



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

1/7/2013

Mike Moeller
Ohio Mulch Supply Inc.
1600 UNIVERSAL RD
Columbus, OH 43207

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0125042476
Permit Number: P0110212
Permit Type: Initial Installation
County: Franklin

Certified Mail

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

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Columbus Dispatch. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically 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. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification
Ohio EPA-CDO



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

Ohio Mulch Supply is an existing mulch manufacturer and supplier located at 2140 Advance Avenue in Columbus, Ohio. The existing facility grinds hardwoods and yard waste to make mulch and bags the mulch for sale. The facility is currently permitted for three electric grinders, two trommel screens, roadways, and material handling. The trommel screens at the facility have a throughput limitation of 69 tons/hr and the grinders cannot be used without the screen at the end. The particulate emissions at the facility are predominately fugitive in nature.

This permit will include another trommel screen and a grinder.

3. Facility Emissions and Attainment Status:

Facility emissions are primarily fugitive particulate matter. The facility implemented an odor management plan in response to an Ohio EPA request in 2003. The voluntary plan was updated in November 2011 to ensure continued compliance with OAC 3745-15-07. The odor management plan will not be included as a requirement in this permit.

Current facility particulate emission limitations are 63.88 ton/yr (fugitive).

4. Source Emissions:

Source emissions are primarily PE and PM10. Source emissions are subject to OAC 3745-31-05(D), 3745-17-07(A) and 3745-17-08(B).

Trommel Screen

PE

Max capacity of the screen x RACM document (OEPA) emission factor

Max capacity of the screen x RACM document (OEPA) emission factor x 8760 hours/yr x 1 ton/2000 lbs

Maximum capacity of the screen = 69 tons/hr

$69 \text{ ton/hr} \times 0.35 \text{ lb PE/ton material} = 24.15 \text{ lb/hr}$

$69 \text{ ton/hr} \times 0.35 \text{ lb PE/ton material} \times 8760 \text{ hour/yr} \times 1 \text{ ton/2000 lb} = 105.78 \text{ ton/yr}$

PM10

The RACM document does not contain an emission factor for PM10 from wood grinding. North Carolina's Department of Environment and Natural Resources performed a study looking at air emissions from the lumber industry in July 1998. The study provides emission factor estimates for a variety of wood wastes. (The study may be found online at <http://daq.state.nc.us/monitor/eminv/industry/wood/woodwast.pdf>.) Using the study by North Carolina, a conservative estimate of PM10 emissions from wood waste is 23.8%.

To develop the PM10 emission factor, multiply the PE emission factor by 23.8% (0.0833 lb PM10/ton)

$69 \text{ ton/hr} \times 0.0833 \text{ lb PM10/ton} = 5.75 \text{ lb/hr PM10}$



$$69 \text{ ton/hr} \times 0.0833 \text{ lb/ton} \times 8760 \text{ hours/yr} \times 1 \text{ ton/2000 lbs} = 25.17 \text{ ton/yr}$$

The trommel screens have the same emission factors as the grinders as a single fugitive source.

Assuming the inherent moisture of the material going to the screens after the grinding (where watering is control) has a control efficiency of 80%, recalculate emissions:

PE

$$24.15 \text{ lb/hr} \times (1-80\%) = 4.83 \text{ lb/hr}$$

$$105.78 \text{ ton/yr} \times (1-80\%) = 21.16 \text{ ton/yr}$$

PM10

$$5.75 \text{ lb/hr} \times (1-80\%) = 1.15 \text{ lb/hr}$$

$$25.17 \text{ ton/yr} \times (1-80\%) = 5.03 \text{ ton/yr}$$

The facility is requesting that annual hours of operation be restricted to 2500 hours per year. The facility will install a meter to show hours of operation.

