



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
LAKE 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: 02-20331

Fac ID: 0243151363

DATE: 3/8/2005

Ohio Mulch
Mike Moelller
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

NEDO



**Permit To Install
Terms and Conditions**

**Issue Date: 3/8/2005
Effective Date: 3/8/2005**

FINAL PERMIT TO INSTALL 02-20331

Application Number: 02-20331
Facility ID: 0243151363
Permit Fee: **\$1200**
Name of Facility: Ohio Mulch
Person to Contact: Mike Moelller
Address: 2140 Advance Ave.
Columbus, OH 43207

Location of proposed air contaminant source(s) [emissions unit(s)]:
**1291 E. 289th St.
Wickliffe, Ohio**

Description of proposed emissions unit(s):
Diesel powered mulch grinder, storage piles, paved roadways.

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>
Fugitive PE	32.6
Stack PE	0.33
CO	4.71
NOx	8.1
O.C.	1.35
SO2	1.7

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>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Plant Roadways and Parking Areas	OAC rule 3745-31-05(A)(3)	There shall be no visible emissions from any unpaved roadway or unpaved parking area except for a period of time not to exceed three minutes during any sixty-minute observation period.
	OAC rule 3745-17-07(B)	The permittee shall employ best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.2.b through A.2.g).
	OAC rule 3745-17-08(B)	Particulate emissions shall not exceed 14.2 TPY. The visible emission limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
		The control requirements in this rule are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a The unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

unpaved roadways:

all unpaved roadways at the facility

unpaved parking areas:

all unpaved parking areas at the facility

- 2.b** The permittee shall employ best available control measures on all unpaved roadways and parking areas 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 treat the unpaved roadways and parking areas with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c** The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for an unpaved roadway or parking area 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. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- 2.d** Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled by flushing. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to a visible emission limitation of no visible particulate emissions except for one minute during any sixty-minute observation period.
- 2.e** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- 2.f** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

- 2.g Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 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 the unpaved roadways and parking areas in accordance with the following frequencies:

<u>unpaved roadways</u>	<u>minimum inspection frequency</u>
all unpaved roadways site)	daily (except for days where there is no vehicular activity at the

<u>unpaved parking areas</u>	<u>minimum inspection frequency</u>
all unpaved parking areas site)	daily (except for days where there is no vehicular activity at the

- 2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area 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. 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 the next day.
- 3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, 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, 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 measure(s);
- c. the dates the control measure(s) were implemented; and
- d. on a calendar quarter basis, the total number of days the control measure(s) were implemented and 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 4.d. 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 (exceedance) 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 specified in section A.1. of these terms and conditions shall be determined by the following methods:
 - a. Compliance with the emission limitation for the unpaved roadways and parking areas 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.
 - b. Emission Limitation:
Particulate emissions shall not exceed 14.2 TPY.

Applicable Compliance Method:

Compliance with the above annual particulate emission limitation shall be determined by the following equation from AP-42, Chapter 13.2.2 (Unpaved Roads), Fifth Edition, dated 9/1998:

$$E = k \times (S/15) \times (s/12)^{0.8} \times (W/3)^{0.5} \times [(365-p)/365] / (M/2)^{0.4} \times \text{VMT} \times (1/2,000) \times (1-CE)$$

where:

E = annual particulate emission rate;

k = constant, 10;

S = mean vehicular speed, 15 mph;

s = silt content, 8.5%;

W = mean vehicular weight, 22 tons;

p = number of days with at least 0.1 inches of precipitation per year, 150;

M = moisture content of road material, 0.2;

VMT = vehicular miles traveled per year, 2,680

CE = fractional control efficiency, 0.60.

F. Miscellaneous Requirements

None

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 - load-in and load-out of storage piles (see section A.2.a for identification of storage piles)	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-08(B)
wind erosion from storage piles (see section A.2.a for identification of storage piles)	OAC rule 3745-31-05(A)(3)	
load-in and load-out of storage piles and wind erosion from storage piles	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-17-07(B)	

Applicable Emissions
Limitations/Control Measures

There shall be no visible emissions of fugitive dust except for a period of time not to exceed one minute during any sixty-minute observation period.

The permittee shall employ 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).

There shall be no visible emissions of fugitive dust except for a period of time not to exceed one minute during any sixty-minute observation period.

The permittee shall employ 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).

Particulate emissions shall not exceed 6.1 TPY from wind erosion and load-in and load-out operations.

The visible emission limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).

The control requirements in this

rule are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The storage piles that are covered by this permit and subject to the requirements of OAC rule 3745-31-05 are listed below:

- yard waste
- compost
- topsoil
- mulch
- any materials stored in piles that are ultimately blended with any of the above materials (e.g., spent foundry sand)
- any other materials stored in piles at the facility

2.b The permittee shall employ best available control measures for 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 watering the storage piles as needed and minimizing drop height 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 measures 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 measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures 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 watering the storage piles as needed 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 measures 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 measures are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measures 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.

