

Synthetic Minor Determination and/or **Netting Determination**
Permit To Install **01-08446**

A. Source Description

Ohio Mulch employs a tub grinder with an 800 hp diesel engine and a soils grinder with 145 hp and power grid with 70 hp diesel engines for production of mulch and soil products.

B. Facility Emissions and Attainment Status

Ohio Mulch initiated operation of the tub grinder in January 1994 at a calculated 24.8 pounds of nitrogen oxides per hour and a maximum potential to emit of 108.6 tons per year. Ohio Mulch initiated operation of the soils grinder and power screen with potential emissions of 6.67 pounds per hour in January 2000 at a maximum potential to emit of 29.2 tons per year. Franklin County is an attainment area for all criteria pollutants.

C. Source Emissions

Because the combined nitrogen oxide emissions from the tub and soils grinder have the potential to exceed 100 tons per year, Ohio Mulch is proposing to restrict the operation of the tub grinder to 3,432 hours per year and the soils grinder to 1,000 hours per year. At the restricted annual operating rates, the total facility-wide emissions of nitrogen oxide would not exceed 50 tons per year.

D. Conclusion

Under the effective terms and operational restrictions of this permit to install, Ohio Mulch will restrict the emission of criteria pollutants including nitrogen oxides to less than the Title V threshold for permitting.



Street Address:

State of Ohio Environmental Protection Agency

Mailing Address:

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

Lazarus Gov.
Center

**RE: DRAFT PERMIT TO INSTALL
FRANKLIN COUNTY
Application No: 01-08446**

CERTIFIED MAIL

DATE: 2/26/2002

Ohio Mulch
Byron Brannon
2140 Advance Ave
Columbus, OH 43207

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on 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 proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$3600** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

CDO

Mid-Ohio Regional Planning Commission



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 01-08446

Application Number: 01-08446
APS Premise Number: 0125042476
Permit Fee: **To be entered upon final issuance**
Name of Facility: Ohio Mulch
Person to Contact: Byron Brannon
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):
Primary and secondary soil grinding, storage piles, loading and unloading.

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 Related to Monitoring and Recordkeeping 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 representative of the Director, upon receipt of a written request and within a reasonable time, any

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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 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 application must be made to the Director for the installation or modification of any other emissions unit(s).

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

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule

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3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 thirty (30) days after commencing operation of the source(s) covered by this permit.

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	32.9
NO _x	45.9
SO ₂	3.4
CO	9.9
OC	3.7

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>
F001 - Portable Diamond 2 tub grinder (27 ton/hr) and electric power screen (22.5 tons per hour)	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07 (B)(1)
	OAC rule 3745-17-08(B)
800 hp diesel engine	OAC rule 3745-31-05(A)(3)

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OAC rule 3745-18-06 (G)

Applicable Emissions
Limitations/Control Measures

Particulate emissions (PE) shall not exceed 3.5 lbs/hr and 3.3 tons/yr from the tub grinder and power screen. See section B.1 below.

Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.2.b through A.2.d.

Compliance with this rule also includes compliance with OAC rules 3745-17-07(B)(1) and 3745-17-08(B).

Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a 3-minute average.

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).

NOx emissions shall not exceed 24.8 lbs/hr.

CO emissions shall not exceed 5.3 lbs/hr.

SOx emissions shall not exceed 1.7 lbs/hr.

OC emissions shall not exceed 1.98 lbs/hr and 3.4 tons/yr.

PE shall not exceed 1.76 lbs/hr.

OAC rule 3745-31-05(D)

OAC rule 3745-17-11 (B)(5)(b)

OAC rule 3745-17-07 (A)(1)

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See section A.2.e, B.1 and B.2 below.

Compliance with this rule also includes compliance with OAC rules 3745-17-11(B)(5)(b), 3745-17-07(A) and 3745-18-06(G).

NO_x emissions shall not exceed 42.6 tons per rolling 12-month period.

