

Facility ID: 1677000252 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

- [Go to Part II for Emissions Unit F001](#)
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Facility ID: 1677000252 Emissions Unit ID: F001 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
Mulch transfer points	OAC rule 3745-31-05(A)(3) (PTI 16-02107)	Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.a through A.2.d) Visible particulate emissions shall not exceed twenty percent as a three-minute average.

2. Additional Terms and Conditions

- (a) The mulch transfer operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

All mulch transfer operations on-site.
 The permittee shall employ best available control measures for the above-identified mulch transfer operation(s) 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 spraying with water to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
 For each mulch transfer operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the mulch transfer operation(s) until further observation confirms that use of the control measure(s) is unnecessary.
 Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

B. Operational Restrictions

1. None

C. Monitoring and/or Record Keeping Requirements

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

mulch transfer operation(s) minimum inspection frequency

Conveyor Discharge - mulch weekly

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

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;
 - 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) was (were) implemented; and,
 - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, 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; and,
 - b. 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.

E. Testing Requirements

1. Emission limitation:
No Visible Emissions

Applicable Compliance Method:
Compliance with the visible emission limitations for the transfer points 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.
2. Emission limitation:
Visible particulate emissions shall not exceed twenty percent as a three-minute average.

Applicable Compliance Method:
Compliance with the visible emission limitations for the transfer points 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

1. None

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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Storage Piles
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)
(PTI 16-02107)

Particulate emissions shall not exceed 3.00 pounds per hour, nor 13.14 tons per year.

no visible emissions except for one minute in any hour

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)

no visible emissions except for one minute in any hour

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)

wind erosion from storage piles (see Section A.2.a for identification of storage piles) OAC rule 3745-31-05(A)(3)

2. **Additional Terms and Conditions**

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

storage pile identification number of separate piles
mulch three
limestone four
topsoil one
washed gravel three
leaf humus one
sandstone one

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 watering to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The above-mentioned control measure(s) 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(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.

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, and the use of concrete barriers to separate material and block wind to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The above-mentioned control measure(s) 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(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) 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.

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 rule 3745-31-05.

B. **Operational Restrictions**

- 1. None

C. **Monitoring and/or Record Keeping 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:

storage pile identification minimum load-in inspection frequency
mulch daily
limestone daily
topsoil daily
washed gravel daily
leaf humus daily
sandstone daily

- 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:

storage pile identification minimum load-out inspection frequency
mulch daily
limestone daily
topsoil daily
washed gravel daily
leaf humus daily
sandstone daily

- 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 minimum wind erosion inspection frequency
mulch daily

limestone daily
 topsoil daily
 washed gravel daily
 leaf humus daily
 sandstone daily

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 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 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. Emission Limitation:
 3.00 pounds PM per hour and 13.14 tons PM per year

 Applicable Compliance Method:

 The calculations used to determine the permitted emission limits are as follows:

 Hourly PM Emissions from Processed Mulch Piles:

$$(1.0 \text{ lb PM/ton}) \times (15 \text{ tons of wood/hour}) \times (1-0.8)^{***} = 3.00 \text{ lbs PM/hour}$$

 ***Table 2.17-1 also lists an emission factor for loading and unloading from sawdust piles as 1.0 lb PM/ton. However, the accompanying text notes that these are rough estimates and that good judgement should be used to determine more efficient estimates. Since the 1.0 lb PM/ton emission factor does not include rain days and watering, it is likely that a conservative estimate of the emission reductions from these practices will reduce PM emissions by 80%.

 This emissions unit shall be deemed to be in compliance with the lbs PM/hour limit if there are no visible emissions observed from the tub grinder, processed mulch piles, and the loading and unloading activities associated with the tub grinder.

 Annual PM Emissions:

 The hourly PM emission rate is multiplied by 8760 hours and converted to tons to obtain the annual PM emissions.
2. Emission limitation:
 No Visible Emissions except for one minute in any hour

 Applicable Compliance Method:
 Compliance with the visible emission limitations for the transfer points 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.

