

Facility ID: 0448011576 Issuance type: Title V Final Permit

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 III" and before "I. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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Part II - Specific Facility Terms and Conditions

a State and Federally Enforceable Section

1. None

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b State Only Enforceable Section

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0448011576 Emissions Unit ID: F001 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. 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>
Paved roadways and parking areas (see A.I.2.b for an identification of the affected areas)	OAC rule 3745-17-07(B)(4)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(8), (B)(9)	Control measures to minimize or eliminate visible particulate emissions of fugitive dust (see A.I.2.d, A.I.2.g and A.I.2.i through A.I.2.k).
Unpaved roadways and parking areas (see A.I.2.c for an identification of the affected areas).	OAC rule 3745-31-05(A)(3) (PTI 04-1190)	No visible particulate emissions except for a period of time not to exceed one minute during any sixty-minute observation period for any paved roadway or parking area (see A.I.2.l)
	OAC rule 3745-17-07(B)(5)	See A.I.2.a below.
Paved and unpaved roadways, and parking areas.	OAC rule 3745-17-08(B), (B)(2)	Control measures to minimize or eliminate visible particulate emissions of fugitive dust (see A.I.2.e through A.I.2.h, A.I.2.j and A.I.2.k).
	OAC rule 3745-31-05(A)(3) (PTI 04-1190)	No visible particulate emissions except for a period of time not to exceed three minutes during any sixty-minute observation period for any unpaved roadway or parking area (see A.I.2.l)
	OAC rule 3745-31-05(A)(3) (PTI 04-1190)	5.1 tons per year (tpy) of particulate emissions as PM10 for all paved and unpaved roadways and parking areas.

2. Additional Terms and Conditions

- a. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- b. The paved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:
 - paved roadways: entrance roads (Area B)
 - paved parking areas: employee parking area, area around building (Area A), and future parking area (Area E)
- c. The unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:
 - unpaved roadways: haul road to disposal area (Area C)
 - unpaved parking area: small hauler's drop off area (Area D)
- d. The permittee shall employ reasonably available control measures on all paved 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 paved roadways and parking areas by sweeping and flushing with water at sufficient frequencies to ensure

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

- e. The permittee shall employ reasonably available control measures on the unpaved shoulders of all paved roadways 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 shoulders of all paved roadways with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- f. The permittee shall employ reasonably available control measures on all unpaved roadways 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 with water and/or any other suitable dust suppression chemicals at treatment sufficient frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- g. 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 a paved or 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.
- h. Any unpaved roadway, 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 with the control measure(s) specified above for paved surfaces. Any unpaved roadway that takes the characteristics of a paved roadway due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways. Any unpaved roadway that is paved shall be subject to the visible emission limitation for paved roadways.
- i. 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.
- j. 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.
- k. 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 3745-17-08.
- l. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B), (B)(8), (B)(9).

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II. Operational Restrictions

- 1. When a dust suppressant is used for controlling fugitive dust from the unpaved road segments and parking areas, the following restrictions shall be followed:
 - a. The permittee shall certify or possess certification that all dust suppressants used to control fugitive dust meet the PCB limitations set forth in 40 CFR 761, and that there are no listed hazardous wastes or characteristic hazardous wastes as set forth in 40 CFR 261.
 - b. The permittee shall not apply used oil as defined by OAC rule 3745-279-01(A)(12) as a dust suppressant.
 - c. The dust suppressant shall be applied in such a manner as to prevent pollution of waters of the State as required by the Ohio Revised Code, section 6111.

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III. Monitoring and/or Record Keeping Requirements

- 1. Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadways and parking areas in accordance with the following frequencies:
 - paved roadways and parking areas: all
minimum inspection frequency: daily
 - unpaved roadways and parking areas: all
minimum inspection frequency: 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 Toledo Division of Environmental Services (TDOES), 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. Such modified inspection frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.
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 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 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 section A.III.4.d above, shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

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IV. 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 requirements specified in Part I - General Term and Condition A.I.c.

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V. Testing Requirements

- a. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 1. Emission Limitation:

No visible particulate emissions except for a period of time not to exceed one minute during any sixty-minute observation period for any paved roadway or parking area. No visible particulate emissions except for a period of time not to exceed three minutes during any sixty-minute observation period for any unpaved roadway or parking area.