CO emissions shall not exceed 9.2 tons per rolling 12-month period.

SO_x emissions shall not exceed 2.8 tons per rolling 12-month period.

OC emissions shall not exceed 1.98 lbs/hr and 3.4 tons/yr.

PE shall not exceed 3 tons per rolling 12-month period.

PE from a large bore diesel engine exhaust stack shall not exceed 0.062 lb per MMBTU of actual heat input.

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

SO_x emissions from the diesel engine exhaust stack shall not exceed 0.5 pound per MMBTU of actual heat input.

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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:

Tub grinder

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:

material handling operation

control measure

Tub grinder

Collar shrouding

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 combustion emissions of NOx, SO2, CO, OC and PE reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

B. Operational Restrictions

1. The maximum annual operating hours for this emissions unit shall not exceed 3,432, based upon a rolling, 12-month summation of the operating hours.

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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:

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<u>Months(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	286
1-2	572
1-3	858
1-4	1144
1-5	1430
1-6	1716
1-7	2002
1-8	2288
1-9	2574
1-10	2860
1-11	3146
1-12	3432

After the first 12 calendar months of operation 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.

2. 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

1. 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>
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Tub grinder	Daily, when operating
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2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. 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.

4. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement 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.
5. The permittee shall maintain a record of the sulfur content of each shipment of diesel fuel received for burning in this emissions unit.
6. 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.
7. The operations log shall be maintained on site.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any of the following occurrences:
 - a. each day when visible emissions were observed, and at which location;
 - b. each day during which an inspection was not performed by the required frequency; and
 - c. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following

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Emissions Unit ID: **F001**

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the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels.

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4. 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.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation-
PE shall not exceed 3.5 lbs/hr per hour and 4.2 tons/yr from tub grinder and power screen.

Applicable Compliance Method-
Compliance shall be based on a RACM emission factor of 0.35 lb PE/ton wood times the maximum process weight rate of 27 tons/hr and an 80% control efficiency to equal 1.89 lb PE/hr. For the power screen, 0.35 lb PM/ton wood times the maximum process weight rate of 22.5 tons/hr and 80% control efficiency to equal 1.58 lbs PE/hr. Compliance with the annual emissions limitation shall be based on record keeping in section C.6.
 - b. Emission Limitation-
Visible particulate emissions of fugitive dust shall not exceed 20% 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. Emission Limitation-
Combustion emissions shall not exceed the following: NOx emissions shall not exceed 24.8 lbs/hr and 42.6 tons/yr; CO emissions shall not exceed 5.3 lbs/hr and 9.2 tons/yr; SOX emissions shall not exceed 1.6 lbs/hr and 2.8 tons/yr ; and OC emissions shall not exceed 1.98 lbs/hr and 3.4 tons/yr ; and PE shall not exceed 1.8 lbs/hr and 3 tons/yr..

Applicable Compliance Method-
Compliance with the emission limitations identified above for the diesel engine shall be determined by using the emission factors from AP-42, 5th Edition (October 1996), Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the

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rated capacity of the diesel engine (800 hp). The hourly emission rates are multiplied by 3,432 hours and converted to tons to obtain the annual emissions.

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Emissions Unit ID: **F001**

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AP-42 Table 3.3-1 for combustion emissions from diesel engines

$0.031 \text{ lb Nox/hp-hr} * 800 \text{ hp} = 24.8 \text{ lb Nox/hr} * 3,432 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lb} = 42.6 \text{ ton NOx/yr}$

$0.00668 \text{ lb CO/hp-hr} * 800 \text{ hp} = 5.34 \text{ lb CO/hr} * 3,432 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lb} = 9.2 \text{ ton CO/yr}$

$0.00205 \text{ lb SOx/hp-hr} * 800 \text{ hp} = 1.64 \text{ lb Sox/hr} * 3,432 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lb} = 2.8 \text{ ton SOx/yr}$