- 3. Emission limitation:
No Visible Emissions

Applicable Compliance Method:

Compliance with the visible emission limitations for the transfer points 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**

- 1. None

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Facility ID: 1677000252 Emissions Unit ID: F003 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

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

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
Roadways and Parking Areas	OAC rule 3745-31-05(A)(3) (PTI 16-02107)	no visible particulate emissions except for 3 minutes during any 60-minute period 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)

2. **Additional Terms and Conditions**

- (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:
storage lot for mulch

unpaved parking areas:

storage lot for mulch

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 watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

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.

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 using appropriate dust control measures for paved surfaces. 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 60-

minute period.

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.

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.

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

1. None

C. Monitoring and/or Record Keeping 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:

unpaved roadways minimum inspection frequency

all daily

unpaved parking areas minimum inspection frequency

all daily

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 within one week.
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:
- 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;
 - the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - the dates the control measures were implemented; and
 - on a calendar quarter basis, the total number of days the control measures were implemented and 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 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 reports that identify any of the following occurrences:
- 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
 - 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. Emission limitation:
No Visible Emissions except for 3 minutes during any 60-minute period
- Applicable Compliance Method:
Compliance with the visible emission limitations for the transfer points 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.
2. Emission limitation:
No Visible Emissions
- Applicable Compliance Method:
Compliance with the visible emission limitations for the transfer points 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

- 1. None

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Facility ID: 1677000252 Emissions Unit ID: P902 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
500 hp Gruendler horizontal grinder	OAC rule 3745-31-05(A)(3) (PTI 16-02437)	no visible emissions from the horizontal grinder, processed mulch pile(s), and loading and unloading activities associated with the horizontal grinder (See 2.a. and 2.b. below); 2.84 pounds (lbs) particulate emission (PE) per hour and 12.4 tons PE per year; 2.64 pounds (lbs) particulate matter - ten microns (PM10) per hour and 11.5 tons PM10 per year; Emissions from the diesel engine shall not exceed the following rates: Nitrogen Oxides (NOx): 15.44 pounds per hour, 67.6 tons per year; Carbon Monoxide (CO): 3.33 pounds per hour, 14.6 tons per year; Sulfur Dioxide (SO2): 1.02 pound per hour, 4.4 tons per year; Organic Compounds (OC): 1.26 pound per hour, 5.5 tons per year. Volatile Organic Compounds (VOC): 1.26 pound per hour, 5.5 tons per year. See A.2.d and B.1 below. Visible particulate emissions from the diesel engine exhaust stack shall not exceed 20% opacity as a six minute average, except as provided by rule. PM emissions from the diesel engine exhaust stack shall not exceed 0.310 lb per MMBtu of actual heat input.
	OAC rule 3745-17-07(A)	SO2 emissions from the diesel engine exhaust stack shall not exceed 0.5 lb per MMBtu of actual heat input. The PE emission limitation established by this rule is less stringent than the PE emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)(5)(a)	

OAC rule 3745-18-06 (G)

OAC rule 3745-17-11(B)(1)

2. Additional Terms and Conditions

- (a) The permittee shall employ reasonably available control measures for the horizontal grinder, processed mulch pile(s), and the loading and unloading activities associated with the horizontal grinder for the purpose of ensuring compliance with the "no visible emissions" requirement. In accordance with the permittee's permit application, the permittee has committed to watering on an "as needed" basis to ensure compliance.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure (s) is (are) necessary to ensure compliance with the "no visible emissions" requirement. Any required implementation of the control measure(s) shall continue until further observation confirms that use of the control measure(s) is unnecessary.

Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

The pounds per hour and tons per year NOX, CO, SO₂, and OC limits 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. This emissions unit shall be operated with diesel fuel with a sulfur content less than 0.5% by weight.

