



Date Prepared/Revised
DEP USE ONLY
Date Received

FORM G (A) AIR RESOURCES PROTECTION DUST EMISSIONS ESTIMATE AND CONTROL PLAN

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form G(A), reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Pa Code 121.7, 123.1(c), 123.2, 131.2, 131.3, 273.217, 277.217, 279.218, 281.217, 288.217, 289.227, 293.218, 295.217, 297.218

CHECK TYPE OF FACILITY and whether NEW or EXISTING / EXPANSION Facility

Municipal () / Residual () Waste Landfill

Construction/Demolition Waste Landfill..... If existing: Permit # _____

Composting Facility

Demonstration Facility Proposed Waste through put in tons/day _____

Incinerator or Resource Recovery Facility Proposed operating schedule:

Oil and Gas Wastewater Storage Impoundment..... Proposed operating schedule:

Other Municipal () / Residual () Waste Processing Facility _____ days/yr Mon.-Fri.: _____ to _____ (OD)

Facility (Describe) _____ Sat.-Sun.: _____ to _____

Total: _____ (hr./yr.) (OH)

INSTRUCTIONS/APPLICABILITY: The purpose of this form is to obtain information necessary to determine whether the proposed facility will be operated in such a manner as to prevent particulate matter emitted from the facility from causing air pollution or causing an exceedance of ambient standards and to determine if dust prevention measures comply with applicable operational standards.

I. Unpaved/Paved Road Particulate Emissions Potential

Vehicle Type	Vehicle Wt. Unloaded (ton)	Vehicle Wt. Loaded (ton)	No. of Wheels	Unpaved (lb./VMT)		Paved (lb./VMT)	
				E _{in}	E _{out}	E _{in}	E _{out}
Transfer							
Trailer							
High Capacity							
Front Loader							
Light Weight							
Rear Loader							
Dump Trucks							
In Plant Trucks							



$$\text{Unpaved Road : } E_{in/out} = 5.9K \left(\frac{s}{12} \right) \left(\frac{S_{in/out}}{30} \right) \left(\frac{W_{in/out}}{3} \right)^{0.7} \left(\frac{w}{4} \right)^{0.5} \left(\frac{365 - P}{365} \right) \text{ lb./VMT}$$

$$\text{Paved Road : } E_{in/out} = .077I \left(\frac{4}{n} \right) \left(\frac{s}{10} \right) \left(\frac{L}{1000} \right) \left(\frac{W_{in/out}}{3} \right)^{0.7} \text{ lb./VMT}$$

Where:

E_{in} = Emission factor loaded trucks in (lb./VMT)

E_{out} = Emission factor unloaded trucks out (lb./VMT)

K = Particle size multiplier - 1 (total); 0.8 (TSP); 0.36 (PM-10)

VMT = Vehicle mile traveled

Surface Material:

s = Mean silt content

Gravel = 5%

Limestone = 10%

Dirt = 28%

Other = _____% (Explain) _____

S_{in} = Mean vehicle speed in (____ MPH); S_{out} = Mean vehicle speed out (____ MPH)

W = Number of wheels

W_{in} = Vehicle weight loaded (tons); W_{out} = vehicle weight unloaded (tons)

P = Number of days/yr with at least .01 inches of precipitation per day = ____ days

n = number of paved traffic lanes

I = Industrial augmentation factor = $\left[\begin{array}{l} 7.0 \text{ (paved to unpaved)} \\ 3.5 \text{ (unpaved shoulders)} \\ \text{Other (explain) } \end{array} \right]$

L = Surface dust loading (lb./mile) = 53 lb./mile

UPR = Total length of unpaved roads ____ ft. or ____ miles

PR = Total length of paved roads ____ ft. or ____ miles

II. Construction/Operation Particulate Emissions Potential

Note: General emission factors are given in the following calculations. Should site specific factors be used, please provide reference.

