OhioEPA

State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: FINAL PERMIT TO INSTALL
FRANKLIN COUNTY
Application No: 01-08509

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 4/11/2002

Martin Marietta Aggregates Marble Cliff
Patrick Montgomery
399 Frank Rd
Columbus, OH 43209

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA **CDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 4/11/2002**
Terms and Conditions	**Effective Date: 4/11/2002**

FINAL PERMIT TO INSTALL 01-08509

Application Number:	01-08509
APS Premise Number:	0125040476
Permit Fee:	**$1200**
Name of Facility:	Martin Marietta Aggregates Marble Cliff
Person to Contact:	Patrick Montgomery
Address:	399 Frank Rd Columbus, OH 43209

Location of proposed air contaminant source(s) [emissions unit(s)]:
2650 Old Dublin Rd
Hilliard, **Ohio**

Description of proposed emissions unit(s):
Overburn removal operations.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may

be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit to Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and

conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
Particulate emissions	31.16

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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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F006 - Mineral extraction: overburden removal, drilling, blasting, and loading	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 10.85 tons/yr Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.
	OAC rule 3745-17-07 (B)	Visible particulate emissions from any this fugitive dust source shall not exceed twenty per cent opacity as a three- minute average.
	OAC rule 3745-17-08 (B)	No person shall cause or permit any fugitive dust source to be operated; or any materials to be handled, transported, or stored; or a building or its appurtenances or a road to be used, constructed, altered, repaired, or demolished without taking or installing reasonably available control measures to prevent fugitive dust from becoming airborne.

2. Additional Terms and Conditions

2.a The annual emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limits.

2.b The mineral extraction operations covered by this permit and subject to the above-mentioned requirements are listed below:

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Overburden removal, drilling, blasting and loading

2.c The permittee shall employ best available control measures for the above-identified mineral extraction operation for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee shall perform the following control measure(s) to ensure compliance:

mineral extraction operation(s)	control measure(s)
Overburden removal	Precautionary operating practices
Drilling	Reasonably available control measures such as watering, or enclosure, or other forms of particulate control.
Loading	Prevent haul vehicle overloading
Blasting	Prevent overshooting during blasting
Reclamation	Practice as expeditiously as possible

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

2.d For each mineral extraction operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the mineral extraction operation(s) until further observation confirms that use of the control measure(s) is unnecessary.

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

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

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

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mineral extraction operation(s)	Minimum inspection frequency
Overburden removal, drilling, blasting and loading	Each day mineral extraction operations are employed.

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

3. The permittee may, upon receipt of written approval from the Ohio EPA, Central District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspection would be sufficient to ensure compliance with the above-mentioned applicable requirements.

4. The permittee shall maintain records of the following information:

   a. the date and reason any required inspection was not performed;

   b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s):

   c. the dates the control measure(s) was (were) implemented; and,

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

   The information in 4.d shall be kept separately for each mineral extraction operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:

   a. each day during which an inspection was not performed by the required frequency; and,

   b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

   The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emission limitation specified in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

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a. Emission Limitation:

Visible particulate emissions from any this fugitive dust source shall not exceed twenty per cent opacity as a three- minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

Particulate emissions shall not exceed 10.85 tons/yr from mineral extraction processes.

Applicable Compliance Method:

Compliance with the emission limit can be demonstrated through a one time calculation using the maximum throughputs and emission factors found in AP-42.