C. Monitoring and/or Record Keeping 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:

operation(s) minimum inspection frequency

horizontal grinder hourly

loading and unloading activities hourly
associated with the horizontal grinder

processed mulch piles daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Akron Regional Air Quality Management District (ARAQMD), 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.
4. The permittee shall note the following in an operations log for each operation (i.e., horizontal grinder, processed mulch pile(s), and the loading and unloading activities associated with the horizontal grinder) at the minimum inspection frequency specified above whenever the emissions unit is in operation:
- the date and time of each observation;
 - the presence or absence of any visible emissions;
 - whether it was determined by the permittee that it was necessary to implement the control measures;
 - the dates and times the control measures were implemented; and,
 - the name of the person reporting each observation.
5. The operations log shall be maintained on site.
6. The permittee shall maintain a record of the sulfur content of each shipment of diesel fuel received for burning in this emissions unit.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any of the following occurrences:
- each day during which an inspection was not performed by the required frequency; and,
 - each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The permittee shall submit deviation (excursion) reports which identify each day when a fuel other than low sulfur diesel fuel was burned in this emissions unit.
3. 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. Emission limitation:
No Visible Emissions

Applicable Compliance Method:

Compliance with the visible emission limitations for the transfer points 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.

2. Emission Limitation:
2.84 lbs PE per hour and 12.4 tons PE per year

Applicable Compliance Method:

The calculations used to determine the permitted emission limits are as follows:

Hourly PE Emissions from Grinding:

$$(0.35 \text{ lb PE/ton of wood processed}) * X (25 \text{ tons of wood/hour}) X (1-0.8)** = 1.75 \text{ lb PE/hour}$$

*The emission factor of "0.35 lb PE/ton of wood processed" is taken from Ohio EPA document Reasonably Available Control Measures for Fugitive Dust Sources ("RACM") Table 2.17-1 for wood sawing/grinding.

**Since the 0.35 lb PE/hour-ton of wood processed emission factor does not include rain days and watering, it is likely that a conservative estimate of the emission reductions from these practices will reduce PE emissions by 80%.

Hourly PE Emissions from Diesel Engine:

PE emissions from the diesel engine are based on the emission factor of 0.0022 lb PE/hp-hr from AP-42, 5th Edition (October 1996), Section 3.3, Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engine (500 hp) as follows:

$$(0.0022 \text{ lb PE/hp-hr}) X (500 \text{ hp}) = 1.09 \text{ lb PE/hour}$$

Total Hourly PE Emissions:

$$1.75 + 1.09 = 2.84 \text{ lbs/hour}$$

This emissions unit shall be deemed to be in compliance with the lbs PE/hour limit if there are no visible emissions observed from the horizontal grinder, processed mulch piles, and the loading and unloading activities associated with the horizontal grinder.

Annual PE Emissions:

The hourly PE emission rate is multiplied by 8760 hours and converted to tons to obtain the annual PE emissions.

3. Emission Limitation:
2.64 lbs PM10 per hour and 11.5 tons PM10 per year

Applicable Compliance Method:

The calculations used to determine the permitted emission limits are as follows:

Hourly PM10 Emissions from Grinding:

$$(0.31 \text{ lb PM10/ton of wood processed}) * X (25 \text{ tons of wood/hour}) X (1-0.8)** = 1.55 \text{ lb PM10/hour}$$

*The emission factor of "0.31 lb PM10/ton of wood processed" is taken from Ohio EPA document Reasonably Available Control Measures for Fugitive Dust Sources ("RACM") Table 2.17-1 for wood sawing/grinding.

**Since the 0.31 lb PM10/hour-ton of wood processed emission factor does not include rain days and watering, it is likely that a conservative estimate of the emission reductions from these practices will reduce PM10 emissions by 80%.

The emission factor for PM10 is based on a maximum of 25% of the total PE emissions being PM10 size from the particle size distribution presented in AP-42 Table B.2.2 (Category 6 for Grain Handling.)

Hourly PM10 Emissions from Diesel Engine:

PM10 emissions from the diesel engine are based on the emission factor of 0.0022 lb PM10/hp-hr from AP-42, 5th Edition (October 1996), Section 3.3, Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engine (500 hp) as follows:

$$(0.0022 \text{ lb PM10/hp-hr}) X (500 \text{ hp}) = 1.09 \text{ lb PM10/hour}$$

Total Hourly PM10 Emissions:

$$1.55 + 1.09 = 2.64 \text{ lbs/hour}$$

This emissions unit shall be deemed to be in compliance with the lbs PM10/hour limit if there are no visible emissions observed from the horizontal grinder, processed mulch piles, and the loading and unloading activities associated with the horizontal grinder.

