



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
FRANKLIN COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 01-08935**

**Fac ID: 0125042476**

**DATE: 5/10/2005**

Ohio Mulch  
Mike Moeller  
2140 Advance Ave  
Columbus, OH 43207

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

cc: USEPA

CDO



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**Permit To Install  
Terms and Conditions**

**Issue Date: 5/10/2005  
Effective Date: 5/10/2005**

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**FINAL PERMIT TO INSTALL 01-08935**

Application Number: 01-08935  
Facility ID: 0125042476  
Permit Fee: **\$2500**  
Name of Facility: Ohio Mulch  
Person to Contact: Mike Moeller  
Address: 2140 Advance Ave  
Columbus, OH 43207

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**2140 Advance Ave  
Columbus, Ohio**

Description of proposed emissions unit(s):  
**Vermeer HG6000 grinder.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

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representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

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and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

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#### 14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

#### 15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

### B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

| <u>Pollutant</u> | <u>Tons Per Year</u> |
|------------------|----------------------|
| PE               | 13.5                 |
| NO <sub>x</sub>  | 22.5                 |
| SO <sub>2</sub>  | 7.8                  |
| CO               | 13.0                 |
| OC               | 3.8                  |

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                  | <u>Applicable Rules/Requirements</u> |
|--|--------------------------------------|
| P101 - Portable Mulch Grinder #1 - 135 ton/hr (Vermeer HG6000) | OAC rule 3745-31-05(A)(3)            |
|  | OAC rule 3745-17-11 (B)(5)(b)        |
|  | OAC rule 3745-17-07(B)(1)            |
|  | OAC rule 3745-17-07 (A)              |
|  | OAC rule 3745-17-08(B)               |
|  | OAC rule 3745-18-06(G)               |
|  | OAC rule 3745-21-08(B)               |
| 630 hp diesel engine (modification of PTI 01-08446)            | OAC rule 3745-31-05(A)(3)            |
|  | OAC rule 3745-23-06(B)               |
|  | OAC rule 3745-35-07(B)               |

(synthetic minor to avoid Title V)

| Applicable Emissions Limitations/Control Measures  |  |
|--|--|
| Particulate emissions (PE), as fugitive dust, from the grinder shall not exceed 3.24 pounds PM per hour.   | 3.6 lbs Carbon monoxide (CO); and 1.0 lb Volatile organic compound (VOC).  |
| Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.2.a through A.2.d.                   | See sections A.2.e and B.2 below.<br><br>Compliance with this rule also includes compliance with OAC rule 3745-17-11(B)(5)(b), OAC rule 3745-17-07(A) and OAC rule 3745-35-07(B).  |
| Visible PE of fugitive dust shall not exceed 10 percent opacity, as a 3-minute average.  | PE shall not exceed 0.35 lb/MMBTU of actual heat input. See section A.2.f below.   |
| Compliance with this rule also includes compliance with OAC rules 3745-35-07(B).   | Visible PE from the diesel engine exhaust stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.  |
| The emission limitation specified in this rule is less stringent than, or equal in stringency to, the emissions limitation established pursuant to 3745-31-05(A)(3). | Exempt, pursuant to OAC rule 3745-18-06(B) because rated heat input capacity is less than 10 mmBtu/hr.   |
| The emission limitation specified in this rule is less stringent than, or equal in stringency to, the emissions limitation established pursuant to 3745-31-05(A)(3). | See section A.2.g.<br><br>See section A.2.h.   |
| Hourly emissions from the diesel engine exhaust shall not exceed the following:  | PE, as fugitive dust, from the grinder shall not exceed 5.6 tons PE per rolling, 12-month period.  |
| 0.43 lb PE;<br>2.1 lbs Sulfur dioxide (SO <sub>2</sub> );<br>6.2 lbs Nitrogen oxide (NO <sub>x</sub> );  | Emissions from the diesel engine exhaust shall not exceed the following during any rolling, 12 - month period:<br><br>0.73 ton PE;<br>3.7 tons SO <sub>2</sub> ;<br>10.7 tons NO <sub>x</sub> ;<br>6.2 tons CO; and<br>1.8 tons VOC. |

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**Ohio 1**

**PTI A**

**Issued: 5/10/2005**

Emissions Unit ID: **P101**

See sections A.2.i and B.1  
below.