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall also 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)(d) of OAC rule 3745-17-03. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.
 - b. Emission Limitation:

5.1 tpy of particulate emissions as PM10

Applicable Compliance Method:

This emission limitation was developed by applying a 70% control efficiency for dust suppression to a maximum potential uncontrolled emission rate of 6.4 tpy PM10 for unpaved roadways and parking areas and 10.8 tpy PM10 for paved roadways and parking areas. These uncontrolled emission rates were calculated using the AP-42 emission factors for paved roadways (section 13.2.1, dated 10/97) and unpaved roadways (section 13.2.2, dated 9/98). Compliance with this annual limit shall be demonstrated

through the monitoring and record keeping requirements in section A.III of this permit.

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VI. **Miscellaneous Requirements**

1. None

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B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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>
2. Additional Terms and Conditions			
1.	None		

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0448011576 Emissions Unit ID: F002 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. 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>
MSW landfill equipped with an active gas collection and control system (open flare): for controlled emissions from flare:	40 CFR Part 60, Subpart WWW	See A.I.2.a through A.I.2.c below.
	OAC rule 3745-17-07(A)(1)	See A.I.2.d below.
	OAC rule 3745-17-11(B)(1)	See A.I.2.d below.
	OAC rule 3745-18-06(E)(2)	See A.I.2.d below.
	OAC rule 3745-21-08(B)	See A.I.2.e below.
	OAC rule 3745-23-06(B)	See A.I.2.e below.
	OAC rule 3745-31-05(A)(3) (PTI 04-1190)	0.3 lb/hr of nonmethane organic compounds (NMOC) 1.2 tpy of NMOC
		47.3 lbs/hr of methane 207 tpy of methane
		0.97 lb/hr of particulate emissions 4.25 tpy of particulate emissions
		0.8 lb/hr of sulfur dioxide (SO2) 3.53 tpy of SO2
	2.33 lbs/hr of nitrogen oxides (NOx) 10.24 tpy of NOx	
	43.2 lbs/hr of carbon monoxide (CO) 189.1 tpy of CO	
	0.01 lb/hr of hydrochloric acid (HCl) 0.036 tpy of HCl	
	0.01 lb/hr of chlorine gas (Cl2) 0.03 tpy of Cl2	
	See A.I.2.f below.	
for fugitive landfill particulate emissions (see A.I.2.g for an identification of the affected areas):	OAC rule 3745-17-07(B)(1)	Visible fugitive particulate emissions shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.g through A.I.2.m below.
	OAC rule 3745-31-05(A)(3) (PTI 04-1190)	1.93 tpy of particulate emissions 11.9 tpy of particulate emissions as PM10
for fugitive landfill gas:	OAC rule 3745-31-05(A)(3) (PTI 04-1190)	See A.I.2.n below. 20.0 tpy of NMOC 3,446 tpy of methane 7.8 tpy of volatile organic compounds (VOC)

0.6 tpy of Cl2

See A.I.2.o below.

2. Additional Terms and Conditions

- a. The active collection system shall satisfy the following requirements, as specified in 40 CFR Part 60.752 (b)(2)(ii)(A):

(a)

i. The system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment.

ii. The system shall collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active, or 2 years or more if closed or at final grade.

iii. The system shall collect gas at a sufficient extraction rate.

iv. The system shall be designed to minimize off-site migration of subsurface gas.

- b. The collected gas shall be vented to an open flare designed and operated as follows:

i. The flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

ii. The flare shall be operated with a flame present at all times.

iii. The permittee shall comply with either the requirements in paragraphs (a) and (b) or the requirements in paragraph (c):

- (a) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined as follows:

$$H_t = \sum_{i=1}^n C_i H_i$$

where:

H_t = net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 degrees C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 degrees C;

k = constant, 1.740×10^{-7} (1/ppm) (g mole/scm) (MJ/kcal) where the standard temperature for (g mole/scm) is 20 degrees C.

C_i = concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77; and

H_i = net heat of combustion of sample component i , kcal/g mole at 25 degrees C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 if published values are not available or cannot be calculated.

