



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: 01-08133**

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
Subpart 000	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 7/6/00

Martin Marietta Materials Inc
Patricia Bradley
780 North Valley Rd
Xenia, OH 45385

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, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA

CDO



FINAL PERMIT TO INSTALL 01-08133

Application Number: 01-08133
APS Premise Number: 0125001402
Permit Fee: **\$4400**
Name of Facility: Martin Marietta Materials Inc
Person to Contact: Patricia Bradley
Address: 780 North Valley Rd
Xenia, OH 45385

Location of proposed air contaminant source(s) [emissions unit(s)]:
**385 Frank Rd
Columbus, Ohio**

Description of proposed emissions unit(s):
Crushing operations primary and secondary.

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 are inadequate 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 prove to be inadequate 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**

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	52.2

OAC rule 3745-17-08 (B)

average, from fugitive dust sources. See A.2.c., below.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See A.2.d. below.

2. Additional Terms and Conditions

- 2.a.** The hourly emission limitation of 8.2 lb/hr was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.b.** The following transfer points, screens and crushers are subject to 40 CFR Part 60, Subpart 000:
- i. Transfer Points after wet screen: 36" x 198' conveyor CV-1; 36" x 150' stacker CV-2; 30" conveyor CV-3; 30" x 83' stacker CV-4; 30 x 125' stacker CV-5; 30" x 283' conveyor CV-8; 30" x 83' stacker CV-7; 30" x 125' stacker CV-13, 30' x 125' CV-14; 24" conveyor CV-16; 30" conveyor CV-17 CV-17.
 - ii. Transfer Points prior to wet screens or after crusher: 30" x 80' field conveyor F-14; 30" x 1300' field conveyor F-13; 30" x 83' stacking conveyor F-12; 48" belt feeder F-6; 36" x 200' conveyor F-5; 36" x 750' bridge conveyor F-4; 30" x 705' conveyor F-3; 30" x 598' conveyor F-2; 36" x 120' stacker F-1; 30" x 283' conveyor CV-8; 36" x 20' conveyor CV-9; 30 x 50' stacking conveyor CV-10; 42" conveyor CV-11; 30' x 83' stacker CV-12.
 - iii. Screens: AC 8' x 24' three deck primary wash screen and two El-Jay 6' x 16' three deck secondary wash screens; and
 - iv. Crushers: VSI ISC crusher
- 2.c.** The following transfer points and crushers are subject to opacity limits equivalent to 3745-17-07(B)(1):
- i. Transfer Points: 5' x 14' Deister feeder; 54" synatron feeder; and
 - ii. Crushers: Cedar Rapids 22 x 36 jaw crusher.
- 2.d.** Compliance with OAC rule 3745-31-05 shall be demonstrated by the use of water sprays on the wet screens , maintaining the material in a moist condition during transfer and

conveying, and compliance with the opacity limitations and the annual production restriction.

- 2.e.** This PTI represents a modification to PTI # 08-4032, as issued on 7/21/99, with maximum production rates of 600 ton per hour and 850,000 ton per year. This permit increases the production rates to 850 ton per hour and 2,000,000 ton per year. The modification results in an increase in the annual allowable from 1.03 ton PM/yr to 9.7 ton PM/yr, by including emissions from two crushers and three screens.
- 2.f.** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR, Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR, Part 60 are also federally enforceable.

B. Operational Restrictions

- 1. The maximum annual production rate for this facility shall not exceed 2,000,000 ton.
- 2. Water sprays shall be operated at points necessary to ensure compliance with the visible emission limitations specified in terms A.2.b, A.2.c, A.2.d and A.2.e for crushing, transfer points, screening, and conveying operations.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall maintain monthly records of the amount of total aggregate produced in tons, in emissions unit F001.

