

**United Metro Materials, Inc., dba Rinker Materials, Plant 233, Cortaro
Air Quality Permit # 690**

**Technical Support Document
JUNE 2007**

I. General Comments:

A. Company Information

1. United Metro Materials, Inc, dba: Rinker Materials Plant 223, Cortaro
2. 9021 N. Casa Grande Hwy, Tucson, AZ 85653

B. Background

This operating permit is the first PDEQ air quality permit issued to United Metro Materials, Inc., the Permittee, for their non-metallic mineral mining/processing and ready mix concrete operation at 9021 N Casa Grande Highway, Marana, Arizona. The Permittee is operating the business under the following name: Rinker Materials Plant 233, Cortaro.

C. Attainment Classification

This source is located in a region that is in attainment for all criteria pollutants.

II. Source Description

The facility is composed of five main plants:

- Aggregate Base Course (ABC) Plant
- Manufactured Aggregate (MA) Plant
- Wet Aggregate (WA) Plant
- Concrete Batch Plant
- Hot Mix Asphalt (HMA) Plant

A. Process Description

The ABC plant utilizes one screen, one jaw crusher, one vertical shaft impact (VSI) crusher unit, and various conveyors and feeders to produce ABC aggregate. Some ABC is stockpiled and sold, but most is utilized in the WA Plant and MA Plant.

The MA Plant is equipped with one VSI crusher, one screen and several conveyors. MA produced is utilized in the HMA Plant.

The WA Plant is composed of various conveyors, blade mills (wet screws), and a wet screen. The WA Plant produces washed sand and rock. This aggregate is stockpiled for utilization in the Concrete Batch Plant.

At the Concrete Batch Plant, the aggregate from the Wet plant is weighed and mixed with cement, flyash and admixtures to produce a wide variety of Portland Cement Concretes.

B. Air Pollution Control Equipment

Dust collectors (baghouses) control emissions from silos and spray-bars are utilized to control dust elsewhere along the process. Fugitive emissions from haul roads are controlled by application of water using a water truck.

III. Regulatory History

A. Testing & Inspections

This is a new source; no testing or inspections have been conducted to date.

B. Excess Emissions

This is a new source; no excess emissions have been reported to date.

IV. Emissions Estimates

Emission estimates for the facility are derived from the use of AP-42 emission factors and are presented in the potential to emit document. The following table outlines Rinker Materials potential to emit (operating 8760 hr/yr) and actual potential to emit*.

Pollutant	Potential to Emit (Operating 8760 hrs/yr) Tons per Year	Actual Emissions (Limited by Throughput) Tons per Year
Nitrogen Oxides (NOx)	96.40	32.49
Carbon Monoxide (CO)	42.52	11.97
Volatile Organic Compounds (VOC)	76.65	18.35
Particulate Matter (as PM ₁₀)	70.91	18.41
Sulfur Oxides (SOx)	62.39	14.94
Hazardous Air Pollutants (HAPs)	13.74	5.29

* The actual potential to emit detailed in the application is based upon the following operational conditions:

1. ABC, MA and WA plants operating at a maximum throughput of 1,500,000 tons/yr; and
2. HMA and Concrete Batch Plant operating at a maximum throughput of 250,000 tons/yr.

These operational limits are not voluntary enforceable limits in the permit. The source is a true minor source based on 8760 hours per year of operation.

V. Applicable Requirements

Abbreviations: Code of Federal Regulations (CFR)
New Source Performance Standards (NSPS)
Pima County Code (PCC)

40 CFR 60:

40 CFR 60.90 Subpart I - Standards of performance for Hot Mix Asphalt Facilities:

40 CFR 60.674 Subpart OOO - Standards of performance for Nonmetallic Mineral Processing Plants, Monitoring of Operations:
This rule only applies to the ABC and MA Plants

The following NSPS rule could but does not apply for the following reason:

40 CFR 60.60 Subpart F - Standards of performance for Portland Cement Plants:

This rule does not apply because the facility does not manufacture Portland Cement as defined by the rule. The facility has reported to produce Portland Cement Concrete.

(PCC) Title 17, Chapter 17.16:

17.16.010	Local rules and standards; Applicability of more than one standard
17.16.020	Noncompliance with applicable standards
17.16.050	Visibility Limiting Standard
17.16.060	Fugitive Dust Producing Activities
17.16.100	Particulate Materials
17.16.110	Storage Piles
17.16.130	Applicability
17.16.150	Hazardous waste, hazardous waste fuel, used oil, and used oil fuel burning equipment
17.16.370	Standards of Performance for Gravel or Crushed Stone Processing Plants

VI. Permit Contents

A. Applicability:

The Specific Conditions address the following categories of equipment:

- **New Source Performance Standards (NSPS) Affected Facilities:**
[Aggregate Base Course (ABC) Plant, Manufactured Aggregate (MA) Plant and Hot Mix Asphalt (HMA) Plant]
- **Non NSPS Affected Facilities**
[Wet Aggregate Plant and Concrete Batch Plant]
- Facility-Wide Operations

B. Emission Limits & Standards:

NSPS Affected Facilities:

ABC Plant and MA Plant

Particulate Matter Standard	40 CFR 60.672(a)
Opacity Standards	40 CFR 60.672 (b), (d), (c), & (h)
Operations and Maintenance Requirement	40 CFR 60.11 (d), & PCC 17.16.020.A
Circumvention	40 CFR 60.12