Annual PM10 Emissions:

The hourly PM10 emission rate is multiplied by 8760 hours and converted to tons to ob

4. Emission Limitation:
Emissions shall not exceed the following rates:

 NOx: 15.44 pounds per hour, 67.6 tons per year;
 CO: 3.33 pounds per hour, 14.6 tons per year;
 SO2: 1.02 pound per hour, 4.4 tons per year;
 OC: 1.26 pound per hour, 5.5 tons per year.
 VOC: 1.26 pound per hour, 5.5 tons per year.

 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), Section 3.3, Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engine (400 hp). The hourly emission rates are multiplied by 8760 hours and converted to tons to obtain the annual emissions.
 5. Emission Limitation:
Visible particulate emissions from the diesel engine exhaust stack shall not exceed 20% opacity as a six 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).
 6. Emission Limitation:
PE and PM10 emissions from the 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), Section 3.3, 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)
 7. 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), Section 3.3, 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. None

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1677000252 Emissions Unit ID: P903 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
Top Soil Screener with feed hopper, conveyor, screener, and 15 hp diesel engine	OAC rule 3745-31-05(A)(3) (PTI 16-02437)	no visible emissions from the feed hopper, conveyor, screener, and processed top soil pile(s), and loading and unloading activities associated with the top soil

screening process (See 2.a. and 2.b. below);

2.03 pounds (lbs) particulate emission (PE) per hour and 8.9 tons PE per year;

0.53 pounds (lbs) particulate matter - ten microns (PM10) per hour and 2.3 tons PM10 per year;

Emissions from the diesel engine shall not exceed the following rates:

Nitrogen Oxides (NOx):
0.46 pound per hour, 2.0 tons per year;
Carbon Monoxide (CO):
0.10 pound per hour, 0.4 ton per year;
Sulfur Dioxide (SO2):
0.03 pound per hour, 0.1 ton per year;
Organic Compounds (OC):
0.04 pound per hour, 2.2 tons per year.
Volatile Organic Compounds (VOC):
0.04 pound per hour, 2.2 tons per year.

See A.2.d and B.1 below.

Visible particulate emissions from the diesel engine exhaust stack shall not exceed 20% opacity as a six minute average, except as provided by rule.

PM emissions from the diesel engine exhaust stack shall not exceed 0.310 lb per MMBtu of actual heat input.

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

The PE emission limitation established by this rule is less stringent than the PE emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-17-07(A)

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

OAC rule 3745-18-06 (G)

OAC rule 3745-17-11(B)(1)

2. Additional Terms and Conditions

- (a) The permittee shall employ reasonably available control measures for the feed hopper, conveyor, screener, and processed top soil pile(s), and loading and unloading activities associated with the top soil screening process for the purpose of ensuring compliance with the "no visible emissions" requirement. In accordance with the permittee's permit application, the permittee has committed to watering on an "as needed" basis to ensure compliance.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure (s) is (are) necessary to ensure compliance with the "no visible emissions" requirement. Any required implementation of the control measure(s) shall continue until further observation confirms that use of the control measure(s) is unnecessary.

Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

The pounds per hour and tons per year NOX, CO, SO2, and OC limits 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. This emissions unit shall be operated with diesel fuel with a sulfur content less than 0.5% by weight.

C. Monitoring and/or Record Keeping 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:

operation(s) minimum inspection frequency

feed hopper hourly
 screen hourly
 loading and unloading activities hourly
 associated with the feed hopper and screen
 processed top soil piles daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Akron Regional Air Quality Management District (ARAQMD), 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.
4. The permittee shall note the following in an operations log for each operation (i.e., feed hopper, conveyor, screener, and processed top soil pile(s)), and loading and unloading activities associated with the top soil screening process) 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 operations log shall be maintained on site.
6. The permittee shall maintain a record of the sulfur content of each shipment of diesel fuel received for burning in this emissions unit.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any of 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.
2. The permittee shall submit deviation (excursion) reports which identify each day when a fuel other than low sulfur diesel fuel was burned in this emissions unit.
3. 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. Emission limitation:
 No Visible Emissions

 Applicable Compliance Method:
 Compliance with the visible emission limitations for the transfer points 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.
2. Emission Limitation:
 2.03 lbs PE per hour and 8.9 tons PE per year