**2. Additional Terms and Conditions**

**2.a** The material handling operation that is covered by this permit and subject to the above-mentioned requirements are listed below:

- Load in to hopper
- Grinder
- Conveyor belt

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

| <u>material handling operation</u> | <u>control measure</u> |
|------------------------------------|------------------------|
| Load in to hopper                  | Moisture               |
| Grinder                            | Moisture               |
| Conveyor belt                      | Moisture               |

The permittee shall also minimize the vertical free fall distance and the horizontal distance of the processed material in order to minimize the generation of fugitive emissions. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c** For each material handling operation that is not adequately enclosed, the above-identified control measures 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 is necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measure is unnecessary.

**2.d** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.

**2.e** The hourly emission limitations for the engine specified in Section A.1 reflect the emissions unit's potential to emit without controls for these pollutants. No additional

Emissions Unit ID: **P101**

monitoring, record keeping or reporting requirements are necessary to ensure compliance with these emission limitations.

- 2.f** This limitation reflects the current State Implementation Plan (SIP) for Ohio approved by the U.S. EPA. Ohio EPA has requested that the limitation be modified to 0.062 lb PE/mmBtu of actual heat input but the new limitation will not become effective until it is approved by U.S. EPA as a revision to the Ohio SIP for particulate matter.
- 2.g** The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.
- 2.i** This permit supercedes PTI 01-08446 issued April 23, 2002 for emissions unit F001 Portable Diamond 2 tub grinder with 800 hp diesel engine and represents a net allowable increase of 1.4 tons PE per year with a decrease of 10.7 tons NO<sub>x</sub>, 0.7 ton SO<sub>2</sub>, 2.4 tons CO, and 0.8 ton VOC per year. The requirements for emissions unit P101 Portable Mulch Grinder #1 in this PTI shall replace those in PTI 01-08446, once this permit is issued final. This shutdown is not required for the purpose of netting out of the New Source/Non Attainment Review.

## **B. Operational Restrictions**

1. The permittee has requested a federally enforceable limitation on the annual operating hours for purposes of limiting potential to emit to avoid possible future Title V applicability. Therefore, the maximum annual operating hours for emissions unit P101, shall not exceed 3,432 hours based upon a rolling 12-month summation.

To ensure enforceability during the first 12 calendar months of operation, following the issuance

of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

| <u>Months</u> | <u>Maximum Allowable<br/>Cumulative Operating Hours</u> |
|---------------|---|
| 1             | 286   |
| 1-2           | 572   |
| 1-3           | 858   |
| 1-4           | 1,144   |
| 1-5           | 1,430   |
| 1-6           | 1,716   |
| 1-7           | 2,002   |
| 1-8           | 2,288   |
| 1-9           | 2,574   |
| 1-10          | 2,860   |
| 1-11          | 3,146   |
| 1-12          | 3,432   |

After the first 12 calendar months of operation following the startup of emissions unit P101, compliance with the annual operating hours limitation shall be based upon a rolling 12-month summation of the maximum cumulative fuel use (in gallons).

- The permittee shall only burn diesel fuel, containing no greater than 0.5% sulfur by weight, in this emissions unit.

**C. Monitoring and/or Recordkeeping Requirements**

- Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

| <u>material handling operation</u> | <u>minimum inspection frequency</u> |
|------------------------------------|-------------------------------------|
| Load in to hopper                  | Daily, when operating               |
| Grinder                            | Daily, when operating               |
| Conveyor belt                      | Daily, when operating               |

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

Emissions Unit ID: P101

2. The permittee may, upon receipt of written approval from the Ohio EPA Central District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
3. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measure was implemented;
  - d. on a calendar quarter basis, the total number of days the control measure was implemented; and
  - e. the name of the person reporting each observation.
4. For each day during which the permittee burns a fuel other than diesel fuel containing no greater than 0.5% sulfur by weight in this emissions unit, the permittee shall maintain a record of the type, quantity, and the sulfur content of fuel burned in this emissions unit.
5. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month. The operations log shall be maintained on site.