HMA Plant

Particulate Matter Standard	40 CFR 60.92 (a) & PCC 17.12.185.A.2
Operational Limitation	40 CFR 60.11 (d) & PCC 17.12.020.A
Fuel Limitation	PCC 17.16.150.B.1 & 17.12.185.A.2
Circumvention	40 CFR 60.12

Non NSPS Affected Facilities:

Wet Aggregate Plant	
Particulate Matter Standard	PCC 17.16.370.A, B.ii & C
Process Weight Determination	PCC 17.16.370.F
Fugitive Emission Standards	PCC 17.16.370.E
Concrete Batch Plant	
Applicable regulations in accordance to general Non NSPS emission limits and standards.	
Facility-wide Non-NSPS Applicable Requirements	
Pollution Control Requirement	PCC 17.12.185.A.2, 17.16.100.A & 17.16.370.D
Fugitive Emission Standards	PCC 17.16.060.A, 17.16.060.A.1, 17.16.060.A.2, 17.16.100.C & 17.16.110.A
Opacity Standard	PCC 17.16.050.B & 17.16.130.B.1
Concealment of Emissions	PCC 17.20.040
Local rules and standards-applicability of more than one standard	PCC 17.16.010.B
Facility Changes	PCC 17.12.245 or 17.12.255, or 17.12.260

Facility Wide Operations:

Visibility Limiting Standard	PCC 17.16.050.A, 17.16.050.D, 17.16.050.D.2 & 17.16.050.D.3
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C. Monitoring Requirements: (PCC 17.12.185.A.3)

NSPS Affected Facilities:

ABC Plant and MA Plant	
Particulate Matter	
Opacity	
HMA Plant:	
Particulate Matter Standard	
Fuel Use	
General HMA Plant Operation	

Non NSPS Affected Facilities:

Wet Aggregate Plant	
Particulate Matter	
Process Weight Determination	
Concrete Batch Plant	
Cement Transfer	

Facility Wide Operations:

Pollution Control	
Baghouse Inspection	
Co-location Various Units	

D. Recordkeeping Requirements: (PCC 17.12.185.A.4)

NSPS Affected Facilities:

Recordkeeping requirements pursuant to Facility-Wide Operations

Non NSPS Affected Facilities:

- Wet Aggregate Plant
 - Calibration and maintenance records of monitoring devices
 - Production Rates PCC 17.16.370.G
- Concrete Batch Plant
 - Applicable regulations in accordance to general Non NSPS recordkeeping requirements
- General Non NSPS Applicable Requirements
 - Fuel Use PCC 17.16.010.C and 17.16.340.I

Facility Wide Operations:

- Pollution Control
- Retention of Records PCC 17.24.020.A

E. Reporting Requirements: (PCC 17.12.185.A.5)

NSPS Affected Facilities:

- ABC Plant, MA Plant and HMA Plant
 - Performance Tests 40 CFR 60.676(f)
 - Notification Requirements 40 CFR 60.7(a) and §60.676(g)

Non NSPS Affected Facilities:

See Additional Permit Requirements

Facility Wide Operations:

See Additional Permit Requirements

F. Testing Requirements: (PCC 17.12.050 & 17.20.010)

NSPS Affected Facilities:

- ABC Plant and MA Plant
 - Initial Performance Testing 40 CFR 60.8(a)
 - Conditions of Performance Testing 40 CFR 60.8(c), 40 CFR 60.8 (d) & 40 CFR 60.8 (f), 40 CFR 60.675(g)
 - Particulate Matter 40 CFR 60.675(b)(1)
 - Opacity 40 CFR 60.675(c)(1)
 - Fugitive Emissions 40 CFR 60.675(c)(3) & 40 CFR 60.675(c)(4)

HMA Plant

- Particulate Matter 40 CFR 60.93(b)

Non NSPS Affected Facilities:

- Particulate Matter EPA Reference Method 5, Appendix A in 40 CFR 60
- Opacity EPA Reference Method 9, Appendix A in 40 CFR 60

Facility Wide Operations:

Opacity

EPA Reference Method 9, Appendix A in
40 CFR 60

Alternative Test Method

Appendix A in 40 CFR 60

G Miscellaneous comments:

1. Administrative Amendments

As Pima County Department of Environmental Quality is a local delegated agency, the following citations referencing the 'Administrator' within 40 CFR 60 Subpart OOO have been revised to read 'Control Officer':

- IV.A.1.a.iv. [40 CFR 60.675 (g)]
- IV.A.1.a [40 CFR 60.8(a)]
- IV.A.1.b.i [40 CFR 60.8(c)]

The following citation referencing the 'Administrator or delegated State or local agency' within 40 CFR 60 Subpart OOO has been revised to read 'Control Officer' for the following reason:

- IV.A.1.b.ii [40 CFR 60.8(d)]

2. Additional Permit Requirements

Compliance With Permit Conditions

PCC 17.12.185.A.7.a & b, 17.12.185.A.5,
17.12.040, 17.12.185.A.9 & 17.12.510

Permit Revision, Reopening, Revocation, and
Reissuance, or Termination for Cause.

PCC 17.12.185.A.7.c

Duty to Provide Information

PCC 17.12.165.G, 17.12.185.A.7.e

Severability Clause

PCC 17.12.185.A.6

VII. IMPACTS TO AMBIENT AIR QUALITY

Not a major source thus no studies are required.

VIII. CONTROL TECHNOLOGY DETERMINATION

No control technologies needed to be determined.

IX. PREVIOUS PERMIT CONDITIONS

None, this is the first PDEQ air permit issued to the source.