- 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

- 1. The permittee shall comply with the following operational restrictions in order to reduce nuisance odors in accordance with OAC rule 3745-15-07:
 - a. At no time between March 1st and November 30th, shall yard waste have been stored for more than 3 months before the yard waste is processed through a grinder.
 - b. The height and width of the compost piles* (windrows) shall be limited to 15 feet and 20 feet, respectively.
 - * Compost piles are defined as those piles that have been processed through a grinder.
 - c. The permittee shall compost with controlled biological decomposition of organic solid wastes under predominately aerobic conditions and at temperatures conducive to maintaining an aerobic environment within the piles. In order to achieve this, the frequency of turning of the compost piles shall be in accordance with sound composting practices.

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>
all piles	daily (for all days that a load-in activity occurs)

- 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>
all piles	daily (for all days that a load-out activity occurs)

- 3. Except as otherwise provided in this section, the permittee shall perform inspections of the wind

erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

storage pile identification
all piles

minimum wind erosion inspection frequency
daily (for all days that normal operations occur on site)

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 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 for 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 appropriate Ohio EPA District Office or local air agency, 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 measure(s);
 - c. the dates the control measure(s) were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measure(s) 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 measures.

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.

8. The permittee shall perform weekly checks of the windrows to determine if the height and width of the piles are in compliance with the operational restrictions above.
9. The permittee shall maintain monthly records of the following:
 - a. all dates that the grinder was on site and processing yard waste;
 - b. all dates that a weekly check of the windrows is performed and whether the piles met the size restrictions contained in the operational restrictions above on that date; and
 - c. all dates that the piles were turned (piles shall be identified in a manner such that an Ohio EPA inspector can verify which piles were turned on specific dates).

D. Reporting Requirements

1. The permittee shall submit deviation (exceedance) 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;
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented;
 - c. each day when, on that day, yard waste has been stored for more than 3 months without processing as described in section B.1. of these terms and conditions; and
 - d. each day when the dimensions of the piles (windrows) exceeded the restrictions in section B.1. of these terms and conditions.
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 specified in section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. 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.
 - b. Emission Limitation:
Particulate emissions shall not exceed 6.1 TPY from wind erosion and load-in and load-out operations.

Applicable Compliance Method:

Compliance with the above annual particulate emission limitation shall be determined by the following equations:

from AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles), Fifth Edition, dated 1/1995, for load -in and load-out operations,

$$El = k \times 0.0032 \times [(U/5)^{1.3} / (M/2)^{1.4}] \times P / 2,000$$

where:

El = annual particulate emission rate (TPY);

k = particle size multiplier (dimensionless), 0.74 for PE;

U = mean wind speed, 10.8 mph;

M = material moisture content, 3% (yard waste), 40% (compost), and 14% (topsoil);

P = maximum annual process rate, in tons/yr, 15,000 TPY (yard waste), 13,333 TPY (compost), and 15,887 TPY (topsoil); and

and from USEPA's Control of Open Fugitive Dust Sources September 1988 for wind erosion from storage piles:

$$Ew = 1.7 \times (s/1.5) \times [(365-p)/235] \times (f/15) \times 365 \times A / 2,000$$

where:

Ew = total annual particulate emission rate;

s = silt content of the stored material, weight percent, 3% (yard waste), 3% (compost), 9.2% (topsoil);

p = number of days with > 0.01 inches of precipitation per year, 150 days;

f = percentage of time wind speed exceeds 12 mph, 30%; and

A = total surface area of storage piles, in acres, 1.0 (yard waste), 3.5 (compost), and 1.5 (topsoil).

For total particulate emissions:

$E = [\text{sum of particulate emissions from each load-in/load-out operation (EI)}] + [\text{total annual particulate emissions from wind erosion (Ew)}]$

F. Miscellaneous Requirements

None.

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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>	<u>Applicable Emissions Limitations/Control Measures</u>
F003 - 135 tons per hour capacity Mulch Grinder powered by a 630 HP diesel engine.	OAC rule 3745-31-05(A)(3)	<p>Visible particulate emissions of fugitive dust shall not exceed 10 % opacity, as a six-minute average.</p> <p>The permittee shall employ 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> <p>Particulate emissions shall not exceed 12.3 TPY from mulch grinding operations.</p>
630 HP diesel engine exhaust stack.	OAC rule 3745-31-05(A)(3)	<p>Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average, except for a period of not more than six consecutive minutes in any sixty-minute period.</p> <p>Particulate emissions shall not exceed 0.062 lb/mmBtu actual heat input or 0.25 lb/hr, and 0.33 tons per year.</p> <p>Nitrogen oxides emissions shall not exceed 6.21 lbs/hr and 8.1 tons per</p>

year.

Carbon monoxide emissions shall not exceed 3.62 lbs/hr and 4.71 tons per year.

Organic compound emissions shall not exceed 1.04 lbs/hr and 1.35 tons per year.

Sulfur dioxide emissions shall not exceed 1.29 lbs/hr and 1.7 tons per year.

2. Additional Terms and Conditions

- 2.a** The permittee shall employ best available control measures on the mulch grinder 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 apply water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

B. Operational Restrictions

1. This emissions unit shall be restricted to 2,600 hours per year of operation. The permittee has requested this operational restriction to avoid the State emission modeling requirements for nitrogen oxides.

C. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform daily inspections of the mulch grinder.
2. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for the mulch grinding operation. The inspections shall be performed during representative, normal operating conditions.
3. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed;

- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure;
 - 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
4. The permittee shall maintain monthly records of the following information:
 - a. the number of hours of operation for each day this emissions unit is operated; and
 - b. the running total number of hours of operation for the calendar year.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency; and
 - b. 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 notify the Ohio EPA Northeast District Office, in writing of any record showing that the hours of operation for this emissions unit exceeded the operational restriction listed in this permit. A copy of such record shall be sent to the Ohio EPA Northeast District Office within 30 days after the exceedance.

E. Testing Requirements

1. Emission Limitation:
Visible particulate emissions of fugitive dust shall not exceed 10 % opacity, as a six-minute average.

Applicable Compliance Method:

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Compliance with the above visible emission limitation shall be determined by USEPA's Reference Method 9 in 40 CFR, Part 60, Appendix A.

2. Emission Limitation
 Particulate emissions shall not exceed 12.3 TPY from mulch grinding operations.

Applicable Compliance Method:

Compliance with the above annual particulate emission limitation shall be determined by the following equation:

$$E = 0.35 \text{ lb/ton} \times 135 \text{ tons/hr} \times (1 - 0.8) \times 2,600 \text{ hrs/yr} \times 1 \text{ ton}/2,000 \text{ lbs}$$

Where: E = annual particulate emission rate (TPY)
 0.35 lb/ton = particulate emission factor from Table 2.17-1 of the Ohio EPA's "RACE for Fugitive Dust Control", Aug., 1983.
 (1 - 0.8) = emissions reduction based on estimated efficiency of emission control measures of 80%, by weight.
 135 tons/hr = maximum process weight rate of mulch grinder.
 2,600 = maximum annual hours of mulch grinder operation based upon operational restriction.

3. Emission Limitation:
 Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average, except for a period of not more than six consecutive minutes in any sixty-minute period.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible emission limitation through visible emissions observations performed in accordance with 40 CFR part 60, Appendix A, Method 9.

4. Emission Limitation:
 Particulate emissions shall not exceed 0.062 lb/mmBtu actual heat input or 0.25 lb/hr, and 0.33 tons per year.

Applicable Compliance Method:

Compliance shall be based upon the use of an emission factor as specified in AP-42, 5th Edition, Compilation of Air Pollution Emission Factors, section 3.2, table 3.2-2 (0.0991 lb of condensable particulate matter per mmBtu, actual heat input).

If required, the permittee shall demonstrate compliance with the allowable emission rate in

accordance with 40 CFR part 60, Appendix A, Methods 1 - 5.

Compliance with the annual emission limit shall be determined by multiplying the hourly emissions rate of 0.62 lbs/hr by 2,600 hours per year and the conversion factor 1.0 ton/2,000 lbs.

5. Emission Limitation:
Nitrogen oxides emissions shall not exceed 6.21 lbs/hr and 8.1 tons per year.

Applicable Compliance Method:

Compliance shall be based upon the use of an emission factor specified by the manufacturer of 6.21 lbs/hr.

If required, the permittee shall demonstrate compliance with the allowable emission rate in accordance with 40 CFR part 60, Appendix A, Methods 7 or 7E.

Compliance with the annual emission limit shall be determined by multiplying the hourly emissions rate of 6.21 lbs/hr by 2,600 hours per year and the conversion factor 1.0 ton/2,000 lbs.

6. Emission Limitation:
Carbon monoxide emissions shall not exceed 3.62 lbs/hr and 4.71 tons per year.

Applicable Compliance Method:

Compliance shall be based upon the use of an emission factor specified by the manufacturer of 3.62 lbs/hr.

If required, the permittee shall demonstrate compliance with the allowable emission rate in accordance with 40 CFR part 60, Appendix A, Method 10.

Compliance with the annual emission limit shall be determined by multiplying the hourly emissions rate of 3.62 lbs/hr by 2,600 hours per year and the conversion factor 1.0 ton/2,000 lbs.

7. Emission Limitation:
Organic compound emissions shall not exceed 1.04 lbs/hr and 1.35 tons per year.

Applicable Compliance Method:

Compliance shall be based upon the use of an emission factor specified by the manufacturer of 1.04 lbs/hr

If required, the permittee shall demonstrate compliance with the allowable emission rate in accordance with 40 CFR part 60, Appendix A, Method 25 or 25A.

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Compliance with the annual emission limit shall be determined by multiplying the hourly emissions rate of 1.04 lbs/hr by 2,600 hours per year and the conversion factor 1.0 ton/2,000 lbs.

8. Emission Limitation:
Sulfur dioxide emissions shall not exceed 1.29 lbs/hr and 1.7 tons per year.

Applicable Compliance Method:

Compliance shall be based upon the use of an emission factor specified by the manufacturer of 1.29 lbs/hr.

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

F. Miscellaneous Requirements

None.