#### **D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:
  - a. all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels;

- b. each day when visible emissions were observed, and at which location;
- c. each day during which an inspection was not performed by the required frequency; and
- d. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

2. The permittee shall submit a deviation report for each day when a fuel other than 0.5% sulfur diesel fuel was burned in this emissions unit. This report shall be submitted within 30 days after the deviation occurred.
3. The permittee shall submit annual reports that specify the total emissions of PE, SO<sub>x</sub>, NO<sub>x</sub>, VOC, and CO from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitations:  
PE, as fugitive dust, from the Vermeer HG6000 grinder shall not exceed 3.24 pounds per hour.  
  
Applicable Compliance Method:  
Compliance shall be based on a RACM emission factor of 0.024 lb PE/ton wood times the maximum process weight rate of 135 tons/hr and to equal 3.24 lb PE/hr.
  - b. Emission Limitations:  
Visible PE of fugitive dust shall not exceed 10 percent opacity, as a 3- minute average.  
  
Applicable Compliance Method:  
If required, compliance shall be determined through visible emission observations performed in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such

Emissions Unit ID: P101

Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

- c. Emission Limitations:  
 Hourly emissions from the diesel engine exhaust shall not exceed 0.43 lb PE and 2.1 lbs SO<sub>2</sub>.

Applicable Compliance Method:

The above hourly limitations were established by multiplying the hourly heat input rating for the diesel generator of 4.25 MMBTU/hr by the appropriate emission factor below from U.S. EPA's AP-42, Volume I, Fifth Edition, Section 3.4, "Large Stationary diesel and All Stationary Dual-fuel Engines", Table 3.4-1, October 1996.

| <u>Pollutant</u> | <u>Emission Factor</u> |
|------------------|------------------------|
| PE               | 0.1 lb/MMBTU           |
| SO <sub>2</sub>  | 1.01 (0.5) lb/MMBTU    |

If required, emissions testing shall be conducted using the following test methods: 40 CFR Part 60, Appendix A, Methods 1-4 and Method 5 for PE and Method 6C for SO<sub>2</sub>. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.

- d. Emission Limitations:  
 Hourly emissions from the diesel engine exhaust shall not exceed 6.2 lbs NO<sub>x</sub>, 3.6 lbs CO and 1.0 lb VOC.

Applicable Compliance Method:

The above hourly limitations were derived from the Rated Brake Power of 470 kW/hr multiplied by the corresponding Tier 2 emission factor presented below from 40CFR Part 89 Subpart B, "Control of Emissions from New and In-Use Non Road Compression-Ignition Engines", Table 1, February 3, 2005 and multiplied by 1 lb/454g.

| <u>Pollutant</u> | <u>Emission Factor</u> |
|------------------|------------------------|
| NO <sub>x</sub>  | 6 g/Kw-hr              |
| CO               | 3.5 g/Kw-hr            |
| VOC              | 1.0 g/Kw-hr            |

If required, emissions testing shall be conducted using the following test methods: 40 CFR Part 60, Appendix A, Methods 1-4 and Method 7E for NO<sub>x</sub>, Method 10 for CO and Methods 18, 25, or 25A for VOC. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.

- e. Emission Limitations:  
During any rolling, 12 - month period, emissions from the diesel engine exhaust shall not exceed 0.73 ton PE, 3.7 tons SO<sub>2</sub>, 10.7 tons NO<sub>x</sub>, 6.2 tons CO, and 1.8 tons VOC.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be based on record keeping in section C.5.b, from which the rolling, 12-month operating hours may be multiplied by the maximum hourly emission rate from in section E.1.d, above.

- f. Emission Limitation:  
PE from the engine exhaust shall not exceed 0.35 lb/MMBTU of actual heat input.

Applicable Compliance Method:

Compliance shall be determined based on the emission factor of 0.35 lb/MMBTU specified in section A.1. This limitation reflects the current State Implementation Plan (SIP) for Ohio approved by the U.S. EPA.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

- g. Emission Limitation:  
Visible PE from the diesel engine exhaust stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures are specified in OAC rule 3745-17-03(B)(1).

