Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

09 September 2016

Federally Enforceable District Origin Operating Permit Statement of Basis

Owner/Source: Flynn Brothers Contracting, Inc.

Plant Location: 4620 Robards Lane, Louisville, Kentucky 40213

Date Application Received: 27 February 2006
10 September 2008
29 October 2015

Public Comment Date: 09/09/2016

District Engineer: Elise Venard **Permit No:** O-0415-16-F

Plant ID: 0415 **SIC Code:** 2951 **NAICS**: 324121

Introduction:

This permit will be issued pursuant to District Regulation 2.17- *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO_2), carbon monoxide (CO), 1 hr and 8 hr ozone (O_3), and particulate matter less than 10 microns (PM_{10}); and is a non-attainment area for the 1997 standard for particulate matter less than 2.5 microns ($PM_{2.5}$), unclassifiable for the 2012 standard for particulate matter less than 2.5 microns ($PM_{2.5}$) and partial non-attainment area for sulfur dioxide (SO_2).

Application Type/Permit Activity:
[ ] Initial Issuance
[ ] Permit Revision
  [ ] Administrative
  [ ] Minor
  [ ] Significant
[X] Permit Renewal

Compliance Summary:
[ ] Compliance certification signed
[ ] Source is out of compliance
[ ] Compliance schedule included
[X] Source is operating in compliance

I. Source Information

1. **Product Description:** Flynn Brothers Contracting, Inc. is a hot mix asphalt production facility, consisting of stockpiles of virgin and recycled aggregates, liquid storage tanks, and a drum mix batch HMA plant.

2. **Process Description:** Raw materials are delivered to and stored onsite awaiting production. The raw materials are then pre-processed to assure proper sizing and content for the end product. After pre-processing the aggregate and liquid from the storage tanks are mixed together in the drum mixer to produce hot mix asphalt. The HMA is then temporarily stored when waiting for transit trucks and it is transported to offsite delivery locations.

3. **Site Determination:** There are no other facilities that are contiguous or adjacent to this facility

4. **Emission Unit Summary:**

Emission Unit	Equipment Description
Plant-wide	Plant-wide requirements
U1	Virgin and recycled aggregate stockpiles
U2	Storage tanks for liquid asphaltic cement
U3	Aggregate processing equipment
U4	Hot mix asphalt production and storage equipment

5. **Fugitive Sources:** The fugitive sources identified by the source are uncontrolled portions of the RAP and HMA processing units.

6. **Permit Revisions**:

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	183-01-F	11/5/2001	6/3/2001	Initial	Entire Permit	Initial Permit Issuance
NA	O-0415-16-F	10/11/20xx	09/09/2016	Renewal	Entire Permit	Permit renewal; Incorporation of construction permit C-0415-1000-16-F and Insignificant Activities

7. Construction Permit History:

Permit No.	Issue Date	Description
C-0415-1000-16-F	09/08/2016	Installation of Keestrack model Novum #154 RAP vibrating aggregate sorting "grisly" screen

8. Emission Summary:

Pollutant	District Calculated Actual Emissions (ton/yr) 2014 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	14.57	Yes
NO_x	2.91	No
SO_2	0.38	No
PM_{10}	1.48	Yes
VOC	5.47	Yes
Total HAPs	0.59	No
Single HAP Formaldehyde	0.35	No

9. Applicable Requirements:

[ ] PSD [X] 40 CFR 60 [X] SIP [ ] 40 CFR 63
[ ] NSR [ ] 40 CFR 61 [X] District-Origin [ ] Other

10. Referenced MACT Federal Regulations: The source has no MACT requirements.

11. Referenced non-MACT Federal Regulations: Federal regulations 40 CFR Part 60, Subpart I "Standards of Performance for Hot Mix Asphalt Plants" apply to this asphalt production facility.