$0.00247 \text{ lb OC/hp-hr} * 800 \text{ hp} = 1.98 \text{ lb OC/hr} * 3,432 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lb} = 3.4 \text{ ton OC/yr}$

$0.0022 \text{ lb PE/hp-hr} * 800 \text{ hp} = 1.76 \text{ lb PE/hr} * 3,432 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lb} = 3 \text{ tons PE/yr}$

d. 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 emission observations performed in accordance with 40 CFR Part 60, Appendix A, Test Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

f. Emission Limitation-

PE emissions from the diesel engine exhaust stack shall not exceed 0.062 lb per MMBtu of actual heat input.

Applicable Compliance Method-

Compliance with the emissions limitation for the diesel engine identified above shall be determined by using the emission factor for particulates from AP-42, 5th Edition (October 1996), Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines." This emission factor is 0.31 lb particulate/MMBtu (fuel input) for diesel fuel. (Note: this emission factor is equivalent to the emission factor of 0.0022 lb PM/hp-hr.)

g. Emission Limitation-

SO₂ emissions from the diesel engine exhaust stack shall not exceed 0.5 lb per MMBtu of actual heat input.

Applicable Compliance Method-

Compliance with the emissions limitation for the diesel engine identified above shall be determined by using the emission factor for SO_x from AP-42, 5th Edition (October 1996), Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines." This emission factor is 0.29 lb SO_x/MMBtu (fuel input) for diesel fuel.

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F. Miscellaneous Requirements

1. Terms in section B.1, C.6 and D.3 of this permit are federally enforceable.
2. Pursuant to Ohio Administrative Code (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 PTI providing the following criteria are met:
 - a. the portable emissions unit is equipped with the best available 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 the CDO having jurisdiction over the new site within a minimum of thirty days prior to the scheduled relocation; and
 - d. in the CDO judgement, the proposed site is acceptable under the rule 3745-15-07 of the Administrative Code.
2. 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(F) 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 emission 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 Chapter 3745-47 of the Administrative Code, 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 the proposed site; and

- g. the portable emissions unit owner has provided the Ohio EPA with fifteen days written notice of the relocation.
3. Any site approvals issued by the Ohio EPA, pursuant to 2. above, shall be valid for no longer than three 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 owner or operator 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

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to the relocation of the emissions unit with CDO having jurisdiction over the new site. Upon receipt of the notice, CDO 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.

Ohio

PTI /

Emissions Unit ID: **F002**

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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>
F002 - Primary and secondary soil power screens (200 tons/hr)	145 hp and 70 hp diesel engines	OAC rule 3745-31-05(A)(3)
		OAC rule 3745-31-05(D)
		OAC rule 3745-17-07(B)(1)
		OAC rule 3745-17-08(B)

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Emissions Unit ID: F002

		<u>Applicable Emissions Limitations/Control Measures</u>
OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07 (A)(1)(a)	PE shall not exceed 20 pounds per hour.
	OAC rule 3745-17-11 (B)(5)	Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.2.b through A.2.d.
	OAC rule 3745-18-06(G)	Compliance with this rule also includes compliance with OAC rules 3745-17-07(B)(1) and 3745-17-08(B). PE shall not exceed 10 tons per rolling 12-month period.
		Visible particulate emissions from any fugitive dust source shall not exceed 20% opacity, as a three-minute average, as determined in accordance with paragraph (B)(3) of OAC rule 3745-17-03.
OAC rule 3745-31-05(D)		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).
		NOx emissions shall not exceed 6.67 lbs/hr and 3.35 tons/yr; CO emissions shall not exceed 1.45 lbs/hr and 0.73 ton/yr;

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SOx emissions shall not exceed 0.44 lbs/hr and 0.22 ton/yr;

stack shall not exceed 0.310 lb per MMBTU of actual heat

OC emissions shall not exceed 0.53 lb/hr and 0.27 ton/yr.