- h. Emission Limitation:  
PE, as fugitive dust, from the grinder shall not exceed 5.6 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be based on record keeping in section C.5.b, from which the annual operating hours may be multiplied times the 3.24 lb PE pounds per hour.

## F. Miscellaneous Requirements

1. Pursuant to OAC rule 3745-31-03(A)(1)(p)(i), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a permit to install (PTI) providing the following criteria are met:
  - a. the portable emissions unit is equipped with the best available control technology for such portable emissions unit;
  - b. the portable emissions unit is operating pursuant to a currently effective permit to operate (PTO);
  - c. the applicant has provided proper notice of intent to relocate the portable emissions unit to CDO and the appropriate field office having jurisdiction over the new site, within a minimum of 30 days prior to the scheduled relocation; and
  - d. in CDO and the appropriate field office's judgement, the proposed site is acceptable under OAC rule 3745-15-07.

In the alternative, pursuant to OAC rule 3745-31-03(A)(1)(p)(ii), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a PTI, providing the following criteria of OAC rule 3745-31-05(E) are met:

- a. the portable emissions unit permittee possesses an Ohio EPA PTI, PTO or registration status;
- b. the portable emissions unit is equipped with best available technology;
- c. the portable emissions unit owner has identified the proposed site to Ohio EPA;
- d. Ohio EPA has determined that the portable emissions unit, at the proposed site, will have an acceptable environmental impact;
- e. a public notice, consistent with OAC Chapter 3745-47, is published in the county where the proposed site is located;
- f. the owner of the proposed site has provided the portable emissions unit owner with approval or equivalent declaration that it is acceptable to the site owner to move the portable emissions unit to this proposed site; and
- g. the portable emissions unit owner has provided Ohio EPA with 15 days written notice of the relocation.

Any site approvals issued by the Ohio EPA, pursuant to OAC rule 3745-31-03(A)(1)(p)(ii), shall be valid for no longer than 3 years and are subject to renewal.

In order for the CDO and the appropriate field office having jurisdiction over the new site to determine compliance with all of the above criteria, the permittee of the portable or mobile emissions unit must file a " Notice of Intent to Relocate", within the specified time frame (30 or 15 days) prior to the relocation of the emissions unit with CDO and the appropriate field office having jurisdiction over the new site. Upon receipt of the notice, CDO, and/or appropriate field office having jurisdiction over the new site, will evaluate the request in accordance with the above criteria.

Failure to submit said notification and to receive Ohio EPA approval prior to relocation of the emissions unit may result in fines and civil penalties.

Pursuant to OAC rule 3745-31-05(F), the Director may modify the site approval to add or delete certain portable sources or add or delete certain terms and conditions as appropriate.

2. Terms in section B.1, C.5 and D.3 of this permit are federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property,<br/>and/or Equipment</u>                     | 01-08753) | <u>Applicable Rules/Requirements</u> |
|---|-----------|--------------------------------------|
| P102 - Portable Mulch<br>Grinder #2 - 135 tons/hr<br>(Vermeer HG6000) |           | OAC rule 3745-31-05(A)(3)            |
|   |           | OAC rule 3745-17-07 (B)(1)           |
|   |           | OAC rule 3745-17-08(B)               |
| 630 hp diesel engine<br>(modification of PTI                          |           | OAC rule 3745-31-05(A)(3)            |