D. Reporting Requirements

- 1. The permittee shall submit annual reports that identify any exceedances of the annual production rate limitation for emissions unit F001, as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred, then the permittee shall state so in the report. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

- 1. Within 60 days of reaching maximum production, this facility shall conduct, or have conducted, an opacity test for F001 in order to demonstrate compliance with the specified allowable opacity limitation. The opacity test shall be conducted in accordance with the test method specified in 40 CFR Part 60 Subpart OOO, [reference section 60.675].

Not later than 30 days prior to the proposed test date(s), this facility shall submit an Intent to Test notification to the Ohio EPA Central District Office (CDO). The Intent to Test notification shall describe in detail the proposed test methods and procedures, the source operating parameters, the

time(s) and the date(s) of the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in Ohio EPA CDO refusal to accept the results of the opacity test(s).

Personnel from Ohio EPA CDO shall be permitted to witness the test(s). Personnel from this facility shall acquire data and information regarding the source operating parameters (including but not limited to, water flow rates and pressure employed for particulate emission and opacity control at this plant). Data reduction of opacity readings (to determine compliance with opacity limitations) shall be based upon 6-minute averages, and if applicable, 3-minute averages.

A comprehensive written report on the results of the opacity test(s) (including opacity levels and the source operating parameters) shall be submitted to Ohio EPA CDO within 30 days following completion of the test(s).

2. Compliance with the emission limitations in this permit for emissions unit F001 shall be determined in accordance with the following method(s):

a. Emission Limitation-

Particulate emissions shall not exceed 8.2 lb/hr from the aggregate processing line

Applicable Compliance Method-

Compliance shall be determined by summing the calculated hourly emission rate for each crusher, screen, and conveyor as determined by multiplying the maximum hourly production rate of 700 ton/hr by emission factors specified in USEPA reference document AP-42, Table 11.19.2-2 (1/95):

primary crusher - $850 \text{ ton/hr} * 0.0007 \text{ lb PM/ton} = 0.595 \text{ lb/hr}$

tertiary crusher - $850 \text{ ton/hr} * 0.001239 \text{ lb PM/ton} = 1.053 \text{ lb/hr}$

3 screens - $3 * 850 \text{ ton/hr} * 0.001764 \text{ lb PM/ton} = 4.498 \text{ lb/hr}$

24 transfer points - $24 * 850 \text{ ton/hr} * 0.0001 \text{ lb PM/ton} = 2.04 \text{ lb/hr}$

b. Emission Limitation-

Particulate emissions shall not exceed 9.6 ton/yr from the aggregate processing line

Applicable Compliance Method-

Compliance shall be determined by record keeping specified in section C.1 using emission factors specified in USEPA reference document AP-42, Table 11.19.2-2 (1/95) and summing the calculated emission rate for each crusher, screen, and conveyor as determined by multiplying the annual production rate and dividing by 2,000 pounds per ton:

primary crusher - $2 * 10^6 \text{ ton/yr} * 0.0007 \text{ lb PM/ton} * 1 \text{ ton}/2,000 \text{ lb} = 0.7 \text{ ton/yr}$

tertiary crusher - $2 * 10^6 \text{ ton/yr} * 0.001239 \text{ lb PM/ton} * 1 \text{ ton}/2,000 \text{ lb} = 1.24 \text{ ton/yr}$

3 screens - $3 * 2 * 10^6 \text{ ton/yr} * 0.001764 \text{ lb PM/ton} * 1 \text{ ton}/2,000 \text{ lb} = 5.29 \text{ ton/yr}$

24 transfer points - $24 * 2 * 10^6 \text{ ton/yr} * 0.0001 \text{ lb PM/ton} * 1 \text{ ton}/2,000 \text{ lb} = 2.4 \text{ ton/yr}$

c. Emission Limitation-

Opacity shall not exceed 10%, as a 6-minute average, from transfer points and screens as identified in A.2b.ii., above.

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Martin Marietta Materials Inc

PTI Application: 01-08133

Issued: 7/6/00

Facility ID: 0125001402

Emissions Unit ID: F001

Applicable Compliance Method-

Compliance shall be determined by visible emission evaluations performed using the methods and procedures specified in USEPA Reference Method 9 and 40 CFR 60.675 Subpart OOO.

d. Emission Limitation-

Opacity shall not exceed 15%, as a 6-minute average, from crushers as identified in A.2.b.iv., above.