SO2 emissions from the diesel engine exhaust stack shall not exceed 0.5 lb per MMBTU of actual heat input.

PE shall not exceed 0.5 lb/hr and 0.24 ton/yr.

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

Compliance with this rule also includes compliance with OAC rules 3745-17-11(B)(5), 3745-17-07(A) and 3745-18-06(G).

NOx emissions shall not exceed 3.35 tons per rolling 12-month period;

CO emissions shall not exceed 0.73 ton per rolling 12-month period;

SOx emissions shall not exceed 0.22 ton per rolling 12-month period;

OC emissions shall not exceed 0.27 ton per rolling 12-month period.

PE shall not exceed 0.24 ton per rolling 12-month period.

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

PE from the diesel engine exhaust

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:

Soil Grinder

- 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:

material handling operation

control measure

Soil grinder

Moisture, inherent

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 combustion emissions of NO_x, SO₂, CO, OC and PE reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

B. Operational Restrictions

1. The maximum annual operating hours for 510 commander grinder and power grid shall not exceed 1,000 hours per rolling, 12- month period.

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

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

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<u>Months(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	100
1-2	200
1-3	300
1-4	400
1-5	500
1-6	600
1-7	700
1-8	800
1-9	900
1-10	1000
1-11	1000
1-12	1000

After the first 12 calendar months of operation 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.

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

C. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections to determine if visible particulate emissions are being emitted from the operations listed below in accordance with the following minimum frequencies:

<u>operation</u>	<u>minimum inspection frequency</u>
Soil grinder	Daily, when operating

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. 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 "no visible emissions" requirement..

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4. The permittee shall note the following in an operations log for each operation (soil grinder) at the minimum inspection frequency specified above whenever the emissions unit is in operation:
 - a. the date and time of each observation;
 - b. the presence or absence of any visible emissions;
 - c. whether it was determined by the permittee that it was necessary to implement the control measures;
 - d. the dates and times the control measures were implemented; and
 - e. the name of the person reporting each observation.
5. The permittee shall maintain a record of the sulfur content of each shipment of diesel fuel received for burning in this emissions unit.
6. 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.
7. The operations log shall be maintained on site.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any of the following occurrences:
 - a. each day when visible emissions were observed, and at which location;
 - b. each day during which an inspection was not performed by the required frequency; and
 - c. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit..

3. The permittee shall submit deviation (excursion) reports which identify 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.
4. 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

E. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation-
PE shall not exceed 20 lbs/hr and 10 tons/yr from the 510 commander soil grinder.

Applicable Compliance Method-
Compliance shall be based on an emission factor of 0.1 lb PM/ton soil times the maximum annual production rate of 200,000 tons/yr divided by 2,000 pounds per ton to equal 10 tons PE/yr. The hourly rate is based on the annual emission rate times 2000 lbs per ton divided by the maximum operating hours of 1,000 hr per year to equal 20 lbs.
 - b. Emission Limitation-
Combustion emissions shall not exceed the following: NOx emissions shall not exceed 6.67 lbs/hr per hour and 3.35 tons/yr; CO emissions shall not exceed 1.45 lb/hr and 0.49 ton/yr; SOx emissions shall not exceed 0.3 lb/hr and 0.15 ton/yr; OC emissions shall not exceed 0.36 lb/hr and 0.18 tons/y and PE shall not exceed 0.47 lb/hr and 0.24 ton/yr..

Applicable Compliance Method-
Compliance with the emission limitations identified above for the diesel engines shall be determined by using the emission factors from AP-42, 5th Edition (October 1996), Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engines (145 hp/70 hp). The hourly emission rates are multiplied by 1,000 hours and converted to tons to obtain the annual emissions.