II. Regulatory Analysis

1. Acid Rain Requirements: Flynn Brothers Contracting, Inc. is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. Flynn Brothers Contracting, Inc. does not manufacture, sell, or distribute any of the listed chemicals. The source's use of

listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. **Prevention of Accidental Releases 112(r):** Flynn Brothers Contracting, Inc. does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

4. **40 CFR Part 64 Applicability Determination:** Flynn Brothers Contracting, Inc. is not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources*.

5. **Basis of Regulation Applicability**

a. **Plant-wide**

Flynn Brothers Contracting, Inc. is a potential major source for the pollutant PM_{10}, CO, and VOC. Regulation 2.17 – F*ederally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source requested limits of the criteria pollutant PM_{10}, CO, VOC < 100 ton/yr, to be a FEDOOP source. The source is not major for Greenhouse Gases.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.

Flynn Brothers Contracting, Inc. submitted the TAC Environmental Acceptability Demonstration to the District in September 2008. SCREEN3 air dispersion modeling was performed for each emission unit that has non-de Minimis TAC emissions. Compliance with the STAR EA Goals was demonstrated in the revised EA Demonstration submitted in April 2016. The District reviewed the EA Demonstrations submitted by the source. The following table demonstrates that the carcinogen risk and non-carcinogen risk values comply with the STAR EA goals required in Regulation 5.21.

Plant-wide Sum	Plant-wide		All new P/PE	
Industrial Total R_C	**6.34**	< 75	**0.00**	< 38
Non-Ind. Total R_C	**5.46**	< 7.5	**0.00**	< 3.8
Industrial Total R_{NC} (max)	**0.49**	< 3.0		
Non-Ind. Total R_{NC} (max)	**0.42**	< 1.0		

TAC [1, 2]	CAS #	Industrial		Non-Ind.		EA Demo
		R_C	R_{NC}	R_C	R_{NC}	
Benzene	71-43-2	0.02	0.00	0.02	0.00	Meet
Arsenic compounds	7440-38-2	0.16	0.00	0.14	0.00	Meet
Cadmium compounds	7440-43-9	0.22	0.01	0.19	0.01	Meet
Formaldehyde	50-00-0	1.16	0.01	1.00	0.01	Meet
Cobalt	7440-48-4	1.08	0.05	0.93	0.04	Meet
Nickel compound	7440-02-0	1.16	0.32	1.00	0.27	Meet
Copper	7440-50-8	0.00	0.05	0.00	0.05	
Lead compounds	7439-92-1	0.19	0.00	0.17	0.00	Meet
Chromium III	16065-83-1	0.00	0.06	0.00	0.06	Meet
Chromium VI	7440-47-3	1.16	0.01	1.00	0.01	Meet
Cobalt	7440-48-4	1.08	0.05	0.93	0.04	Meet
Manganese	7439-96-5	0.00	0.37	0.00	0.32	Meet
Naphthalene	91-20-3	0.09	0.00	0.08	0.00	Meet
Ethylbenzene	100-41-4	0.02	0.00	0.01	0.00	Meet
Phosphorous	7723-14-0	0.00	0.49	0.00	0.42	Meet

Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an Annual Compliance Report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

1 The organic TACs Benzene, Formaldehyde, Naphthalene are controlled via HMA production limit.

2 The metallic TACs (Arsenic, Cadmium, Nickel, Lead, Cobalt, and Chromium VI) are controlled via fabric filter associated with the HMA unit.

b. **Emission Unit U1 –** Aggregate Stockyard

i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E-1: (6) Limestone aggregate and sand stockpiles, 40'x90'x6'	21600 ft^3	1989	1.14 2.17 7.08	Regulation 1.14 provides for the control of fugitive particulate emissions for any source. Regulation 2.17 applies to any stationary source, or one or more processes or process equipment at a stationary source, for which the owner or operator voluntarily applies for a federally enforceable District origin operating permit. The District shall establish requirements and specific conditions that limit source PTE to below Title V standards. Regulation 7.08 establishes the requirements for PM emissions from new processes that commence construction after September 1, 1976.
E-2: RAP aggregate stockpile, 40'x90'x6'	21600 ft^3	1989		
E-3: Haul roads (paved), 0.06 mile	320 ft	1989		
E-4: Haul roads (unpaved), 0.19 mile	1000 ft	1989		

ii. **Standards/Operating Limits**

1) **PM/PM_{10}**

(a) The emission standard for PM at each emission point with a process throughput greater than 30 tn/hr is determined in accordance with Regulation 7.08, section 3.1.2 as follows:
PM lb/hr limit = 17.31 (process weight tn/hr)$^{0.16}$.