PE

$$4.83 \text{ lb/hr} \times 2500 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} = 6.04 \text{ ton/yr}$$

PM10

$$1.15 \text{ lb/hr} \times 2500 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} = 1.44 \text{ ton/yr}$$

Electric Grinder

PE

Max capacity of the grinder x RACM document (OEPA) emission factor

Max capacity of the grinder x RACM document (OEPA) emission factor x 8760 hours/yr x 1 ton/2000 lbs

Maximum capacity of the grinder = 69 tons/hr

$$69 \text{ ton/hr} \times 0.35 \text{ lb PE/ton material} = 24.15 \text{ lb/hr}$$

$$69 \text{ ton/hr} \times 0.35 \text{ lb PE/ton material} \times 8760 \text{ hour/yr} \times 1 \text{ ton/2000 lb} = 105.78 \text{ ton/yr}$$

PM10

The RACM document does not contain an emission factor for PM10 from wood grinding. North Carolina's Department of Environment and Natural Resources performed a study looking at air emissions from the lumber industry in July 1998. The study provides emission factor estimates for a variety of wood wastes. (The study may be found online at <http://daq.state.nc.us/monitor/eminv/industry/wood/woodwast.pdf>.) Using the study by North Carolina, a conservative estimate of PM10 emissions from wood waste is 23.8%.

To develop the PM10 emission factor, multiply the PE emission factor by 23.8% (0.0833 lb PM10/ton)

$$69 \text{ ton/hr} \times 0.0833 \text{ lb PM10/ton} = 5.75 \text{ lb/hr PM10}$$

$$69 \text{ ton/hr} \times 0.0833 \text{ lb/ton} \times 8760 \text{ hours/yr} \times 1 \text{ ton/2000 lbs} = 25.17 \text{ ton/yr}$$

Assuming the dust suppression control equipment during the grinding process has a control efficiency of 80%, recalculate emissions:

PE

$$24.15 \text{ lb/hr} \times (1-80\%) = 4.83 \text{ lb/hr}$$

$$105.78 \text{ ton/yr} \times (1-80\%) = 21.17 \text{ ton/yr}$$



PM10

$$5.75 \text{ lb/hr} \times (1-80\%) = 1.15 \text{ lb/hr}$$

$$21.17 \text{ ton/yr} \times (1-80\%) = 5.03 \text{ ton/yr}$$

Transfer Points on Electric Grinders

PE and PM-10

Max hourly capacity of the shredder x AP42 Emission Factor

Max hourly capacity of the shredder x AP42 Emission Factor x 8760 hr/yr x 1 ton/2000lbs

The AP-42 emission factor is derived from AP-42 13.2.4-4 (November 2006) Equation 1

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

k= 0.74 for PE and 0.35 for PM-10

U = 8.7mph for Central Ohio

M = 11% for miscellaneous fill materials

PE

$$E = 0.74 \times 0.0032 \times [(8.7/5)^{1.3}/(11/2)^{1.4}]$$

$$E = 0.0004 \text{ lb/ton}$$

$$69 \text{ ton/hr} \times 0.0004 \text{ lb/ton} = 0.03 \text{ lb/hr}$$

$$\text{Multiply by 2 transfer points} = 0.06 \text{ lb/hr}$$

$$69 \text{ ton/hr} \times 0.0004 \text{ lb/ton} \times 2 \text{ transfer points} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} = 0.24 \text{ ton/yr}$$

PM10

$$E = 0.35 \times 0.0032 \times [(8.7/5)^{1.3}/(11/2)^{1.4}]$$

$$E = 0.0002 \text{ lb/ton}$$

$$69 \text{ ton/hr} \times 0.0002 \text{ lb/ton} = 0.01 \text{ lb/hr}$$

$$\text{Multiply by 2 transfer points} = 0.02 \text{ lb/hr}$$

$$69 \text{ ton/hr} \times 0.0002 \text{ lb/ton} \times 2 \text{ transfer points} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} = 0.12 \text{ ton/yr}$$

The electric grinder PE and PM10 emissions are 4.83 lb/hr (21.40 ton/yr) and 1.17 lb/hr (5.15 ton/yr) respectively.

The facility is requesting federally enforceable restrictions to avoid Title V. The facility is requesting that annual hours of operation be restricted to 2500 hours per year. The facility has installed a meter to show hours of operation.