- b. (b) A steam-assisted and nonassisted flare(s) shall be designed for and operated with an exit velocity of less than 18.3 m/sec. (60 ft/sec), except:

(i) steam-assisted and nonassisted flare(s) shall be designed for and operated with an exit velocity of equal to or greater than 18.3 m/sec. (60 ft/sec), but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf); and

(ii) steam-assisted and nonassisted flare(s) shall be designed for and operated with an exit velocity of less than the velocity, V_{max} , and less than 122 m/sec (400 ft/sec) are allowed; as determined by

$$\log_{10} (V_{max}) = (H_t + 28.8)/31.7$$

where:

V_{max} = maximum permitted velocity, M/sec,

28.8 = constant

31.7 = constant

H_t = the net heating value as determined in section 2.b.iii.(a) above.

- b. (c) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max} , as determined by the following

equation:

$$V_{max} = (X_{h2} - K_1) K_2$$

where:

V_{max} = maximum permitted velocity, m/sec.

K_1 = constant, 6.0 volume-percent hydrogen.

K_2 = constant, 3.9(m/sec)/volume-percent hydrogen.

X_{h2} = the volume-percent of hydrogen, on a wet basis, as calculated by using the ASTM Method D1946-77.

iv. Air-assisted flare(s) shall be designed for and operated with an exit velocity of less than the velocity, V_{max} , as determined by the following equation:

$$V_{max} = 8.706 + 0.7084(Ht)$$

where:

V_{max} = maximum permitted velocity, m/sec

8.706 = constant

0.7084 = constant

Ht = the net heating value as determined in section 2.b.iii.(a) above

- c. The collection and control system may be capped or removed provided that all of the following conditions, as specified in 40 CFR Part 60.752(b)(2)(v), are met:
- i. The landfill shall be no longer accepting solid waste and be permanently closed (pursuant to 40 CFR Part 258.60).
 - ii. The collection and control system shall have been in operation a minimum of 15 years.
 - iii. As specified in 40 CFR Part 60.754(b), the calculated NMOC gas produced by the landfill shall be less than 55 tpy on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- e. The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-1190.
- f. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B), OAC rule 3745-23-06(B), and 40 CFR Part 60, Subpart WWW.
- g. The landfill areas and operations that are covered by this permit and subject to the requirements of OAC rule 3745-17-08 are listed below:
- all landfill areas where solid wastes are deposited;
 - overburden removal;
 - construction of cells;
 - construction of haul roads;
 - MSW dumping, transfer, compaction and covering;
 - bulldozing operations;
 - wind erosion; and
 - closure of cells.
- h. The permittee shall employ reasonable available control measures on all landfill operations associated with the landfill cell 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 cell load-in operations (i.e., MSW dumping, transfer, compaction and covering) with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- i. The above-mentioned control measures shall be employed for each cell load-in operation of the landfill cell 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 measures is unnecessary.

- j. The permittee shall employ reasonably available control measures on all surface working operations associated with the landfill cell 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 surface working operations (i.e., overburden removal, construction of cells, construction of haul roads, bulldozing operations, and closure of cells) with water and/or other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- k. The permittee shall employ reasonably available control measures for wind erosion from surfaces associated with the landfill cell 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 landfill surface with water and/or other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- l. The above-mentioned control measures shall be employed for surface operations and wind erosion from the landfill cell 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 the landfill cell 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.
- m. 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 3745-17-08.
- n. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B) (1) and OAC rule 3745-17-08(B).

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II. Operational Restrictions