|   | Applicable Emissions<br><u>Limitations/Control Measures</u>   |   |
|---|---|---|
|   |   | 1.0 lb VOC.   |
|   |   | See sections A.2.e and B.2 below.   |
|   | PE, as fugitive dust, from the grinder shall not exceed 3.24 pounds per hour.   | The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(b), 3745-17-07(A) and OAC rule 3745-35-07(B). |
|   | Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.2.a through A.2.d.                              | PE shall not exceed 0.35 lb/MM BTU of actual heat input. See section A.2.f below.   |
| OAC rule 3745-17-11<br>(B)(5)(b)                                | Visible PE of fugitive dust shall not exceed 10 percent opacity, as a 3-minute average.   | Visible PE from the diesel engine exhaust stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.                         |
| OAC rule 3745-17-07<br>(A)(1)                                   | Compliance with this rule also includes compliance with OAC rules 3745-35-07(B).  | Exempt, pursuant to OAC rule 3745-18-06(B) because rated heat input capacity is less than 10 MMBTU/hr.  |
|   | The emission limitation specified in this rule is less stringent than, or equal in stringency to, the emissions limitation established pursuant to 3745-31-05(A)(3).            | See section A.2.g.  |
| OAC rule 3745-18-06(B)  |   | See section A.2.h.  |
|   | The emission limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).                               | PE, as fugitive dust, from the grinder shall not exceed 6.2 tons per rolling, 12-month period.  |
| OAC rule 3745-21-08(B)  |   | Emissions from the diesel engine exhaust shall not exceed the following during any rolling, 12 - month period:  |
| OAC rule 3745-23-06(B)  |   | 0.81 ton PE;<br>4.1 tons SO <sub>2</sub> ;<br>11.8 tons NO <sub>x</sub> ;<br>6 tons CO; and<br>2.0 tons VOC.  |
| OAC rule 3745-35-07(B)<br>(synthetic minor to avoid<br>Title V) | Hourly emissions from the diesel engine exhaust shall not exceed the following:<br><br>0.43 lb PE;<br>2.1 lbs SO <sub>2</sub> ;<br>6.2 lbs NO <sub>x</sub> ;<br>3.6 lbs CO; and | See sections A.2.i and B.1 below.   |

**2. Additional Terms and Conditions**

**2.a** The material handling operation that is covered by this permit and subject to the above-mentioned requirements are listed below:

Load in to hopper  
Grinder  
Conveyor belt

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

| <u>material handling operation</u> | <u>control measure</u> |
|------------------------------------|------------------------|
| Load in to hopper                  | Moisture               |
| Grinder                            | Moisture               |
| Conveyor belt                      | Moisture               |

The permittee shall also minimize the vertical free fall distance and the horizontal distance of the processed material in order to minimize the generation of fugitive emissions. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c** For each material handling operation, the above-identified control measures 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 is necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measure is unnecessary.

**2.d** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of 3745-31-05.

**2.e** The hourly PE, NO<sub>x</sub>, SO<sub>2</sub>, CO and VOC emission limitations from the 630 hp engine specified in Section A.1 reflect the emissions unit's potential to emit without controls for these pollutants. No additional monitoring, record keeping or reporting requirements are

necessary to ensure compliance with these emission limitations.

- 2.f** This limitation reflects the current State Implementation Plan (SIP) for Ohio approved by the U.S. EPA. Ohio EPA has requested that the limitation be modified to 0.062 lb PE/mmBtu of actual heat input but the new limitation will not become effective until it is approved by U.S. EPA as a revision to the Ohio SIP for particulate matter.
- 2.g** The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.
- 2.i** This permit supercedes PTI 01-08753 issued September 18, 2003 for emissions unit F004 Portable Biogrinder with 800 hp diesel engine and represents a net allowable increase of 1.4 tons PE, 2.0 tons SO<sub>2</sub>, 0.8 ton CO, and 1.5 tons VOC per year with a decrease of 11.2 tons NO<sub>x</sub>, per year. The requirements in this PTI for emissions unit P102 Portable Mulch Grinder #2 shall replace those in PTI 01-08753, once this permit is issued final. This shutdown is not required for the purpose of netting out of the New Source/Non Attainment Review.

## **B. Operational Restrictions**

1. The permittee has requested a federally enforceable limitation on the annual fuel usage for purposes of limiting potential to emit to avoid possible future Title V applicability. Therefore, the maximum operating hour for emissions unit P102 shall not exceed 3,800 hours based upon a rolling 12-month summation.