PE

$$4.83 \text{ lb/hr} \times 2500 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} = 6.04 \text{ ton/yr}$$

$$0.06 \text{ lb/hr (from the transfer points)} \times 2500 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} = 0.08 \text{ ton/yr}$$

$$6.04 \text{ ton/yr} + 0.08 \text{ ton/yr} = 6.12 \text{ ton/yr from the grinder}$$

PM10

$$1.15 \text{ lb/hr} \times 2500 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} = 1.44 \text{ ton/yr}$$

$$0.02 \text{ lb/hr (from the transfer points)} \times 2500 \text{ hr/yr} \times 1 \text{ ton/2000 lbs} = 0.03 \text{ ton/yr}$$

$$1.44 \text{ ton/yr} + 0.03 \text{ ton/yr} = 1.47 \text{ ton/yr from the grinder}$$

5. Conclusion:

Permit monitoring and recordkeeping, while maintaining compliance with other terms and conditions in the



permit, should ensure compliance with applicable state and federal rules.

6. Please provide additional notes or comments as necessary:

None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
<u>PE</u>	<u>12.16</u>
<u>PM10</u>	<u>2.91</u>

PUBLIC NOTICE

1/7/2013 Issuance of Draft Air Pollution Permit-To-Install and Operate

Ohio Mulch Supply Inc.

2140 Advance Ave,

Columbus, OH 43207

Franklin County

FACILITY DESC.: All Other Miscellaneous Wood Product Manufacturing

PERMIT #: P0110212

PERMIT TYPE: Initial Installation

PERMIT DESC: Installation and operation of a Trommel screen and grinder

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Barbara Walker, Ohio EPA DAPC, Central District Office, 50 West Town Street, 6th Floor P.O. Box 1049, Columbus, OH 43216-1049. Ph: (614)728-3778



DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Ohio Mulch Supply Inc.**

Facility ID:	0125042476
Permit Number:	P0110212
Permit Type:	Initial Installation
Issued:	1/7/2013
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



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

for
Ohio Mulch Supply Inc.

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	4
2. Who is responsible for complying with this permit?	4
3. What records must I keep under this permit?	4
4. What are my permit fees and when do I pay them?.....	4
5. When does my PTIO expire, and when do I need to submit my renewal application?	4
6. What happens to this permit if my project is delayed or I do not install or modify my source?	5
7. What reports must I submit under this permit?	5
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?	5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?	6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?	6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently?	6
13. Can I transfer this permit to a new owner or operator?.....	7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?	7
15. What happens if a portion of this permit is determined to be invalid?	7
B. Facility-Wide Terms and Conditions.....	8
C. Emissions Unit Terms and Conditions	10
1. F011, 720 Hornett Electric Trommel Screen	11
2. F012, Morbark 4600 electric grinder.....	17



Draft Permit-to-Install and Operate

Ohio Mulch Supply Inc.

Permit Number: P0110212

Facility ID: 0125042476

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0125042476
Application Number(s): A0044706
Permit Number: P0110212
Permit Description: Installation and operation of a Trommel screen and grinder
Permit Type: Initial Installation
Permit Fee: \$1,800.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 1/7/2013
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Ohio Mulch Supply Inc.
2140 Advance Ave
Columbus, OH 43207

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

Scott J. Nally
Director



Draft Permit-to-Install and Operate

Ohio Mulch Supply Inc.

Permit Number: P0110212

Facility ID: 0125042476

Effective Date: To be entered upon final issuance

Authorization (continued)

Permit Number: P0110212

Permit Description: Installation and operation of a Trommel screen and grinder

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

Emissions Unit ID:	F011
Company Equipment ID:	720 Hornett Electric Trommel Screen
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F012
Company Equipment ID:	Morbark 4600 electric grinder
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install and Operate

Ohio Mulch Supply Inc.

Permit Number: P0110212

Facility ID: 0125042476

Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions



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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

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

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



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

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

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

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

7. What reports must I submit under this permit?

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

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

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

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

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

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



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

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Central 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 submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

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

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

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.



Draft Permit-to-Install and Operate

Ohio Mulch Supply Inc.

Permit Number: P0110212

Facility ID: 0125042476

Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



Draft Permit-to-Install and Operate

Ohio Mulch Supply Inc.

Permit Number: P0110212

Facility ID: 0125042476

Effective Date: To be entered upon final issuance

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.



Draft Permit-to-Install and Operate

Ohio Mulch Supply Inc.