 Applicable Compliance Method:

 The calculations used to determine the permitted emission limits are as follows:

 Hourly PE Emissions from Grinding:

$$(0.30 \text{ lb PE/ton of top soil processed}) \times (33.33 \text{ tons of top soil/hour}) \times (1-0.8)** = 2.00 \text{ lb PE/hour}$$

 *The emission factor of "0.30 lb PE/ton of top soil screened" is taken from Ohio EPA document Reasonably Available Control Measures for Fugitive Dust Sources ("RACM") Table 2.18-1 for screening sand and gravel.
 **Since the 0.30 lb PE/hour-ton of top soil screened emission factor does not include rain days and watering, it is likely that a conservative estimate of the emission reductions from these practices will reduce PE emissions by 80%.

 Hourly PE Emissions from Diesel Engine:

 PE emissions from the diesel engine are based on the emission factor of 0.0022 lb PE/hp-hr from AP-42, 5th Edition (October 1996), Section 3.3, Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engine (15 hp) as follows:

$$(0.0022 \text{ lb PE/hp-hr}) \times (15 \text{ hp}) = 0.03 \text{ lb PE/hour}$$

 Total Hourly PE Emissions:

$$2.00 + 0.03 = 2.03 \text{ lbs/hour}$$

This emissions unit shall be deemed to be in compliance with the lbs PE/hour limit if there are no visible emissions observed from the feed hopper, conveyor, screener, and processed top soil pile(s), and loading and unloading activities associated with the top soil screening process.

Annual PE Emissions:

The hourly PE emission rate is multiplied by 8760 hours and converted to tons to obtain the annual PE emissions.

3. Emission Limitation:
0.53 lbs PM10 per hour and 2.3 tons PM10 per year

Applicable Compliance Method:

The calculations used to determine the permitted emission limits are as follows:

Hourly PM10 Emissions from Grinding:

$$(0.075 \text{ lb PM10/ton of top soil processed}) \times (33.33 \text{ tons of top soil/hour}) \times (1-0.8)** = 0.50 \text{ lb PM10/hour}$$

*The emission factor of "0.075 lb PM10/ton of top soil screened" is taken from Ohio EPA document Reasonably Available Control Measures for Fugitive Dust Sources ("RACM") Table 2.18-1 for screening sand and gravel.

**Since the 0.075 lb PM10/hour-ton of top soil screened emission factor does not include rain days and watering, it is likely that a conservative estimate of the emission reductions from these practices will reduce PM10 emissions by 80%.

The emission factor for PM10 is based on a maximum of 25% of the total PE emissions being PM10 size from the particle size distribution presented in AP-42 Table B.2.2 (Category 6 for Grain Handling.)

Hourly PM10 Emissions from Diesel Engine:

PM10 emissions from the diesel engine are based on the emission factor of 0.0022 lb PM10/hp-hr from AP-42, 5th Edition (October 1996), Section 3.3, Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engine (15 hp) as follows:

$$(0.0022 \text{ lb PM10/hp-hr}) \times (15 \text{ hp}) = 0.03 \text{ lb PM10/hour}$$

Total Hourly PM10 Emissions:

$$0.50 + 0.03 = 0.53 \text{ lbs/hour}$$

This emissions unit shall be deemed to be in compliance with the lbs PM10/hour limit if there are no visible emissions observed from the feed hopper, conveyor, screener, and processed top soil pile(s), and loading and unloading activities associated with the top soil screening process.

Annual PM10 Emissions:

The hourly PM10 emission ra

4. Emission Limitation:
Emissions shall not exceed the following rates:

NOx: 0.46 pound per hour, 2.0 tons per year;
CO: 0.10 pound per hour, 0.4 ton per year;
SO2: 0.03 pound per hour, 0.1 ton per year;
OC: 0.04 pound per hour, 0.2 ton per year.
VOC: 0.04 pound per hour, 0.2 ton per year.

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), Section 3.3, Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engine (400 hp). The hourly emission rates are multiplied by 8760 hours and converted to tons to obtain the annual emissions.