1. The permittee shall operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active, or for 2 years or more if closed or at final grade.
2. The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions:
 - a. A fire or increased well temperature. (The permittee shall record instances when positive pressure occurs in efforts to avoid a fire.)
 - b. Use of a geomembrane or synthetic cover. (The permittee shall develop acceptable pressure limits in the design plan.)
 - c. A decommissioned well. (A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by the Director of Ohio EPA.)
3. The permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees C and with either a nitrogen level less than 20% or an oxygen level less than 5%. The permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
4. The permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill.
5. If monitoring demonstrates that the operational requirements in sections A.II.2 through A.II.4 are not met, corrective action shall be taken as specified in 40 CFR Part 60.755(a)(3) through 40 CFR Part 60.755(a)(5) or 40 CFR Part 60.755(c). If corrective actions are taken as specified in 40 CFR Part 60.755, the monitored exceedance is not a violation of the operational requirements of this section.
6. The permittee shall operate the collection system such that all collected gases are vented to a control system designed and operated in compliance with section A.I.2.a. In the event, the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour.
7. The permittee shall operate the flare at all times when the collected gas is routed to the system.
8. A flame shall be maintained at all times in the flare's burner when collected gas is sent through the flare.
9. The permittee shall not accept or dispose of any "asbestos material" as defined in OAC rule 3745-20-01, or asbestos-containing waste material as defined in 40 CFR 61.141, containing more than 1 percent asbestos as determined using the methods specified in Appendix A, Subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy. The receipt or disposal of any asbestos or asbestos-containing waste without proper approval of the Ohio EPA is a violation of the NESHAPS for asbestos and the Ohio EPA Permit to Install rules.

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III. Monitoring and/or Record Keeping Requirements

1. For the active gas collection system, the permittee shall install a sampling port and a thermometer, other temperature measuring device or an access port for temperature measurements at each wellhead and record the following information on a monthly basis:
 - a. the gauge pressure in the gas collection header at each individual well;
 - b. the nitrogen or oxygen concentration in the landfill gas; and
 - c. the temperature of the landfill gas.
2. The permittee shall monitor surface concentrations of methane on a quarterly basis as follows:
 - a. The methane concentration along the entire perimeter of the collection area and along a serpentine pattern spaced 30 meters apart (or a site-specific established spacing) and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover.
 - b. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.
 - c. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
 - d. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements listed in section A.II.4:
 - i. The location of each monitored exceedance shall be marked and the location recorded.
 - ii. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.
 - iii. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding time line for installation may be submitted to the Ohio EPA for approval. No further monitoring of that location is required until the action specified has been taken.
 - iv. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified above shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified above shall be taken.
 - v. Each permittee seeking to demonstrate compliance with 40 CFR Part 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR Part 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.
3. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:
 - a. a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and
 - b. a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes.
4. If a gas flow rate measuring device is not installed then the permittee shall secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
5. The permittee shall maintain the following information for the life of the control equipment as measured during the initial performance test or compliance demonstration:
 - a. For the purposes of calculating the maximum expected gas generation flow from the landfill to determine compliance with 40 CFR Part 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and kinetic factors should be those published in the most recent AP-42 or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been demonstrated as specified in 40 CFR Part 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.
 - i. For sites with unknown year-to-year solid waste acceptance rate:

$$Q = 2 L R [e^{-kc} - e^{-kt}]$$

where;

Q = maximum expected gas generation flow rate, cubic meters per year

L = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, per year

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less (If the equipment is installed after closure, t is the age of the landfill at installation), years

c = time since closure, years [for an active landfill c = 0 and $\exp(-kc) = 1$]

ii. For sites with known year-to-year solid waste acceptance rate:

Q = the summation of the quantity $(2 k L M e^{-kt})$ for $i=1$ through $i=n$

where;

Q = maximum expected gas generation flow rate, cubic meters per year

k = methane generation rate constant, per year

L = methane generation potential, cubic meters per megagram solid waste

M = mass of solid waste in the i th section, megagrams

t = age of the i th section, years

iii. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in sections A.III.5.a.i and A.III.5.a.ii. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in sections A.III.5.a.i. or A.III.5.a.ii or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment. (The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Ohio EPA.);

b. the density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR Part 60.759(a)(1);

c. the flare type (i.e., steam-assisted, air-assisted, or non-assisted);

d. all visible emission readings;

e. heat content determinations of the gas;

f. flow rate or bypass flow rate measurements (This requirement is waived if the permittee complies with section A.III.4);

g. exit velocity determinations made during the performance test as specified in 40 CFR Part 60.18; and

h. continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the flare pilot flame or flare flame is absent.

6. The permittee shall properly operate and maintain a device to continuously monitor the flare flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record the following information each day:

a. all periods during which there was no flare flame;

b. the downtime for the flare and monitoring equipment when the collection and control system is in operation.