(b) The District has determined that the stockpiles under standard conditions and stated production limits cannot exceed hourly Regulation 7.08 PM lb/hr limits uncontrolled.

(c) Regulation 1.14, section 2.1 establishes work practice standards to prevent particulate matter from becoming airborne beyond the work site.

2) **Opacity**

(a) Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%, for processes that commenced construction after September 1, 1976.

(b) Regulation 1.14, section 2.3 establishes standards for fugitive particulate matter.

3) **Unit Operation**

(a) The District has stipulated a limited HMA production standard of five hundred thousand tons (500,000 tn) during any twelve (12) month consecutive period in order to control criteria pollutant emissions in accordance with Regulation 2.17.

c. **Emission Unit U2** -- Storage Tanks

i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
T-1: Burke vertical storage tank #1, liquid asphaltic cement	30000 gallon	1989	7.12	Regulation 7.12 establishes the requirements for storage tanks with a capacity greater than 250 gallons constructed after April 19, 1972
T-2: Burke vertical storage tank #2, liquid asphaltic cement	30000 gallon	1989		
T-3: Burke horizontal storage tank #3, liquid asphaltic cement	30000 gallon	1989		
T-4: #2 fuel oil tank	1000 gallon	2005		

ii. **Standards/Operating Limits**

1) **VOC**

(a) Regulation 7.12, section 3.3 requires submerged fill if the materials have an as stored vapor pressure of 1.5 psia or greater.

(b) The tanks are not subject 40 CFR 60, Subpart Kb because the vapor pressure is less than the required 1.5 kPa.

d. **Emission Unit U3 –** Aggregate and RAP processing

i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E-5: (6) Limestone aggregate feed bins, continuous feed	500 tph	1989	7.08	Regulation 7.08 establishes the requirements for PM emissions from new processes that commence construction after September 1, 1976.
E-6: (1) RAP feed bin	50 tph	2000		
E-7: (6) Feeder belts (one per V.A. bin) emptying to the collecting conveyor	500 tph	1989		
E-8: (1) Collecting conveyor, 36"	500 tph	1998		
E-9: Simplicity model M-120-B sand and aggregate sorting screen, 16'x6' 2-deck	500 tph	1998		
E-10: Keestrack model Novum #154 RAP vibrating aggregate sorting "grisly" screen	200 tph	2013		
E-11: Hartl model PG-13175-I RAP aggregate crusher	100 tph	2013		

ii. **Standards/Operating Limits**

1) **PM/PM_{10}**

(a) The emission standard for PM at each emission point with a process throughput greater than 30 tn/hr is determined in accordance with Regulation 7.08, section 3.1.2 as follows:
PM lb/hr limit = 17.31 (process weight tn/hr)$^{0.16}$.

(b) The District has determined that the aggregate processing emission points E-5 through E-11 cannot exceed hourly Regulation 7.08 PM lb/hr limits uncontrolled.

2) **Opacity**

(a) Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%, for processes that commenced construction after September 1, 1976.

