

**Example T&Cs - Roadways and Parking Areas with applicable OAC rules;
voluntary restriction per OAC rule 3745-31-05(C) to avoid BAT:**

Source Description: Asphalt plant roadways

F001 -Roadway and parking lots; 6.9 tons of PM with control by adequate moisture, up to 25,000 mile traveled per year on unpaved roadways, 25,000 miles traveled per year on paved roadways.

Qualifying Criteria:

Please review the following criteria described that the template was based upon.

- PM/PM10 emissions are less than 10 TPY based on the use of watering.

Calculations:**F001 Unpaved/Paved Roadway****Unpaved Roadways**

From AP-42 (12/03) Chapter 13.2.2 equations (1a) and (2) section 13.2.2.2, titled "Emission Calculation and Correction Parameters":

$$EF = k(s/12)^a(W/3)^b(365-P)/365 \text{ lb/vmt}$$

where;

k, a, b = empirical constants; k=4.9 for PE = 1.5 for PM10, a=0.70 for PE = 0.90 for PM10, b=0.45

p = Number of days in a year with at least 0.01 inch of precipitation=166.5 days

s = silt content of road surface material (%)=10 %

W = mean vehicle weight (tons)=23.5 tons

$$EF = 5.93 \text{ lb PE/vmt}$$

$$EF = 1.75 \text{ lb PM10/vmt}$$

Company requests a maximum 25,000 miles of travel per year on unpaved roads

$$PTE = 5.93 \text{ lb PE/vmt (25,000 mile/yr)(1 t/2000 lb) = 74 tons PE per year}$$

$$PTE = 1.75 \text{ lb PM10/vmt (25,000 mile/yr)(1 t/2000 lb) = 21.9 tons PM10 per year}$$

Paved Roadways

From AP-42 Chapter 13.2.1 dated 12/2003, equation (2) of section 13.2.1.3, titled "Predictive Emission factor Equations":

$$EF = k(sL/2)^{0.65}(W/3)^{1.5}(1-(p/4N))-C \text{ lb/VMT; where}$$

k = Base emission factor=0.082 for PE and 0.016 for PM10

sL = Road surface silt loading=12

W = Average weight of the vehicles traveling the road=23.5 tons

p = Number of days in a year with at least 0.01 inch of precipitation=166.5 days

N = Number of days in the averaging period = 365

C = Emission factor for 1980's vehicle fleet exhaust, break wear and tire wear =

0.00047 for PE and PM10

EF = 5.10 lb PE/vmt

EF = 0.996 lb PM10/vmt

Company requests a maximum 25,000 miles of travel per year on paved roads.

PTE = 5.10 lb PE/vmt (25,000 miles/yr)(1 t/2000 lb) = 64 tons PE per year

PTE = 0.996 lb PM10/vmt (25,000 miles/yr)(1 t/2000 lb) = 12.5 tons PM10 per year

Company has requested that these totals represent a worst case for emissions of fugitive dust, the numbers are additive.

Applying control efficiencies from RACM, total emissions, PM (PM10<PM) < 10 TPY, therefore, BAT is not applicable if watering of roadways and parking areas is performed.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. Applicable Emissions Limitations and/or Control Requirements**

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

Operations, Property, and/or Equipment - (F001) - Roadways and Parking Areas

| Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|--|---|
| Unpaved roadways and parking areas | |
| OAC rule 3745-31-05(C) Voluntary Restriction to Avoid BAT | See Section A.2.a. |
| OAC rule 3745-17-07(B)(5) | No visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed thirteen minutes during any sixty minute observation period. |
| OAC rule 3745-17-08(B) | The permittee shall utilize reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See Sections A.2.b and A.2.d through A.2.g). Also, see Section A.2.h. |
| Paved roadways and parking areas | |
| OAC rule 3745-31-05(C) Voluntary Restriction to Avoid BAT | See Section A.2.a. |

| Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|-------------------------------|---|
| OAC rule 3745-17-07(B)(4) | No visible particulate emissions from any paved roadway or parking area except for a period of time not to exceed six minutes during any sixty minute observation period. |
| OAC rule 3745-17-08(B) | The permittee shall utilize reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See Sections A.2.c through A.2.g). Also, see Section A.2.h. |

2. Additional Terms and Conditions

- 2.a** Permit to Install XX-XXXXX for this air contaminant source takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
- i. Treating the unpaved and paved roadways and parking areas with water at sufficient treatment frequencies to ensure controlled potential particulate emissions do not exceed 9.9 TPY.
 - ii. Limiting vehicle miles traveled per year to 25,000 for paved roadways and parking areas and 25,000 for unpaved roadways and parking areas.
- 2.b** The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c** The 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 sweeping, speed management, good housekeeping and treating the paved roadways and parking areas with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.d** 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.
- 2.e** 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 with the control measure(s) specified above 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 the visible emission limitation for paved roadways and parking areas.
- 2.f** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- 2.g** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- 2.h** The roadways and parking areas are associated with a portable source and are applicable to the requirements of OAC rule 3745-17-07 (B) and 3745-17-08 (B) when located in an "Appendix A" area as identified in OAC rule 3745-17-08.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform daily inspections of all roadways and parking areas.
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.
3. The permittee may, upon receipt of written approval from the appropriate field office (having jurisdiction over the new site), modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control 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 4.d. 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.

D. Reporting Requirements

1. The permittee shall submit deviation reports, in accordance with the reporting requirements of the General Terms and Conditions of this permit, 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.

E. Testing Requirements

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

a. Emission Limitation:

There shall be no visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed thirteen minutes during any sixty minute observation period.

Applicable Compliance Method:

If required, compliance with the visible emission limitation specified 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.

b. Emission Limitation

There shall be no visible particulate emissions from any paved

roadway or parking area except for a period of time not to exceed six minutes during any sixty minute observation period.

Applicable Compliance Method:

If required, compliance with the visible emission limitation specified 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.

c. Emission Limitation:

Particulate emissions shall not exceed 9.9 TPY.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual particulate emission limitation above using emission factors from AP-42 "Compilation of Air Pollutant Emission Factors," Chapter 13.2, (12/03), and an assumed control efficiency from Ohio EPA's Reasonably Available Control Measures (RACM) document (September, 1980) for watering of 80% for paved roadways and parking areas and 50 % for unpaved roadways and parking areas.

F. Miscellaneous Requirements

None