7. The permittee shall maintain, for the life of the collection system, an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
8. Pursuant to 40 CFR 60.758(c)(2), the permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified in section A.III.
9. The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity of the landfill, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either hardcopy or electronic formats are acceptable. These records, may be also required by the OEPA, Division of Solid and Infectious Waste Management, and shall satisfy this permit condition.
10. Except as otherwise provided in this section, the permittee shall perform inspections of the landfill areas and operations in accordance with the following frequencies:

landfill areas and operations minimum inspection frequency

all landfill areas where solid wastes are deposited daily
 overburden removal daily
 construction of cells and haul roads daily
 MSW dumping, transfer, compaction and covering daily
 bulldozing operations daily
 wind erosion daily
 closure of cells daily

11. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures for fugitive landfill particulate emissions. The inspections shall be performed during representative, normal operating conditions. No inspection shall be necessary for a landfill operating 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.
12. The permittee may, upon receipt of written approval from the Toledo Division of Environmental Services (TDOES), 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. Such modified inspection frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.
13. 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 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 section A.III.13.d shall be kept separately for each landfill area and operation and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

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IV. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection required by section A.III.10 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 required by sections A.I.2.h, A.I.2.j and A.I.2.k that was to be implemented as a result of an inspection, was not implemented;
2. The following shall be reported to the TDOES within one hour after the occurrence, or as soon as reasonably possible:
 - a. any breakdown or malfunction of the landfill gas collection system resulting in the emission of raw landfill gas emissions to the atmosphere,
 - b. any breakdown or malfunction of the landfill gas control system exceeding one hour resulting in the emission of raw landfill gas emissions to the atmosphere.

Immediate remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere.
3. The permittee shall submit a closure report to the appropriate Ohio EPA District Office and the TDOES within 30 days of waste acceptance cessation. The Ohio EPA may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR Part 258.60. If a closure report has been submitted to the Ohio EPA, no additional wastes may be placed into the landfill without filing a notification of modification as described in 40 CFR Part 60.7(a)(4).
4. The permittee shall submit an equipment removal report to the appropriate Ohio EPA District Office and the TDOES 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain the information specified in 40 CFR Part 60.757(e)(1). The Ohio EPA may request additional information as may be necessary to verify that all of the conditions for removal in 40 CFR Part 60.752(b)(2)(v) have been met.
5. The permittee shall submit annual deviation reports that identify any of the following occurrences:
 - a. the value and length of time for exceedance of applicable parameters monitored below:
 - i. any record which indicates that the gauge pressure in the gas collection header at each individual well was positive or operated under positive pressure to avoid a fire or increased well temperature;
 - ii. any record which indicates that the nitrogen or oxygen concentration in the landfill gas was greater than

20% or 5%, respectively; and

- iii. any record which indicates that the temperature of the landfill gas was greater than 55 degrees C;
- b. a description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as recorded under section A.III.8;
- c. a description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating;
- d. all periods when the collection system was not operating in excess of 5 days;
- e. the location of each exceedance of the 500 parts per million methane concentration as provided in section A.II.4 and the concentration recorded at each location for which an exceedance was recorded in the previous month; and
- f. the date of installation and the location of each well or collection system expansion added pursuant to 40 CFR Part 60.755(a)(3), (b), and (c)(4).

The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR Part 60.8. Subsequent annual reports shall be submitted by January 31 of each year.

- 6. The permittee shall submit the following information with the initial performance test report required pursuant to 40 CFR Part 60.8:
 - a. a diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;
 - b. the data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
 - c. the documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;
 - d. the sum of the gas generation flow rate for all areas from which collection wells have been excluded based on nonproductivity and the calculations as specified in 40 CFR Part 60.755 of gas generation flow rate for each excluded area;
 - e. the provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and
 - f. the provisions for the control of off-site migration.