AP-42 Table 3.3-1
 $0.031 \text{ lb NOx/hp-hr} * 145 \text{ hp} = 4.5 \text{ lb NOx/hr} * 1,000 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lbs} = 2.25 \text{ tons NOx/yr}$
 $0.00668 \text{ lb CO/hp-hr} * 145 \text{ hp} = 0.98 \text{ lb CO/hr} * 1,000 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lbs} = 0.49 \text{ ton CO/yr}$
 $0.00205 \text{ lb SOx/hp-hr} * 145 \text{ hp} = 0.30 \text{ lb SOx/hr} * 1,000 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lbs} = 0.15$

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ton SO_x/yr

$0.00247 \text{ lb OC/hp-hr} * 145 \text{ hp} = 0.36 \text{ lb OC/hr} * 1,000 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lbs} = 0.18 \text{ ton OC/yr}$

$0.0022 \text{ lb PE/hp-hr} * 145 \text{ hp} = 0.32 \text{ lb PE/hr} * 1,000 \text{ hr/yr} * 1 \text{ ton}/2000 \text{ lb} = 0.16 \text{ ton PE/yr}$

AP-42 Table 3.3-1

$0.031 \text{ lb NOx/hp-hr} * 70 \text{ hp} = 2.17 \text{ lb NOx/hr} * 1,000 \text{ hr/yr} * 1 \text{ ton}/2000 \text{ lb} = 1.1 \text{ tons NOx/yr}$

$0.00668 \text{ lb CO/hp-hr} * 70 \text{ hp} = 0.47 \text{ lb CO/hr} * 1,000 \text{ hr/yr} * 1 \text{ ton}/2000 \text{ lb} = 0.24 \text{ ton CO/yr}$

$0.00205 \text{ lb SOx/hp-hr} * 70 \text{ hp} = 0.14 \text{ lb SOx/hr} * 1,000 \text{ hr/yr} * 1 \text{ ton}/2000 \text{ lb} = 0.07 \text{ ton SOx/yr}$

$0.00247 \text{ lb OC/hp-hr} * 70 \text{ hp} = 0.17 \text{ lb OC/hr} * 1,000 \text{ hr/yr} * 1 \text{ ton}/2000 \text{ lb} = 0.09 \text{ ton OC/yr}$

$0.0022 \text{ lb PE/hp-hr} * 70 \text{ hp} = 0.15 \text{ lb PE/hr} * 1,000 \text{ hr/yr} * 1 \text{ ton}/2000 \text{ lb} = 0.08 \text{ ton PE/yr}$

- c. 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 emission observations performed in accordance with 40 CFR Part 60, Appendix A, Test Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

- d. Emission Limitation-
PE emissions from a small bore diesel engine exhaust stack shall not exceed 0.310 lb per MMBtu of actual heat input.

Applicable Compliance Method-

Compliance with the emissions limitation for the diesel engine identified above shall be determined by using the emission factor for particulates from AP-42, 5th Edition (October 1996), Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines." This emission factor is 0.31 lb particulate/MMBtu (fuel input) for diesel fuel. (Note: this emission factor is equivalent to the emission factor of 0.0022 lb PM/hp-hr.)

- e. Emission Limitation-
SO₂ emissions from the diesel engine exhaust stack shall not exceed 0.5 lb per MMBTU of actual heat input.

Applicable Compliance Method-
Compliance with the emissions limitation for the diesel engine identified above shall be determined by using the emission factor for SOx from AP-42, 5th Edition (October 1996), Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines." This emission factor is 0.29 lb SOx/MMBtu (fuel input) for diesel fuel.

F. Miscellaneous Requirements

- 1. Terms in section B.1, C.6 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.