Drilling operations, emission factor from AP-42 11.9-4, dated July, 1998:

Emission factor (TSP):	1.3 lb. TSP per holes drilled
Holes drilled per year (Max):	5,000 holes per year

Maximum emissions (TSP): (1.3 lb/hole)(5,000 holes/yr)/2000 = 3.25 ton/yr

Blasting operations, the best available emission factor determination was developed from the equation from AP-42, 11.9-1, dated July, 1998 for blasting operations:

Typical blasting area:	31,500 square feet
Number of blasts annually:	144 blasts per year

$E = 0.000014*A^{1.5}$ (lb TSP/blast)
A = Horizontal area in square feet at a depth of equal to or less than 70 feet.
$E = 0.000014(31{,}500\text{sq ft})^{1.5} = 78.27$ lbs TSP/blast
Maximum Emissions (TSP)

TSP = (78.27 lb/blast)(144 blast/yr) / 2000 = 5.64 ton TSP/yr

Material handling, emission factor calculated from the equation from AP-42 13.2.4, dated January, 1995:

Material moisture content (M):	1.0%
Mean wind speed (U):	1.5mph

Particle size multiplier (k): 0.74 (TSP=PM30)

Emission factor (EF): $(0.74)(0.0032)[(1.5/5)^{1.3}/(1.0/2)^{1.4}] = 0.0013$ lb/ton

Above ground material handling:
Maximum emissions (TSP): (0.0013 lb/ton)(1,500,000 ton/yr)/2000 = 0.98 ton/yr

Underground material handling:
Maximum Emissions (TSP): (0.0013 lb/ton)(1,500,000 ton/yr)/2000 = 0.98 ton/yr

Total mineral extraction particulate emissions:
Maximum Emissions (TSP): 3.25 TPY + 5.64 TPY + (2) 0.98 TPY = 10.85 TPY

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F007 All plant roadways and parking areas. (see section A.2.a).	OAC rule 3745-31-05(A)(3)	Total Particulate Emissions from paved and unpaved roadways and parking areas shall not exceed 20.31 tons per year.
Paved roadways and parking areas.		Particulate Emissions from paved roads shall not exceed 16.9 tons per year. There shall be no visible particulate emissions from any paved roadway or parking area, except for a period of one minute during any 60 minute observation period. Best available technology (BAT) that is sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.c., A.2.d, and A.2.g through A.2.j.)
	OAC rule 3745-17-07 (B)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B), (B)(2)	The emission limitation specified by this rule is equivalent to or less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Unpaved roadways and parking areas	OAC rule 3745-31-05(A)(3)	Particulate emissions from unpaved roads shall not exceed and 3.41 tons per year. There shall be no visible particulate emissions from any unpaved roadway or parking area, except for a period of time not to exceed three minutes during any sixty-minute observation. Best available technology that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.e through A.2.j)
	OAC rule 3745-17-07 (B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B), (B)(2)	The emission limitation specified by this rule is equivalent to or less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a 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 and exit roadways
Secondary haul loop

Paved parking area:
Office parking

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

Unpaved roadways:
Primary haul roads
Secondary haul roads (except for the paved entrance/exit roadways and pave haul loop)

Unpaved parking areas:
None

2.c The permittee shall employ best available technology on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee shall treat the paved roadways and parking areas by applying water and wet sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing equally or more effective control measures to ensure compliance.

2.d The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets and roadways onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.

2.e The permittee shall employ best available technology on the unpaved roadways and loading areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee shall treat the unpaved roadways and parking areas by monthly application of chemical stabilizers and application of water, as needed, to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.f 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.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.

2.h 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. Signs mandating the covering of all on-road, open-bodied vehicles shall be placed in conspicuous areas for drivers of such vehicles.

2.i Implementation of the above-mentioned control measures, in accordance with the terms and conditions of this permit, is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

2.j The use of used oil as a dust suppressant is prohibited per OAC rule 3745-279-82.

B. Operational Restrictions

1. A maximum speed limit of 15 miles per hour for vehicular traffic shall be posted and enforced on the roadways(except Quarry roads) and parking areas of this facility.

2. The permittee shall apply chemical dust suppressants to unpaved roadways whenever needed during freezing conditions when the application of water is not practical or safe. Implementation of this control measure may be suspended when sufficient moisture content exists such that emissions limitations are in compliance with those established in Part II. A.1.

3. The permittee shall water plant roadways whenever needed, unless it is below freezing or unless precipitation precludes the need for watering. Paved roadways shall be swept weekly, or as needed.

C. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

Paved roadways and parking areas	Minimum inspection frequency
Entrance and Exit Roadways	Daily, except when facility is closed
Office Parking	Daily, except when facility is closed
Haul and Secondary Loop Roadways	Daily, except when facility is closed
Unpaved roadways and parking areas	Daily, except when facility is closed
Plant and Quarry Roadways	Daily, except when facility is closed

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.

2. The permittee may, upon receipt of written approval from the Ohio EPA Central District Office, 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.

3. 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 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.

   The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:

   Total particulate emissions from paved roadways shall not exceed 16.9 tons/yr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the vehicle travel miles per year times a calculated AP-42 emission factor (Chapter 13.2.1, 10/97) and a control efficiencies for water flushing or sweeping operations from RACM.

$E = k(sL/2)^{0.65} (W/3)^{1.5}$

where:

E = particulate emission factor
k = base emission factor for particle size range, 0.082 lb/VMT
sL = road surface silt loading, 4.8 grains/sq.ft.
W = average vehicle weight, 20.3 tons
VMT= vehicle miles traveled

VMT paved = [(2,000,000 tons/yr) / (20.3 tons/truck)] x (2.24 miles) = 220,690 mi.

$E_{TSP} = (0.082 \text{ lbs/VMT}) (4.8 / 2)^{0.65} (20.3/3)^{1.5}$

E_{TSP}= 2.55 lbs/VMT

Total Particulate Emissions (TSP)= (220,690 VMT)(2.55 lb/VMT)/2000 = 281.38 tons/yr
Sweeping Application (70%) = 281.38 x 0.3 = 84.4 tons/yr
Water Application (80)% = 84.4 tons/yr x 0.2 = 16.88 tons/yr

b. Emission limitation:

There shall be no visible emissions except for a period not to exceed one minute during any 60 minute observation period from paved roadways.

Applicable Compliance Method:

Compliance with the emission limitation for the paved roadways and parking areas 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)(d) of OAC rule 3745-17-03

c. Emission Limitation:

Particulate emissions from unpaved roadways shall not exceed 3.41 tons/yr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the vehicle travel miles per year times a calculated AP-42 emission factor (Chapter 13.2.2, 1/95) and a control efficiency for dust suppression from RACM

$E = \{ [k(s/12)^a (W/3)^b] / (M_{dry} / 0.2)^c\} \{(365 - p) / 365\}$

where:

E = annual size-specific emission factor, lb/VMT
k = base emission factor for particle size range, 10 lb/VMT
s = surface material silt content %, 4.8 %.
W = average vehicle weight, 20.3 tons
M_{dry} = surface material moisture content under dry uncontrolled conditions, 5%
Constants for equation for TSP: a = 0.8; b = 0.5; and c = 0.4
Constants for equation for PM10: a = 0.8; b = 0.4; and c = 0.3
VMT= vehicle miles traveled
p = number of days with at least 0.01 inch of precipitation per year, 136 days

VMT unpaved = [(2,000,000 tons/yr) / (20.3 tons/truck)] x (1.6 miles) = 157,636 mi.

$E_{TSP} = \{[(10 \text{ lbs/VMT}) (4.8/12)^{0.8} (20.3/3)^{0.5}] / (5/0.2)^{0.4}\} \{(365-136)/365\}$

E_{TSP} = 2.16 lbs/VMT

Total Particulate Emissions (TSP) = (157,636 VMT)(2.16 lb/VMT)/2000 = 170.25 tons/yr
Chemical Application (90%) = 170.25 tons/yr x 0.1= 17.03 tons/yr
Water Application (80)% = 17.03 tons/yr x 0.2 = 3.41 tons/yr

d. Emission limitation:

There shall be no visible emissions except for a period of time not to exceed three minutes during any sixty-minute observation period from unpaved roadways.

Applicable Compliance Method:

Compliance with the emission limitation for the unpaved roadways and parking areas 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)(d) of OAC rule 3745-17-03.

F. Miscellaneous Requirements

None