Permit Number: P0110212

Facility ID: 0125042476

Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. F011, 720 Hornett Electric Trommel Screen

Operations, Property and/or Equipment Description:

Electric 720 Hornetttrommel screen

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)a, b)(2)a., d)(1), and e)(3)

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(D) (Synthetic minor to avoid Title V)	Particulate emissions shall not exceed 4.83 pounds per hour and 6.04 tons per year. Particulate matter 10 microns in diameter or less (PM10) shall not exceed 1.15 pound per hour and 1.44 ton per year. See b)(2)a.
b.	OAC rule 3745-17-07(B)	Visible emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average.
c.	OAC rule 3745-17-08(B)	Reasonably available control measures for the screener. See b)(2)b.



(2) Additional Terms and Conditions

- a. The maximum annual operating hours for this emissions unit shall not exceed 2,500 hours, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	208.3
1-2	416.7
1-3	625.0
1-4	833.3
1-5	1,041.7
1-6	1,250.0
1-7	1,458.3
1-8	1,666.7
1-9	1,875.0
1-10	2,083.3
1-11	2,291.7
1-12	2,500.0

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

- b. Compliance with OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B) shall be demonstrated by applying water at sufficient frequencies to maintain the material in a moist condition and ensure compliance with the opacity limitations. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance
- c. The material handling operation(s) that are covered by this permit and subject to the following requirements are listed below:

<u>Material Handling Operation(s)</u>	<u>Control Measure(s)</u>
Each load-in operation	minimize free-fall distance
Each load-out operation	minimize free-fall distance

For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary..



c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

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

- a. the operating hours for each month; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month

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

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

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

- (3) For each material processing and handling operation that is not adequately enclosed, the permittee shall perform inspections of such material processing and handling operations in accordance with the following minimum frequencies in order to determine if control measures need to be implemented:



- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Central District Office).

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. Emission Limitation:
4.83 lb/hr of particulate emissions (PE)

Applicable Compliance Method:

The hourly PE emission limitation from the grinding process was developed by multiplying the maximum capacity of the grinder (69 tons/hr) by the emission factor from Ohio EPA's "Reasonably Available Control Measures (RACM)" document (0.35 lb PE/ton of material). The result was then multiplied by control efficiency of the control equipment of 80%.

- b. Emission Limitation:
6.04 ton/yr of particulate emissions (PE)

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum number of operating hours permitted under b)(2)a. and a conversion factor of 1 ton/2,000 lbs. Compliance with the annual emission limitation will be assumed provided compliance is maintained with the hourly emission limitation and b)(2)a.

- c. Emission Limitation:
1.15 lb/hr of particulate matter 10 microns in diameter or less (PM10)

Applicable Compliance Method:

The PM10 emission limitation from the grinding process was developed by determining an emission factor from "Estimating Emissions from Generation and Combustion of 'Waste' Wood (July 1998)" and then multiplying it by the rated capacity of the grinder of 69 tons of material/hr. This result was then multiplied



by a control efficiency of the control equipment of 80%. The emission factor was developed by using the worst case scenario of PM10 emissions from waste wood (23.8% of PE emissions) and then multiplying it by the PE emission factor.

- d. Emission Limitation:
1.44 ton/yr of particulate matter 10 microns in diameter or less (PM10)

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum number of operating hours permitted under b)(2)a. and a conversion factor of 1 ton/2,000 lbs. Compliance with the annual emission limitation will be assumed provided compliance is maintained with the hourly emission limitation and b)(2)a.

- e. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

Compliance with the limitation for visible emissions of fugitive dust shall be determined through visible emissions observations performed in accordance U.S. EPA Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) None.



2. F012, Morbark 4600 electric grinder

Operations, Property and/or Equipment Description:

Morbark 4600 electric grinder

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)a., b)(2)a., d)(1), and e)(3)

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(D)	Particulate emissions (PE) shall not exceed 4.89 pound per hour and 6.12 tons per year. Particulate matter 10 microns in diameter or less (PM10) shall not exceed 1.17 pound per hour and 1.47 ton per year. See b)(2)a.
b.	OAC rule 3745-17-07(B)	Visible emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average.
c.	OAC rule 3745-17-08(B)	Reasonably available control measures for the grinder and transfer points. See b)(2)b.