5. Emission Limitation:
Visible particulate emissions from the diesel engine exhaust stack shall not exceed 20% opacity as a six 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).

6. Emission Limitation:
PE and PM10 emissions from the 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), Section 3.3, 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)

7. 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), Section 3.3, 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. None

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Facility ID: 1677000252 Emissions Unit ID: P904 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

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

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
Cheetah mulch Coloring System with 200 hp diesel engine/electric generator	OAC rule 3745-31-05(A)(3) (PTI 16-02437)	no visible emissions from the processed mulch pile(s), and loading and unloading activities associated with the mulch coloring drum (See 2.a. and 2.b. below); 2.43 pounds (lbs) particulate emission (PE) per hour and 10.7 tons PE per year; 0.93 pounds (lbs) particulate matter - ten microns (PM10) per hour and 4.1 tons PM10 per year; Emissions from the diesel engine shall not exceed the following rates: Nitrogen Oxides (NOx): 6.147 pounds per hour, 27.0 tons per year; Carbon Monoxide (CO): 1.33 pounds per hour, 5.8 tons per year; Sulfur Dioxide (SO2): 0.41 pound per hour, 1.8 tons per year; Organic Compounds (OC): 0.50 pound per hour, 2.2 tons per year. Volatile Organic Compounds (VOC): 0.50 pound per hour, 2.2 tons per year. See A.2.d and B.1 below. Visible particulate emissions from the diesel engine exhaust stack shall not exceed 20% opacity as a six minute average, except as provided by rule. PM emissions from the diesel engine exhaust stack shall not exceed 0.310 lb per MMBtu of actual heat input. SO2 emissions from the diesel engine exhaust stack shall not exceed 0.5 lb per MMBtu of actual heat input.
	OAC rule 3745-17-07(A)	

The PE emission limitation established by this rule is less stringent than the PE emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

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

OAC rule 3745-18-06 (G)

OAC rule 3745-17-11(B)(1)

2. Additional Terms and Conditions

- (a) The permittee shall employ reasonably available control measures for the mulch coloring drum, processed mulch pile(s), and the loading and unloading activities associated with the horizontal grinder for the purpose of ensuring compliance with the "no visible emissions" requirement. In accordance with the permittee's permit application, the permittee has committed to watering on an "as needed" basis to ensure compliance.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

The above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure (s) is (are) necessary to ensure compliance with the "no visible emissions" requirement. Any required implementation of the control measure(s) shall continue until further observation confirms that use of the control measure(s) is unnecessary.

Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

The pounds per hour and tons per year NOX, CO, SO₂, and OC limits 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. This emissions unit shall be operated with diesel fuel with a sulfur content less than 0.5% by weight.

C. Monitoring and/or Record Keeping 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:

operation(s) minimum inspection frequency

mulch coloring drum hourly

loading and unloading activities hourly
associated with the mulch coloring drum

processed mulch piles daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Akron Regional Air Quality Management District (ARAQMD), 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.
4. The permittee shall note the following in an operations log for each operation (i.e., mulch coloring drum, processed mulch pile(s), and the loading and unloading activities associated with the mulch coloring drum) at the minimum inspection frequency specified above whenever the emissions unit is in operation:
- the date and time of each observation;
 - the presence or absence of any visible emissions;
 - whether it was determined by the permittee that it was necessary to implement the control measures;
 - the dates and times the control measures were implemented; and,
 - the name of the person reporting each observation.

5. The operations log shall be maintained on site.

6. The permittee shall maintain a record of the sulfur content of each shipment of diesel fuel received for burning in this emissions unit.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any of the following occurrences:
- 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.
2. The permittee shall submit deviation (excursion) reports which identify each day when a fuel other than low sulfur diesel fuel was burned in this emissions unit.
3. 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. Emission limitation:
No Visible Emissions

Applicable Compliance Method:

Compliance with the visible emission limitations for the transfer points 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.