Operations, Property, <u>and/or Equipment</u>	Applicable Rules and/or Requirements	Emissions Limitations and/or Control Measures
F003 - Material handling with load-in and load-out from storage piles and wind erosion (mulch and soil)	Wind erosion from storage piles. See Section A.2.a for identification of storage piles.	Load-in and load-out of storage piles, and wind erosion from storage

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piles

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<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
OAC rule 3745-31-05(A)(3)	<p>Particulate emissions shall not exceed 2.3 lbs/hr and 10 tons/yr.</p> <p>There shall be no visible particulate emissions (PE) except for a period of time not to exceed 1- minute during any 60-minute observation period from material handling operations and storage piles.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.2.b, A.2.c and A.2.f.</p>
OAC rule 3745-31-05(A)(3)	<p>There shall be no visible particulate emissions (PE) except for a period of time not to exceed 1- minute during any 60-minute observation period from material handling operations and storage piles.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.2.d through A.2.f.</p>
OAC rule 3745-17-07 (B)(6)	<p>The emission limitation specified in this rule is less stringent than the emissions limitations established pursuant to 3745-31-05(A)(3).</p>
OAC rule 3745-17-08 (B), (B)(6)	<p>The emission limitation specified in this rule is less stringent than the emissions limitations established pursuant to 3745-31-05(A)(3).</p>

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2. Additional Terms and Conditions

- 2.a** The storage piles that are covered by this permit and subject to the above-mentioned requirements are listed below:

Mulch piles

Soil piles

- 2.b** The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles 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 employ inherent moisture to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.c** The above-mentioned control measure shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure shall continue during any such operation until further observation confirms that use of the measure is unnecessary.

- 2.d** The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to employ inherent moisture to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.e** The above-mentioned control measure shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.

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

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

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

<u>storage pile identification</u>	<u>minimum load-in inspection frequency</u>
Mulch piles	Daily, when operating
Soil piles	Daily, when operating

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

<u>storage pile identification</u>	<u>minimum load-out inspection frequency</u>
Mulch piles	Daily, when operating
Soil piles	Daily, when operating

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

<u>storage pile identification</u>	<u>minimum wind erosion inspection frequency</u>
Mulch piles	Daily, when operating
Soil piles	Daily, when operating

4. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is

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within one week.

5. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.

6. The permittee 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.
7. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in 7.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General terms and conditions of this permit.

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:

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- a. Emission Limitation-
PE shall not exceed 2.3 lbs/hr and 10 tons/yr from material handling and wind erosion from storage piles.

Applicable Compliance Method-

Compliance shall be determined by the summing the calculated emission for material handling of mulch and with those emissions resulting from stockpiling of mulch and soils using the following equations:

Mulch handling and stockpiling

Emission factors for sawdust pile loading, unloading and storage piles RACM Table 2.17-1

$$E = 1.0 \text{ lb PM/ton} * 7.7 \text{ tons mulch/hr} * (1 - 0.8) = 1.54 \text{ lbs PE/hr}$$

$$1.54 \text{ lbs/hr} * 8,760 \text{ hrs/yr} * 1 \text{ ton}/2,000 \text{ lbs} = 6.75 \text{ tons PE/yr}$$

Soil handling and stockpiling

Emission calculation for soils handling and storage piles RACM Section 2.1.2., Equation 1

$$EF \text{ (lb/ton)} = 0.33 / (PE/100)^2$$

$$0.33 / (101/100)^2 = 0.34 \text{ lb/ton}$$

$$0.34 \text{ lb/ton} * 19,170 \text{ tons/yr} * 1 \text{ ton}/2,000 \text{ lbs} = 3.26 \text{ tons/yr}$$

$$(3.26 \text{ tons/yr} * 2,000 \text{ lbs/ton}) / 8,760 \text{ hrs/yr} = 0.74 \text{ lbs/hr}$$

$$1.54 \text{ lbs/hr} + 0.74 \text{ lb/hr} = 2.3 \text{ lbs PM/hr}$$

$$6.75 \text{ tons/yr} + 3.26 \text{ tons/yr} = 10 \text{ tons PM/yr}$$

- b. Emission limitation-
There shall be no visible particulate emissions except for a period of time not to exceed 1-minute during any 60-minute observation period from material handling operations and storage piles.

Applicable Compliance Method

Compliance with the visible emission limitations for the storage piles identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

F. Miscellaneous Requirements

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None

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