Applicable Compliance Method-

Compliance shall be determined by visible emission evaluations performed using the methods and procedures specified in USEPA Reference Method 9 and 40 CFR 60.675 Subpart OOO.

e. Emission Limitation-

Opacity shall not exceed 20%, as a 3-minute average, from transfer points.

Applicable Compliance Method-

Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(3) using the methods and procedures specified in USEPA Reference Method 9.

f. Emission Limitation-

There shall be no visible emissions from wet screening operations and belt conveyors, as identified in A.2.b.i., above, that process saturated materials in the production line up to the next crusher or storage pile.

Applicable Compliance Method-

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified in USEPA Reference Method 22.

F. Miscellaneous Requirements

1. None

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 -Paved roadways and parking areas (see Section A.2.a)	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed and 5.9 ton per year. There shall be no visible particulate emissions except for a period of one minute during any 60 minute observation period from a paved roadway. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.c, and A.2.e through A.2.i)
	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.
	OAC rule 3745-17-08(B), (B)(8), (B)(9)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.
Unpaved roadways and parking areas (see Section A.2.b)	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed and 22.9 ton per year. There shall be no visible particulate emissions except for a period of three minutes during any 60 minute

OAC rule 3745-17-07(B)(5)

OAC rule 3745-17-08(B), (B)(2)

observation period from an unpaved roadway.

Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.c, and A.2.e through A.2.i)

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.

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
- Asphalt Plant Roadways

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:

- Plant Roadways

unpaved parking areas:

- Scale house and Shop

2.c. The permittee shall employ best 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 applying water and/or wet sweeping 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 permittee shall employ best available control measures on the unpaved roadways and loading 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 by monthly application of chemical stabilizers and daily application of water to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e.** 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.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 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.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.
- 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 3745-17-08.
- 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 and parking areas of this facility.
2. The permittee shall apply chemical dust suppressants to unpaved roadways at a minimum of once per month, or as needed..
3. The permittee shall water plant roadways at a minimum of once per day, or as needed, and sweep entrance and exit paved roadways weekly.

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:

<u>Paved roadways and parking areas</u>	<u>Minimum inspection frequency</u>
Entrance and exit roadways	Daily
Asphalt plant access roadways	Daily
<u>Unpaved roadways and parking areas</u>	<u>Minimum inspection frequency</u>
Plant Roadways	Daily
Parking - Scale house and Shop	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 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.
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.

D. Reporting Requirements

- 1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and,
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
- 2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

- 1. 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-
Particulate emissions from paved roadways shall not exceed 5.95 ton/yr.

Applicable Compliance Method-

Compliance shall be determined by multiplying the vehicle travel miles per year times a calculated AP-42 emission factor and a control efficiency for water flushing:

Paved roadways AP-42 emission factor section 13.2.1

$$EF = k(sL/2)^{0.65} (W/3)^{1.5} \text{ lbs/VMT}$$

k = particle size multiplier = 0.082 lb/VMT (PM-30 Table 13.2.1-1 AP-42)

sL = silt loading on road surface = 0.4 gm/m² * 1.43 gr/ft² = 0.6 gr/ft² (Table 13.2.1-2)

W = average vehicle weight (tons) = 32.5 (gravel truck)

$$EF = 0.082(0.6/2)^{0.65} (32.5/3)^{1.5} = 0.082 * 0.45 * 18.5 = 1.3 \text{ lb/VMT}$$

$$1.3 \text{ lb/VMT} * (41,650 \text{ m/yr} + 3,600 \text{ m/yr} + 400 \text{ m/yr}) * 1 \text{ ton}/2,000 \text{ lb} = 29.8 \text{ ton PM/yr}$$

Annual emissions = 29.8 ton PM * (1- 0.8 for water flushing) = 5.95 ton PM/yr

b. Emission Limitation-

Particulate emissions from unpaved roadways shall not exceed 22.9 ton/yr.