A. Total potential dust emissions from topsoil removal/daily cover:
 6×10^{-5} (tons of dust emissions/tons of topsoil removed or covered) X
 [(tons topsoil removed/yr)_{avg.} + (tons topsoil daily cover/yr)_{avg.}]
 _____ = _____ t/yr

B. Total potential dust emissions from dozers onsite:
 1.6×10^{-2} (tons of dust emissions/dozer hr) X [(#dozers)_{avg.} X
 (hr/day dozer opr)_{avg.} X OD]
 _____ = _____ t/yr

C. Overburden drilling potential dust emissions:
 7.5×10^{-4} (tons of dust emissions/hole drilled) X (holes drilled/yr)_{avg.}
 _____ = _____ t/yr

D. Blasting potential dust emissions:
 6×10^{-4} (tons of dust emissions/tons of overburden removed) X
 (tons/yr of overburden removed)_{avg.}
 _____ = _____ t/yr

E. Overburden removal potential dust emissions:
 1.85×10^{-5} (tons of dust emissions/tons of overburden removed) X
 (tons/yr of overburden removed)_{avg.}
 _____ = _____ t/yr

F. Overburden truck dumping potential dust emissions:
 4.0×10^{-6} (tons of dust emissions/tons of overburden dumped) X
 (tons/yr of overburden dumped)_{avg.}
 _____ = _____ t/yr

G. Road maintenance potential dust emissions:
 1.6×10^{-2} (tons of dust emissions/dozer hour opr.) X [(hr/day road maintenance)_{avg.} X OD]
 _____ = _____ t/yr

H. Total: _____ t/yr
 (H)

III. Summary of Potential/Actual Total Dust, & PM-10 Emissions

Total potential dust emissions = T + H = _____ t/yr
(M)

Total potential PM-10 emissions = 0.36 X M = _____ t/yr
(N)

Total actual dust emissions = 0.5 X M = _____ t/yr
(O)

Total actual PM-10 dust emissions = 0.5 X N = _____ t/yr
(P)

IV. Stationary Sources Standards

1. Will the proposed solid waste facility dust emissions be visible off the permit boundary?
 Yes No

2. Are any stationary sources of air contamination other than landfill gas emissions [see Form G (B)] subject to the new source performance standards of 25 PA Code Chapter 122 planned for this proposed facility?
 Yes No

Describe source(s) _____

If "yes", what is the air quality application # _____

3. Will the proposed facility accept asbestos waste subject to national standard for hazardous air pollutants adopted under 25 PA. Code Chapter 124?
 Yes No
If yes, describe compliance with Chapter 124.

4. Is the proposed facility subject to any other national standard for hazardous air pollutants?
 Yes No

Identify pollutant(s) _____

V. Entrance Roads, Access Roads, and Parking Areas

Describe plans for monitoring, maintaining and cleaning all entrance roads, access roads, and parking areas. This plan must effectively control the dust and particulate emissions calculated in Parts I-III above. The use of waste oil for dust suppression is prohibited.

- a. For each paved parking lot/area, paved facility haul road, the required paved access roadways from public highway to the facility, and public highways, describe the method and frequency of road cleaning and/or maintenance.

- b. For the shoulders of: paved parking lot/areas; paved facility haul roads; the required paved access roadways from public highways to the facility; and public highways, describe the extent of application and frequency of water or other chemical dust suppressants to reduce fugitive dusts. Application of dust suppressants or water on public highway shoulders must be completed for a distance of 500 feet in both directions from the facility. Identify any road maintenance agreements with the local municipality or PennDOT.

- c. For unpaved parking lot areas, and unpaved access roads near unloading areas, describe the application and frequency of use of water or other chemical dust suppressants to reduce fugitive dust emissions.

- d. Describe how vehicles which transport waste or earth into the facility, will be cleaned before exiting the site.

- e. State the roadway speed limit for the proposed facility, and include the locations and size specifications of speed limit signs.

- f. Will all trucks entering and leaving the facility be covered? Yes No

If no, explain why a cover is not needed to prevent fugitive dust emissions from becoming airborne.

VI. Records Keeping

Describe the records to be kept at the site to insure that the plan discussed in Item IV (2) above is being implemented. These records must include, at a minimum, the following:

- a. for paved roads and parking areas:
 - i. daily log of time and location of any vacuum sweeping conducted,
 - ii. log explaining the reasons any required vacuum sweeping was not performed.
- b. for unpaved roads and shoulders of paved roads:
 - i. daily log of time and location of treated areas,
 - ii. identification of dust suppressants,
 - iii. daily log of the dilution ratios of the dust suppressants and diluent used if chemical suppressants are used, and
 - iv. purchase records of the chemical suppressants, if used.
- c. Quarterly reports of the above records must be submitted to this Department upon request.