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V. Testing Requirements

- 1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
 - no visible emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours
 - Applicable Compliance Method:
 - Compliance shall be demonstrated in accordance with Test Method 22 as set forth in "Appendix on Test Methods " in 40 CFR Part 60. Alternate, equivalent methods may be used upon approval by the TDOES.
 - b. Emission Limitation:
 - 43.2 lbs/hr of CO
 - Applicable Compliance Method:
 - The emission limitation represents the potential to emit calculated using AP-42 Section 2.4-1 (dated 11/98), an emission factor for CO of 12,000 kg CO/10 (exp6) dscm methane, a maximum methane flow rate of 1.93 x 10 (exp7) m3/yr, a conversion of 0.4536 kg/pound, and 8760 hrs/yr. Since the emission limitation represents the emission unit's potential to emit, no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.
 - c. Emission Limitation:
 - 2.33 lbs/hr of NOx
 - Applicable Compliance Method:
 - The emission limitation represents the potential to emit calculated using AP-42 Section 2.4-1 (dated

11/98), an emission factor for PM of 270 kg NOx/10 (exp6) dscm methane, a maximum methane flow rate of 1.93×10 (exp7) m³/yr, a conversion of 0.4536 kg/pound, and 8760 hrs/yr. Since the emission limitation represents the emission units' potential to emit, no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

d. Emission Limitations:

Controlled emissions from Flare

0.3 lb/hr of NMOC
47.3 lbs/hr of methane

Applicable Compliance Method:

The emission limitations were developed by applying a 98% reduction efficiency for control with a flare to a maximum calculated flare gas stream of 13.8 lbs of NMOC/hr and 2,360 lbs of methane/hr. AP-42 Section 2.4.4 (dated 11/98) emission factors were used to calculate the total uncontrolled methane and NMOCs. A collection efficiency of 98% was used to calculate the amount of methane and NMOCs destroyed. The remainder (207 tpy of methane and 1.2 tpy of NMOCs) are emitted over 8760 hrs/yr. Compliance shall be demonstrated by ensuring the flare operates at the proper efficiency through the flare monitoring and record keeping requirements specified in section A.III.

f. Emission Limitation:

0.97 lb/hr of particulate emissions

Applicable Compliance Method:

The emission limitation represents the potential to emit calculated using AP-42 Section 2.4-1 (dated 11/98), an emission factor for PM of 270 kg PM/10 (exp6) dscm methane, a maximum methane flow rate of 1.93×10 (exp7) m³/yr, a conversion of 0.4536 kg/pound, and 8760 hrs/yr. Since the emission limitation represents the emission units' potential to emit, no recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

g. Emission Limitation:

0.8 lb/hr of SO₂

Applicable Compliance Method:

The emission limitation represents the potential to emit calculated assuming that all sulfur containing compounds in landfill gas react to form SO₂. The potential to emit calculations were based on a sulfur compound concentration of 46.9 ppm from AP-42 Section 2.4-1 (dated 11/98), a maximum gas flow rate to the flare of 1.93×10 (exp7) m³/yr, a conversion of 0.4536 kg/pound, and 8760 hrs/yr. Since the emission limitation represents the emission units' potential to emit, no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

h. Emission Limitation:

0.01 lb/hr of HCl

Applicable Compliance Method:

The emission limitation represents the potential to emit calculated assuming that all chlorine containing compounds collected in landfill gas react to form HCl during combustion in the flare. The potential to emit calculations were based on a chlorine compound concentration of 42.0 ppm from AP-42 Section 2.4-1 (dated 11/98), a maximum chlorine compound flow rate to the flare of 1.46×10 (exp3) m³/yr, a conversion of 0.4536 kg/lb, and 8760 hrs/yr. Since the emission limitation represents the emission units' potential to emit, no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

i. Emission Limitation:

0.01 lb/hr of Cl₂

Applicable Compliance Method:

The emission limitation represents the potential to emit calculated assuming that all chlorine containing compounds collected in landfill gas react to form HCl during combustion in the flare. AP-42 provides an average capture efficiency of 75% and an estimated control efficiency of 98% for the flare in Section 2.4 (dated 11/98). Section A.V.2 estimates the uncontrolled Cl₂ emissions to be 2.3 tpy and the fugitive to be (1-.75) or 0.6 tpy of Cl₂. The difference (2.3-0.6 tpy) is the amount of Cl₂ that goes to the flare where 98% is combusted to HCl and the remaining 2% or 0.3 tpy passes through the flare. Conversion of 0.3 tpy Cl₂ to lb/hr of Cl₂ utilizes conversion factors of 8760 hrs/yr and 2000 lbs/ton. Since the emission limitation represents the emission units' potential to emit, no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitation.

j. Emission Limitations:

