.

If required, the permittee shall demonstrate compliance with the VOC emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 25A.

If required, the permittee shall demonstrate compliance with the PM emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

g) Miscellaneous Requirements

- (1) None.