(2) Additional Terms and Conditions

- a. The maximum annual operating hours for this emissions unit shall not exceed 2,500 hours, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	208.3
1-2	416.7
1-3	625.0
1-4	833.3
1-5	1,041.7
1-6	1,250.0
1-7	1,458.3
1-8	1,666.7
1-9	1,875.0
1-10	2,083.3
1-11	2,291.7
1-12	2,500.0

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

- b. Compliance with OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B) shall be demonstrated by applying water at sufficient frequencies to maintain the material in a moist condition and ensure compliance with the opacity limitations. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- c. The material handling operation(s) that are covered by this permit and subject to the following requirements are listed below:

<u>Material Handling Operation(s)</u>	<u>Control Measure(s)</u>
Each load-in operation	minimize free-fall distance
Each load-out operation	minimize free-fall distance

- d. For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.



c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

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

- a. the operating hours for each month; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.

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

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

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

- (3) For each material processing and handling operation that is not adequately enclosed, the permittee shall perform inspections of such material processing and handling operations in accordance with the following minimum frequencies in order to determine if control measures need to be implemented:



- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Central District Office).

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. Emission Limitation:
4.89 lb/hr of particulate emissions (PE)

Applicable Compliance Method:

The hourly emission limitation was developed by adding the emission limitation from the grinding process and from the two transfer points.

The PE emission limitation from the grinding process was developed by multiplying the maximum capacity of the grinder (69 tons/hr) by the emission factor from Ohio EPA's "Reasonably Available Control Measures (RACM)" document (0.35 lb PE/ton of material). The result was then multiplied by control efficiency of the control equipment of 80%.

The PE emission limitation from the transfer points was developed by using the AP-42 emission factor of 0.0004 lb PE/ton of material (Section 13.2.4, November 2006), multiplying it by the rated capacity of the grinder (69 tons/hr), and multiplying by two (the number of transfer points). The emission factor was developed using Equation 1 where:

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

k = 0.74 for PE

U = 8.7 mph

M = 11% moisture of miscellaneous fill materials

- b. Emission Limitation:
6.12 ton/yr of particulate emissions (PE)



Applicable Compliance Method:

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum number of operating hours permitted under b)(2)a. and a conversion factor of 1 ton/2,000 lbs. Compliance with the annual emission limitation will be assumed provided compliance is maintained with the hourly emission limitation and b)(2)a.

c. Emission Limitation:

1.17 lb/hr of particulate matter 10 microns in diameter or less (PM10)

Applicable Compliance Method:

The hourly emission limitation was developed by adding the emission limitation from the grinding process and from the two transfer points.

The PM10 emission limitation from the grinding process was developed by determining an emission factor from "Estimating Emissions from Generation and Combustion of 'Waste' Wood (July 1998)" and then multiplying it by the rated capacity of the grinder of 69 tons of material/hr. This result was then multiplied by a control efficiency of the control equipment of 80%. The emission factor was developed by using the worst case scenario of PM10 emissions from waste wood (23.8% of PE emissions) and then multiplying it by the PE emission factor.

The PM10 emission limitation from the transfer points was developed by using the AP42 emission factor of 0.0002 PM10/ton of material (Section 13.2.4 (November 2006), multiplying it by the rated capacity of the shredder, and multiplying by three (the number of transfer points). The emission factor was developed using Equation 1 where:

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

k = 0.35 for PM10

U = 8.7 mph

M = 11% moisture of soil

d. Emission Limitation:

1.47 ton/yr of particulate matter 10 microns in diameter or less (PM10)

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum number of operating hours permitted under b)(2)a. and a conversion factor of 1 ton/2,000 lbs. Compliance with the annual emission limitation will be assumed provided compliance is maintained with the hourly emission limitation and b)(2)a.

e. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.



Draft Permit-to-Install and Operate

Ohio Mulch Supply Inc.

Permit Number: P0110212

Facility ID: 0125042476

Effective Date: To be entered upon final issuance

Applicable Compliance Method:

Compliance with the limitation for visible emissions of fugitive dust shall be determined through visible emissions observations performed in accordance U.S. EPA Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

- (1) None.