Controlled emissions from Flare

1.2 tpy of NMOC
 207 tpy of methane
 4.25 tpy of particulate emissions
 3.53 tpy of SO₂
 10.24 tpy of NO_x
 189.1 tpy of CO
 0.036 tpy of HCl
 0.03 tpy of Cl₂

Applicable Compliance Method:

The tpy limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitations.

k. Emission Limitation:

Visible fugitive particulate emissions shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with OAC rule 3745-17-03(B)(3).

l. Emission Limitation:

Fugitive Landfill Particulate Emissions

1.93 tpy of particulate emissions
 11.9 tpy of particulate emissions as PM₁₀

Applicable Compliance Method:

Emission limitations were developed as follows:

- i. applying a 70% control efficiency for dust suppression to a maximum potential uncontrolled emission rate of 12.35 tpy of particulate emissions as PM₁₀ for unpaved gravel roadways during construction, based on AP-42, section 13.2.2 (dated 9/98) emission factors;
- ii. a maximum potential uncontrolled emission rate of 0.03 tpy of particulate emissions for material handling operations, based on AP-42, section 13.2.4 (dated 1/95) emission factors;
- iii. a maximum potential uncontrolled emission rate of 1.9 tpy of particulate emissions for wind erosion from exposed areas, based on AP-42, table 11.9-4 (dated 7/98) emission factors; and
- iv. a maximum potential uncontrolled emission rate of 8.2 tpy of particulate emissions as PM₁₀ for bulldozing operations, based on AP-42, table 11.9-1 (dated 7/98) emission factors.

The particulate emissions and particulate emissions as PM₁₀ limits are the sums of the above-mentioned emissions.

Compliance shall be demonstrated through the fugitive dust monitoring and record keeping requirements in section A.III.

m. Emission Limitations:

Fugitive Landfill Gas

20.0 tpy of NMOC
 3,446 tpy of Methane
 7.8 tpy of VOC
 0.6 tpy of Cl₂

Applicable Compliance Method:

The annual emission limitations represent the potential to emit based on AP-42 emission factors for landfill gas generation, section 2.4 (dated 11/98). Maximum emissions will occur in the year 2021 and are based on the following:

- i. maximum daily landfill waste acceptance of 1,500 tons/day;
- ii. maximum landfill capacity of 10,073,000 tons compacted waste (9.157 x 10⁶ Mg);
- iii. NMOC concentration data obtained from AP-42, section 2.4 (dated 11/98) value of 595 ppm; and
- iv. an assumed landfill gas collection system efficiency of 75% based on AP-42, section 2.4 (dated 11/98) factors.

Since the annual limitations represent the emissions unit's potential to emit, no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with the above limitations.

2. The nitrogen level at each interior wellhead shall be determined using Method 3C of 40 CFR Part 60,

Appendix A, unless an alternative test method is established as allowed by 40 CFR Part 60.752(b)(2)(i).

3. The oxygen level at each interior wellhead shall be determined by an oxygen meter using Method 3A of 40 CFR Part 60, Appendix A, unless an alternative test method is established as allowed by 40 CFR Part 60.752(b)(2)(i), except that:
 - a. the span shall be set so that the regulatory limit is between 20 and 50% of the span;
 - b. a data recorder is not required;
 - c. only two calibration gases are required, a zero and span, and ambient air may be used as the span;
 - d. a calibration error check is not required; and
 - e. the allowable sample bias, zero drift, and calibration drift are plus or minus 10%.
4. The permittee shall conduct or have conducted, within 90 days after the installation of the collection and control system, an initial performance test to demonstrate that the flare can operate in conformance with the requirements specified in 40 CFR Part 60.18. The net heating value of the gas being combusted in the flare and the actual exit velocity of the flare shall be determined in accordance with the procedures and methods specified in 40 CFR Part 60.18. The visible emission evaluation shall be conducted in accordance with the procedures specified in section A.V.2.
5. After the installation of a collection and control system in compliance with 40 CFR Part 60.755, the permittee shall calculate the NMOC emission rate for the purposes of determining when the system can be removed as provided in 40 CFR Part 60.752(b)(2)(v) in accordance with the equation and procedures specified 40 CFR Part 60.754(b), (b)(1), and (b)(2). The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Ohio EPA as provided in 40 CFR Part 60.752(b)(2)(i)(B).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0448011576 Emissions Unit ID: F002 Issuance type: Title V Final Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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>
2. Additional Terms and Conditions		
1. None		