Applicable Compliance Method-

Compliance shall be determined by multiplying the vehicle travel miles per year times a calculated AP-42 emission factor and a control efficiency for dust suppression:

Unpaved roadways AP-42 emission factor section 13.2.2

$$E = ((k(s/12)^{0.8} (W/3)^{0.5})/(M/0.2)^{0.4}) \text{ lbs/VMT}$$

k = particle size multiplier = 10 (PM-30 Table 13.2.2-2 AP-42)

s = surface material silt content = 10% (supplied by permittee)

W = average vehicle weight (tons) = 32.5 (gravel truck)

M = surface material moisture content = 5% (assumed based on content as delivered)

$$E = 10(10/12)^{0.65} (32.5/3)^{0.5}/(5/0.2)^{0.4} * (365-120)/365 * (1-0.9) \text{ control efficiency-water}$$

$$E = 10(2.9/3.6) * (0.67) * (0.1) = 0.53 \text{ lb/VMT (controlled emission rate)}$$

Miles traveled = 86, 497 miles (gravel truck)

$$0.53 \text{ lb/VMT} * 86,497 \text{ miles/yr} * 1 \text{ ton}/2,000 \text{ lbs} = 22.9 \text{ ton PM per year}$$

c. 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.

d. Emission limitation-

There shall be no visible emissions except for a period not to exceed three-minutes during any 60 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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F003 - Storage piles w/load in and load out of aggregate and wind-erosion (1,000 tons/hr)	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions shall not exceed 7.7 pound per hour and 21.7 ton per year.</p> <p>There shall be no visible particulate emissions except for a period of time not to exceed one minute during any sixty-minute observation period.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See A.2.a through A.2.e. below</p>
	OAC rule 3745-17-07(B)	The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.
	OAC rule 3745-17-08 (B)	The control requirements established pursuant to OAC rule 3745-31-05 are more stringent than the control requirements established by this rule.

2. Additional Terms and Conditions

- 2.a The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit

application, the permittee has committed to treat the load-in and load-out material(s) with water and/or any other suitable dust suppression chemicals to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance

- 2.b.** 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.
- 2.c.** The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the load-in and load-out material(s) with water and/or any other suitable dust suppression chemicals to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.d.** 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.
- 2.e.** 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 rules 3745-17-08 and 3745-31-05.
- 2.f.** The 3.2 lb/hr emission limitation was established to reflect the potential to emit for F003. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

B. Operational Restrictions

- 1. The maximum annual production rate for this facility shall not exceed 1,500,000 tons.

C. Monitoring and/or Recordkeeping Requirements

- 1. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile on a daily basis.

2. 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.
3. 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.
4. 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.
5. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and,
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in 5.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.

6. The permittee shall maintain monthly records of the total tons of sand and aggregate loaded and unloaded from the storage piles.

D. Reporting Requirements

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

- a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and,
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented..
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Emission Limitation-
Particulate emissions shall not exceed 7.7 pound per hour

Applicable Compliance Method-

Compliance shall be determined by the summing the results of the following equation:

- a. Aggregate load-in and load-out (3,000,000 tons/yr) Emission factor (AP-42, Section 13.2.4)

$$E = k(0.0032)(U/5)^{1.3}/(M/2)^{1.4} \text{ lbs/ton}$$

E = emission factor for sand unloading

k = particle size multiplier = 0.74 for PM

U = mean wind speed (mph) = 10

M = material moisture content = 1.5%

$$E = 0.74(0.0032)(10/5)^{1.3}/(1.5/2)^{1.4} \text{ lbs/ton} = 0.0087 \text{ lbs PM/ton}$$

$$\text{PM Emissions} = 0.0087 \text{ lbs/ton} * 3,000,000 \text{ tons} * 1\text{yr}/5,600 \text{ hrs} = 4.6 \text{ lb PM/hr}$$