e. **Emission Unit U4 –** HMA Operation

i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E-12: Standard Havens model E-500-R, drum-style aggregate dryer and HMA mixer, "counter-flow drum mixer", with 126.6 MMBtu/hr burner, natural gas	500 tph	1998	2.17, 5.00, 5.01, 5.14, 5.20, 5.21, 5.22, 5.23, 7.09, 7.11, 40 CFR Part 60 Subpart I	Regulation 2.17 applies to any stationary source, or one or more processes or process equipment at a stationary source, for which the owner or operator voluntarily applies for a federally enforceable District origin operating permit. The District shall establish requirements and specific conditions that limit source PTE to below Title V standards. Regulation 7.08 establishes the requirements for PM emissions from new processes that commence construction after September 1, 1976. Regulation 7.09 establishes the Standard of Performance for New Process Gas Streams for processes that commence construction after April 19, 1972. Regulation 7.11 establishes the Standard of Performance for New Asphalt Paving Operations for processes that commence construction after April 1, 1980. Regulation 40 CFR 60 Subpart I establishes the Standards of Performance Hot Mix Asphalt Facilities for Which Construction, Reconstruction, or Modification Commenced after June 11, 1973.
E-13: Drag-slat HMA conveyor	500 tph	1998	2.17, 7.08	
E-14: HMA product silos	250 tph	1998		
E-15: Loadout station	250 tph	1998		

ii. **Standards/Operating Limits**

1) **PM/PM_{10}**

(a) The emission standard for PM at each emission point with a process throughput greater than 30 tn/hr is determined in accordance with Regulation 7.08, section 3.1.2 as follows:
PM lb/hr limit = 17.31 (process weight tn/hr)$^{0.16}$.

(b) The listed equipment (E-13, E-14, E-15) cannot individually exceed the stated Regulation 7.08 PM lb/hr standard. Emission point E-12, Drum Mixer, needs to be controlled at all times to meet the Regulation 7.08 PM lb/hr standard.

(c) In order for the drum mixer (E-12) to meet the standards in Regulation 7.08, section 3.1.2, the owner or operator shall operate and maintain the associated control device at all times the equipment is in operation, including periods of startup, shutdown, and malfunction.

(d) Regulation 7.11, section 3.1.1 sets the particulate matter standard for performance for asphalt paving operations operating on and after April 1980 and applies to the Drum mixer (E-12).

(e) Federal Regulation 40 CFR 60.92(a)(1)) establishes the particulate matter standard for HMA facilities and applies to the Drum mixer (E-12).

2) **Opacity**

(a) Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%, for processes that commenced construction after September 1, 1976.

(b) Regulation 7.11, section 3.1.2 sets the opacity standard for performance for asphalt paving operations operating on and after April 1980.

(c) Federal Regulation 40 CFR 60.92(a)(2)) establishes the opacity standard for HMA facilities and applies to the Drum mixer (E-12).

3) **VOC**

(a) Regulation 7.11, section 4 sets the cutback asphalts use restrictions for asphalt paving operations operating on and after April 1980.

4) **CO**

(a) Regulation 7.09, section 5.1 sets the carbon monoxide emission standard for processes using gas streams built on or after April 1972.

(b) The CO emissions from the process are created by the combustion of fuel oil or natural gas to generate heat required for removing moisture from aggregate and heating the aggregate for the production of hot mix asphalt. The nominal flame temperature of greater than 2,000 °F exceeds the 1,300 °F temperature requirement of Regulation 7.09, Section 5.1.

5) **SO_2**

(a) Regulation 7.09, section 4 establishes a sulfur dioxide standard of less than 29.63 grains per 100 dscf for processes that commenced construction after September 1, 1976.

(b) The synthetic limit reduces the emissions of criteria pollutant SO_2 to less than forty (40) tons during any twelve (12) consecutive month period for Regulation 7.09 SO_2 emission standard compliance.

6) **TAC**

(i) Regulation 5.21, section 4.2 and section 4.3 sets the environmental acceptability standards for permitted stationary sources.

(ii) To demonstrate compliance with Regulation 5.21, sections 4.2 and 4.3, this unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, use De Minimis as limit. If the controlled PTE for the TAC is greater

than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals and controlled PTE is used as limit.

7) **Unit Operation**

(a) The District has stipulated a limited HMA production standard of five hundred thousand tons (500,000 tn) during any twelve (12) month consecutive period in order to control criteria pollutant emissions in accordance with Regulation 2.17.

iii. **Monitoring and Recordkeeping**

1) **PM/PM_{10}**

(a) Federal Regulation 40 CFR 60.93(b)(1) establishes the monitoring and recordkeeping requirements for HMA facilities.