2. Emission Limitation:
2.43 lbs PE per hour and 10.7 tons PE per year

Applicable Compliance Method:

The calculations used to determine the permitted emission limits are as follows:

Hourly PE Emissions from Grinding:

$$(0.30 \text{ lb PE/ton of mulch loaded}) * X (33.33 \text{ tons of mulch/hour}) * X (1-0.8)** = 2.00 \text{ lb PE/hour}$$

*The emission factor of "0.30 lb PE/ton of mulch loaded" is taken from Ohio EPA document Reasonably Available Control Measures for Fugitive Dust Sources ("RACM") Table 2.17-1 for wood sawing/grinding.

**Since the 0.30 lb PE/hour-ton of mulch loaded emission factor does not include rain days and watering, it is likely that a conservative estimate of the emission reductions from these practices will reduce PE emissions by 80%.

Hourly PE Emissions from Diesel Engine:

PE emissions from the diesel engine are based on the emission factor of 0.0022 lb PE/hp-hr from AP-42, 5th Edition (October 1996), Section 3.3, Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engine (200 hp) as follows:

$$(0.0022 \text{ lb PE/hp-hr}) * X (200 \text{ hp}) = 0.43 \text{ lb PE/hour}$$

Total Hourly PE Emissions:

$$2.00 + 0.43 = 2.43 \text{ lbs/hour}$$

This emissions unit shall be deemed to be in compliance with the lbs PE/hour limit if there are no visible emissions observed from the mulch coloring drum, processed mulch piles, and the loading and unloading activities associated with the mulch coloring drum.

Annual PE Emissions:

The hourly PE emission rate is multiplied by 8760 hours and converted to tons to obtain the annual PE emissions.

3. Emission Limitation:
0.93 lbs PM10 per hour and 4.1 tons PM10 per year

Applicable Compliance Method:

The calculations used to determine the permitted emission limits are as follows:

Hourly PM10 Emissions from Grinding:

$$(0.075 \text{ lb PM10/ton of mulch loaded}) * X (33.33 \text{ tons of mulch/hour}) * X (1-0.8)** = 0.50 \text{ lb PM10/hour}$$

*The emission factor of "0.075 lb PM10/ton of mulch loaded" is taken from Ohio EPA document Reasonably Available Control Measures for Fugitive Dust Sources ("RACM") Table 2.17-1 for wood sawing/grinding.

**Since the 0.075 lb PM10/hour-ton of mulch loaded emission factor does not include rain days and watering, it is likely that a conservative estimate of the emission reductions from these practices will reduce PM10 emissions by 80%.

The emission factor for PM10 is based on a maximum of 25% of the total PE emissions being PM10 size from the particle size distribution presented in AP-42 Table B.2.2 (Category 6 for Grain Handling.)

Hourly PM10 Emissions from Diesel Engine:

PM10 emissions from the diesel engine are based on the emission factor of 0.0022 lb PM10/hp-hr from AP-42, 5th Edition (October 1996), Section 3.3, Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engine (200 hp) as follows:

$$(0.0022 \text{ lb PM10/hp-hr}) * X (200 \text{ hp}) = 0.43 \text{ lb PM10/hour}$$

Total Hourly PM10 Emissions:

$$0.50 + 0.43 = 0.93 \text{ lbs/hour}$$

This emissions unit shall be deemed to be in compliance with the lbs PM10/hour limit if there are no visible emissions observed from the mulch coloring drum, processed mulch piles, and the loading and unloading activities associated with the mulch coloring drum.

Annual PM10 Emissions:

The hourly PM10 emission rate is multiplied by 8760 hours and converted

4. Emission Limitation:

Emissions shall not exceed the following rates:

NOx: 6.17 pounds per hour, 27.0 tons per year;
CO: 1.33 pounds per hour, 5.8 tons per year;
SO2: 0.41 pound per hour, 1.8 tons per year;
OC: 0.50 pound per hour, 2.2 tons per year.
VOC: 0.50 pound per hour, 2.2 tons per year.

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), Section 3.3, Table 3.3-1, "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines" and the rated capacity of the diesel engine (400 hp). The hourly emission rates are multiplied by 8760 hours and converted to tons to obtain the annual emissions.

5. Emission Limitation:

Visible particulate emissions from the diesel engine exhaust stack shall not exceed 20% opacity as a six 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).

6. Emission Limitation:

PE and PM10 emissions from the 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), Section 3.3, 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)

7. 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), Section 3.3, 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. None