- b. Storage piles-wind erosion (40 acres) AP-42 Sixth Edition, Chapter 13.2.4.

$$E = 1.7 (s/1.5) * (365-p)/365 * (f/15) \text{ lb/day/acre}$$

s = silt content = 1.3 % average of processed and unprocessed

p = no. of days w/> 0.01 in rain = 137 days

f = % of time wind exceeds 12 mph = 30% default value

$$E = 1.7 * (1.3/1.5) * (365-p)/365 * (30/15)$$

$$1.7 * 0.87 * 0.62 * 2 = 1.85 \text{ lb/day/acre}$$

$$1.85 \text{ lb/day/acre} * 40 \text{ acres} * 1 \text{ day}/24 \text{ hr} = 3.08 \text{ lb PM/hr}$$

2. Emission Limitation-
Particulate emissions shall not exceed 21.7 ton per year

Applicable Compliance Method-

Compliance shall be determined by totaling the following products:

- a. Maximum sand and gravel unloaded = 3,000,000 ton/year
 $0.0087\text{lb/ton} * 3,000,000 \text{ ton/yr} * 1 \text{ ton}/2,000 \text{ lb} = 13 \text{ ton PM/yr}$
- b. Storage piles-wind erosion (40 acres) AP-42 Sixth Edition, Chapter 13.2.4.

$$E = 1.7 (s/1.5) * (365-p)/365 * (f/15) \text{ lb/day/acre}$$

s = silt content = 1.3 % average of processed and unprocessed

p = no. of days w/> 0.01 in rain = 137 days

f = % of time wind exceeds 12 mph = 30% default value

$$E = 1.7 * (1.3/1.5) * (365-p)/365 * (30/15)$$

$$1.7 * 0.87 * 0.62 * 2 = 1.85 \text{ lb/day/acre}$$

$$1.85 \text{ lb/day/acre} * 40 \text{ acres} * 235 \text{ days} * 1 \text{ ton}/2,000 \text{ lbs} = 8.7 \text{ ton PM/yr}$$

3. Emission limitation

There shall be no visible particulate emissions except for a period of time not to exceed one minute during any sixty-minute observation period

Applicable Compliance Method

Compliance with the visible emission limitations for the storage piles identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

F. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 01-08133

Facility ID: 0125001402

FACILITY NAME Martin Marietta Materials Inc

FACILITY DESCRIPTION 700 ton/hr aggregate processing line CITY/TWP Columbus

SIC CODE 1440 SCC CODE 3-05-020-03 EMISSIONS UNIT ID F001

EMISSIONS UNIT DESCRIPTION Aggregate processing plant with crushers, screens and conveyors (700 ton per hour).

DATE INSTALLED 1990

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			6.8	9.7
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? **Subpart OOO** NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? _____

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES _____ NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 01-08133

Facility ID: 0125001402

FACILITY NAME Martin Marietta Materials Inc

FACILITY DESCRIPTION 700 ton/hr aggregate processing line CITY/TWP Columbus

SIC CODE 1440 SCC CODE 3-05-025-04 EMISSIONS UNIT ID F002

EMISSIONS UNIT DESCRIPTION Plant roadways and parking areas

DATE INSTALLED 1990

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			1.0 lb/hr	4.4 ton/yr
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? _____

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES _____ x _____ NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 01-08133

Facility ID: 0125001402

FACILITY NAME Martin Marietta Materials Inc

FACILITY DESCRIPTION 700 ton/hr aggregate processing line CITY/TWP Columbus

SIC CODE 1440 SCC CODE 3-05-025-07 EMISSIONS UNIT ID F003

EMISSIONS UNIT DESCRIPTION Aggregate and sand storage piles with load-in and load-out (1,000 ton per hour)

DATE INSTALLED 1990

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			3.2 lb/hr	13.9 ton/yr
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? _____ NESHAP? _____ PSD? _____ OFFSET POLICY? _____

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? _____

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? _____ \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES _____ x NO

IDENTIFY THE AIR CONTAMINANTS: _____