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

- 1. None

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IV. Reporting Requirements

- 1. None

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V. Testing Requirements

- 1. None

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VI. Miscellaneous Requirements

- 1. None

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Facility ID: 0448011576 Emissions Unit ID: Z003 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

I. 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>
Load-in and load-out of storage piles (see A.I.2.b for an identification of the storage piles)	OAC rule 3745-17-07 (B)(6)	See A.I.2.a below.
	OAC rule 3745-17-08 (B), (B)(6)	control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see A.I.2.c, A.I.2.d. and A.I.2.g)
Wind erosion from storage piles (see A.I.2.b for an identification of the storage piles)	OAC rule 3745-31-05(A)(3) (PTI 04-1190)	no visible emissions except for one minute in any hour
	OAC rule 3745-17-07 (B)(6)	See A.I.2.h below.
	OAC rule 3745-17-08 (B), (B)(6)	See A.I.2.a below.
		best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see A.I.2.e, A.I.2.f, and A.I.2.g).
		no visible emissions except for one minute in any hour
	OAC rule 3745-31-05(A)(3) (PTI 04-1190)	7.4 tpy of particulate emissions as PM10
		See A.I.2.h below.

2. Additional Terms and Conditions

- a. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- b. The storage piles that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

all overburden storage piles
 all clay storage piles
 all stone storage piles

- c. The permittee shall employ reasonably 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 maintaining adequate moisture in loads prior to dumping and adding water, if necessary, to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- d. 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.
- e. The permittee shall employ reasonably 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 maintaining adequate moisture in piles and adding water, if necessary, to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- f. 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.
- 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 requirements of OAC rule 3745-17-08.
- h. The requirements of this rule also include compliance with the requirements of rule 3745-17-08(B), (B) (6).

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II. Operational Restrictions

1. None

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III. 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: all
 - minimum load-in inspection frequency: 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: all
 - minimum load-out inspection frequency: 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: all
 - minimum wind erosion inspection frequency: 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 Toledo Division of Environmental Services

(TDOES), 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. Such modified inspection frequencies would not be considered a minor or significant modification that would be subject to the Title V permit modification requirements in paragraphs (C)(1) and (C)(3) of OAC rule 3745-77-08.

7. 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, 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 section A.III.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.

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IV. Reporting Requirements

- 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.
- The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.I.c.

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V. Testing Requirements

- Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - Emission Limitation:

No visible particulate emissions except for a period of time not to exceed one minute in any one hour for any load-in and load-out of storage piles. No visible particulate emissions except for a period of time not to exceed one minute during any hour for any wind erosion from storage piles.

Applicable Compliance Method:

Compliance shall be determined through the monitoring and record keeping requirements of section A.III. If required, compliance shall also 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)(d) of OAC rule 3745-17-03. Alternate, equivalent methods may be used upon approval by the TDOES.
 - Emission Limitation:

7.4 tpy of particulate emissions as PM10

Applicable Compliance Method:

This emission limitation was developed by applying a 50% control efficiency for dust suppression during load-in and load-out to a maximum potential uncontrolled emission rate of 0.057 tpy of particulate emissions as PM10 and a 50% control efficiency for dust suppression for wind erosion to a maximum potential uncontrolled emission rate of 14.75 tpy of particulate emissions as PM10. These uncontrolled emission rates were calculated using the OEPA RACM document emission factors (section 2.1.2, dated 8/83) and AP-42 emission factors for industrial wind erosion (section 13.2.5, dated 1/95). Compliance with this annual limit shall be demonstrated through the monitoring and record keeping requirements in section A.III of this permit.

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VI. Miscellaneous Requirements

- 1. None

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Facility ID: 0448011576 Emissions Unit ID: Z003 Issuance type: Title V Final Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

I. 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>
2. Additional Terms and Conditions			
1.	None		

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II. Operational Restrictions

- 1. None

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III. Monitoring and/or Record Keeping Requirements

- 1. None

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IV. Reporting Requirements

- 1. None

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V. Testing Requirements

- 1. None

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VI. Miscellaneous Requirements

- 1. None