### Maximum Allowable

| <u>Months</u> | <u>Cumulative Operating Hours</u> |
|---------------|-----------------------------------|
| 1             | 317                               |
| 1-2           | 634                               |
| 1-3           | 951                               |
| 1-4           | 1,268                             |
| 1-5           | 1,585                             |
| 1-6           | 1,902                             |
| 1-7           | 2,219                             |
| 1-8           | 2,536                             |
| 1-9           | 2,853                             |
| 1-10          | 3,170                             |
| 1-11          | 3,487                             |
| 1-12          | 3,800                             |

After the first 12 calendar months of operation following the startup of emissions unit P102, compliance with the annual operating hours limitation shall be based upon a rolling 12-month summation of the maximum cumulative fuel use (in gallons).

- The diesel engine shall be operated with diesel fuel with a sulfur content less than 0.5% by weight.

**C. Monitoring and/or Recordkeeping Requirements**

- Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

| <u>material handling operation</u> | <u>minimum inspection frequency</u> |
|------------------------------------|-------------------------------------|
| Load in to hopper                  | Daily, when operating               |
| Grinder                            | Daily, when operating               |
| Conveyor belt                      | Daily, when operating               |

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

- The permittee may, upon receipt of written approval from the Ohio EPA, Central District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

3. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measure was implemented;
  - d. on a calendar quarter basis, the total number of days the control measure was implemented; and
  - e. the name of the person reporting each observation.
4. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit. The permittee shall also maintain documentation of the sulfur content of the fuel received.
3. The permittee shall maintain monthly records of the following information:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month. The operations log shall be maintained on site.

#### **D. Reporting Requirements**

- 1 The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:
  - a. all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels
  - b. each day when visible emissions were observed, and at which location;
  - c. each day during which an inspection was not performed by the required frequency; and

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- d. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented;

The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

2. The permittee shall submit a deviation report for each day when a fuel other than 0.5% sulfur diesel fuel was burned in this emissions unit. This report shall be submitted within 30 days after the deviation occurred.
3. The permittee shall submit annual reports that specify the total emissions of PE, SO<sub>x</sub>, NO<sub>x</sub>, VOC, and CO from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

### E. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:  
PE, as fugitive dust, from the grinding operation shall not exceed 3.24 pounds per hour.

Applicable Compliance Method:

Compliance shall be based on a RACM emission factor of 0.024 lb PE/ton wood times the maximum process weight rate of 135 tons/hr and to equal 3.24 lb PE/hr.

- b. Emission Limitation:  
Visible PE of fugitive dust shall not exceed 10 percent opacity, as a 3- minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

- c. Emissions Limitation:  
Hourly emissions from the diesel engine exhaust shall not exceed 0.43 lb PE and 2.1 lbs SO<sub>2</sub>.

Applicable Compliance Method:

The above hourly limitations were established by multiplying the hourly heat input rating for the diesel generator of 4.25 MMBTU/hr by the appropriate emission factor below from U.S. EPA's AP-42, Volume I, Fifth Edition, Section 3.4, "Large Stationary diesel and All Stationary Dual-fuel Engines", Table 3.4-1, October 1996.

| <u>Pollutant</u> | <u>Emission Factor</u> |
|------------------|------------------------|
| PE               | 0.1 lb/MMBTU           |
| SO <sub>2</sub>  | 1.01 (0.5) lb/MMBTU    |

If required, emissions testing shall be conducted using the following test methods: 40 CFR Part 60, Appendix A, Methods 1-4 and Method 5 for PE and Method 6C for SO<sub>2</sub>.

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Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.

- d. Emissions Limitation:  
Hourly emissions from the diesel engine exhaust shall not exceed 6.2 lbs NO<sub>x</sub>, 3.6 lbs CO and 1.0 lb VOC.

Applicable Compliance Method:

The above hourly limitations were derived from the Rated Brake Power of 470 kW/hr multiplied by the corresponding Tier 2 emission factor presented below from 40CFR Part 89 Subpart B, "Control of Emissions from New and In-Use Non Road Compression-Ignition Engines", Table 1, February 3, 2005 and multiplied by 1 lb/454g.

| <u>Pollutant</u> | <u>Emission Factor</u> |
|------------------|------------------------|
| NO <sub>x</sub>  | 6 g/Kw-hr              |
| CO               | 3.5 g/Kw-hr            |
| VOC              | 1.0 g/Kw-hr            |

If required, emissions testing shall be conducted using the following test methods: 40 CFR Part 60, Appendix A, Methods 1-4 and Method 7E for NO<sub>x</sub>, Method 10 for CO and Methods 18, 25, or 25A for VOC. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA CDO.