(b) To demonstrate compliance with the Federal regulation (40 CFR 60 Subpart I), a Method 5 stack test was performed on September 24, 1993(DM#: 73843). The Method 5 test showed that the baghouse was operating within the limit of 0.040 grains/dscf and had an average emission rate of 0.0079 grains PM/dscf (1.19 lb PM/hr). During the test the average baghouse flowrate was 1,032,292 cf/hr. The limiting capacity of the Drum mixer (E-12) is 500 tph, therefore, the emission rate of 1.28 lb/hr / 500 ton/hr, can be expressed as 0.00238 lb/ton of HMA produced.

2) **Opacity**

(a) Federal Regulation 40 CFR 60.93(b)(2) establishes the monitoring and recordkeeping requirements for HMA facilities.

iv. **Testing**

Regulation 2.17, section 5.2, requires stack testing as necessary to assure ongoing compliance with the terms and conditions of the permit. Plant-wide the owner or operator shall retest control device

(C-2) within ten (10) years since the most recent District accepted performance test or within 180 days after the effective date of the permit if no previous test has been performed, unless the District requires a different time schedule. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency

1) **PM/PM_{10}**

(a) The owner or operator shall perform an EPA Reference Method 5 PM performance test on the inlet and outlet of the control device (C-2) or emission point to determine the emission rate and control efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations.

(b) The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of completion of the performance test.

III. Other Requirements

1. Temporary Sources: The source did not request to operate any temporary facilities.

2. Short Term Activities: The source did not report any short term activities.

3. Emissions Trading: N/A

4. Operational Flexibility: The source did not request any operation flexibility.

5. Compliance History:

Incid. #	Date	Regulation Violated	Settlement
00447	6/15/1993	Regulation 1.14 control of fugitive particulate emissions	Agreement with fine
00871	7/13/1994	Regulation 1.09 air pollution - general problem	Agreement with fine
00986	10/25/1994	Regulation 1.14 control of fugitive particulate emissions	Agreement with fine
01098	6/27/1995	Regulation 1.11 control of open burning	Agreement with fine
04506	6/27/2007	Regulation 1.14 control of fugitive particulate emissions	Agreement with fine
04931	8/18/2008	Regulation 1.14 control of fugitive particulate emissions	Agreement with fine
06062	7/22/2011	Regulation 1.14 control of fugitive particulate emissions	Agreement with fine
06070	8/2/2011	Regulation 1.14 control of fugitive particulate emissions	Agreement with fine
06594	12/9/2013	Regulation 2.03, section 1 failure to obtain permit to construct/modify/operate	Agreement with fine
A-7307	1/7/2014	Regulation 2.03	Agreement with fine
A-7312	3/26/2014	Regulation 2.17, section 5 and section 2	Agreement with fine

6. Calculation Methodology or Other Approved Method:

a. PM/PM10

i. The owner or operator shall monthly calculate the PM_{10} emissions from the stockyard and aggregate processing based on aggregate throughput and emission factors stated in the table below unless another method is approved in writing by the District.

Emission Source	Uncontrolled PM_{10}	Controlled PM_{10}	Emission Factor Sources
Aggregate Storage Pile	0.344 lb/ton*	0.172 lb/ton†	AP-42 Chapter 13.2.1 AP-42 Chapter 13.2.2 AP-42 Chapter 13.2.4 EPA-450/3-88-008
Tertiary Crushing	0.0024 lb/ton	0.00054 lb/ton	AP-42 Chapter 11.19.2-2
Screening	0.0087 lb/ton	0.00074 lb/ton	AP-42 Chapter 11.19.2-2
Collecting conveyor	0.0011 lb/ton	0.000046 lb/ton	AP-42 Chapter 11.19.2-2
Aggregate transfer	0.0033 lb/ton	0.0017 lb/ton†	AP-42 Chapter 11.12-2
Sand transfer	0.00099 lb/ton	0.000495	AP-42 Chapter 11.12-2

Emission Source	Uncontrolled PM_{10}	Controlled PM_{10}	Emission Factor Sources
		lb/ton†	

* This emission factor includes loading, unloading, transport, and wind action on a sitting storage pile.