- e. Emissions Limitation:  
During any rolling, 12 - month period, emissions from the diesel engine exhaust shall not exceed 0.81 ton PE, 11.8 tons NO<sub>x</sub>, 6.8 tons CO, 4.1 tons SO<sub>2</sub>, and 2.0 tons VOC.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be based on record keeping in section C.5.b, from which the rolling, 12-month operating hours may be multiplied by the maximum hourly emission rate from in Section E.1.d, above.

- f. Emission Limitation:  
PE from the engine exhaust shall not exceed 0.35 lb/MMBTU of actual heat input.

Applicable Compliance Method:

Compliance shall be determined based on the emission factor of 0.35 lb/MMBTU specified in Section A.1. This limitation reflects the current State Implementation Plan (SIP) for Ohio approved by the U.S. EPA.

- g. Emission Limitation:  
Visible PE from the diesel engine exhaust stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

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Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures are specified in OAC rule 3745-17-03(B)(1).

h. Emission Limitation:

PE, as fugitive dust, from the grinder shall not exceed 6.2 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be based on record keeping in section C.5.b, from which the annual operating hours are multiplied times the 3.24 lb PM<sub>10</sub> pounds per hour.

## F. Miscellaneous Requirements

1. Pursuant to OAC rule 3745-31-03(A)(1)(p)(i), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a permit to install (PTI) providing the following criteria are met:
  - a. the portable emissions unit is equipped with the best available control technology for such portable emissions unit;
  - b. the portable emissions unit is operating pursuant to a currently effective permit to operate (PTO);
  - c. the applicant has provided proper notice of intent to relocate the portable emissions unit to CDO and the appropriate field office having jurisdiction over the new site, within a minimum of 30 days prior to the scheduled relocation; and
  - d. in CDO and the appropriate field office's judgement, the proposed site is acceptable under OAC rule 3745-15-07.

In the alternative, pursuant to OAC rule 3745-31-03(A)(1)(p)(ii), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a PTI, providing the following criteria of OAC rule 3745-31-05(E) are met:

- a. the portable emissions unit permittee possesses an Ohio EPA PTI, PTO or registration status;

- b. the portable emissions unit is equipped with best available technology;
- c. the portable emissions unit owner has identified the proposed site to Ohio EPA;
- d. Ohio EPA has determined that the portable emissions unit, at the proposed site, will have an acceptable environmental impact;
- e. a public notice, consistent with OAC Chapter 3745-47, is published in the county where the proposed site is located;
- f. the owner of the proposed site has provided the portable emissions unit owner with approval or equivalent declaration that it is acceptable to the site owner to move the portable emissions unit to this proposed site; and
- g. the portable emissions unit owner has provided Ohio EPA with 15 days written notice of the relocation.

Any site approvals issued by the Ohio EPA, pursuant to OAC rule 3745-31-03 (A)(1)(p)(ii), shall be valid for no longer than 3 years and are subject to renewal.

In order for CDO and the appropriate field office having jurisdiction over the new site to determine compliance with all of the above criteria, the permittee of the portable or mobile emissions unit must file a " Notice of Intent to Relocate", within the specified time frame (30 or 15 days) prior to the relocation of the emissions unit with CDO and the appropriate field office having jurisdiction over the new site. Upon receipt of the notice, CDO, and/or appropriate field office having jurisdiction over the new site, will evaluate the request in accordance with the above criteria.

Failure to submit said notification and to receive Ohio EPA approval prior to relocation of the emissions unit may result in fines and civil penalties.

Pursuant to OAC rule 3745-31-05(F), the Director may modify the site approval to add or delete certain portable sources or add or delete certain terms and conditions as appropriate.

2. Terms in section B.1, C.5 and D.3 of this permit are federally enforceable.