† Controlled emission factor assumes 50% efficiency from Water suppression and carryover.

ii. Using the above Emission Factor calculating the tons per month PM_{10} emissions, for both controlled and uncontrolled conditions, is as follows:

E_{PM10} = (X)(EF lb/ton)(1 ton/2000 lb.)

Where: E_{PM10} = controlled or uncontrolled PM_{10} emissions (tons) during a month

X = the amount of aggregate throughput (tons) processed during a month

iii. The owner or operator shall account for the insignificant activity PM_{10} emissions from aggregate processing when totaling the monthly plant-wide emissions. Since the emissions are minor the owner or operator may use the potential PM_{10} emissions as the monthly emissions. District approved PTE is as follows:

- RAP feed bin (A-2) = 120.45 lb. PM_{10}/month
- Collecting conveyor (A-4) = 401.5 lb. PM_{10}/month
- Aggregate crusher (A-7) = 175.2 lb. PM_{10}/month

iv. The owner or operator shall monthly calculate the PM_{10} emissions from the HMA production based on product throughput and emission factors stated in the Table below unless another method is approved in writing by the District.

Emission Source	Uncontrolled PM_{10}	Controlled PM_{10}	Emission Factor Sources
Drum Mixer/Dryer	6.5 lb/ton	0.023 lb/ton	AP-42 Chapter 11.1-3
Silo filling*	0.000585 lb/ton	0.000585 lb/ton	AP-42 Chapter 11.1-14
Plant load-out	0.000521 lb/ton	0.000521 lb/ton	AP-42 Chapter 11.1-14

* "Silo filling" includes emissions from drag-slat conveyors and storage silos

v. Using the above Emission Factor calculating the tons per month PM_{10} emissions, for both controlled and uncontrolled conditions, is as follows:

E_{PM10} = (X)(EF lb/ton)(1 ton/2000 lb.)

Where: E_{PM10} = controlled or uncontrolled PM_{10} emissions (tons) during a month

X = the amount of HMA (tons) produced during a month

vi. The owner or operator shall account for the insignificant activity PM_{10} emissions from HMA production when totaling the monthly plant-wide emissions. Since the emissions are minor the owner or operator may use the potential PM_{10} emissions as the monthly emissions. District approved PTE is as follows

- Drag-slat conveyor (E-1) = 106.76 lb. PM_{10}/month
- Silos (E-2) = 106.76 lb. PM_{10}/month
- Loadout (E-3) = 95.08 lb. PM_{10}/month

vii. The owner or operator shall calculate the PM emissions from aggregate processing based on aggregate throughput and emission factors stated in the Table below unless another method is approved in writing by the District.

Emission Source	Uncontrolled PM	Controlled PM	Emission Factor Sources
Aggregate Storage Pile*	1.259 lb/ton	0.629 lb/ton	AP-42 Chapter 13.2.1 AP-42 Chapter 13.2.2 AP-42 Chapter 13.2.4 EPA-450/3-88-008
Tertiary Crushing	0.0054 lb/ton	0.0012 lb/ton	AP-42 Chapter 11.19.2-2
Screening	0.025 lb/ton	0.0022 lb/ton	AP-42 Chapter 11.19.2-2
Aggregate transfer	0.0069 lb/ton	0.0035 lb/ton	AP-42 Chapter 11.12-2
Sand transfer	0.0021 lb/ton	0.0011 lb/ton	AP-42 Chapter 11.12-2

viii. Using the above Emission Factor calculating the tons per year PM emissions, for both controlled and uncontrolled conditions, is as follows:

E_{PM} = (X)(EF lb/ton)(1 ton/2000 lb.)

Where: E_{PM} = controlled or uncontrolled PM emissions (tons)

X = the amount of material throughput (tons) processed per year

ix. The owner or operator shall account for the insignificant activity PM emissions from aggregate processing when totaling the annual plant-wide emissions. Since the emissions are minor the owner or operator may use the potential PM emissions as the annual emissions. District approved PTE is as follows:

- RAP feed bin (E-6) = 3022.2 lbs PM/year
- Aggregate crusher (E-11) = 4730.64 lbs PM/year

x. The owner or operator shall calculate the PM emissions from HMA production based on product throughput and the emission factors

stated in the Table below unless another method is approved in writing by the District.

Emission Source	Uncontrolled PM	Controlled PM	Emission Factor Sources
Drum Mixer/Dryer	28 lb/ton	0.033 lb/ton	AP-42 Chapter 11.1-3
Silo filling	0.000585 lb/ton	0.000585 lb/ton	AP-42 Chapter 11.1-14
Plant load-out	0.000521 lb/ton	0.000521 lb/ton	AP-42 Chapter 11.1-14

xi. Using the above Emission Factor calculating the tons per year PM emissions, for both controlled and uncontrolled conditions, is as follows:

E_{PM} = (X)(EF lb/ton)(1 ton/2000 lb.)

Where: E_{PM} = controlled or uncontrolled PM emissions (tons)

X = the amount of HMA (tons) produced during a year

xii. The owner or operator shall account for the insignificant activity PM emissions from HMA production when totaling the yearly plant-wide emissions. Since the emissions are minor the owner or operator may use the potential PM emissions as the monthly emissions. District approved PTE is as follows:

- Loadout (E-15) = 1140.96 lb PM/year

xiii. Subsequent compliance with the stack emissions limit can be demonstrated by calculating PM emissions using an emission factor derived from a valid stack test and the product throughput

E_{PM} = (X)(EF)(BC)(7000 grains/1 lb)(1 month/720 hrs)

Where: E_{PM} = controlled or uncontrolled PM stack emissions (grains/cf)

X = the amount of material HMA (Tons) produced during the month

EF = 0.00238 lb/ton HMA produced (controlled)

EF = 0.119 lb/ton HMA produced (uncontrolled)

BC = 1 hr/3,000,000 cf baghouse capacity

b. **CO**

i. The owner or operator shall monthly calculate the CO emissions from HMA production based on product throughput and emission factors stated in the Table below unless another method is approved in writing by the District.

Emission Source	CO	Emission Factor Sources
Drum mixer	0.13 lb/ton	AP-42 Chapter 11.1-7
Silo filling*	0.00118 lb/ton	AP-42 Chapter 11.1-14
Plant load-out	0.00134 lb/ton	AP-42 Chapter 11.1-14

* "Silo filling" includes emissions from drag-slat conveyors and storage silos

ii. Using the above Emission Factors calculating the tons per month CO emissions is as follows:

E_{CO} = (X)(EF lb/ton)(1 ton/2000 lb.)

Where: E_{CO} = CO emissions (tons) during a consecutive 12-month period

X = the amount of HMA produced (tons), during a consecutive 12-month period

iii. The owner or operator shall account for the insignificant activity CO emissions from HMA production when totaling the monthly plant-wide emissions. Since the emissions are minor the owner or operator may use the potential CO emissions as the monthly emissions. District approved PTE is as follows:

- Drag-slat conveyor (E-1) = 215.35 lb. CO/month
- Silos (E-2) = 215.35 lb. CO/month
- Loadout (E-3) = 244.55 lb. CO/month

c. **VOC**

i. The owner or operator shall monthly calculate the VOC emissions from HMA production based on product throughput and emission factors stated in the Table below unless another method is approved in writing by the District.

Emission Source	VOC	Emission Factor Sources
Asphalt Storage Tank, 30000 gallon	6.53E-5 lb/ton	TANKS 4.09d
No. 2 Fuel Oil Tank, 1000 gallon	2.17E-6 lb/ton	TANKS 4.09d
Drum mixer	0.032 lb/ton	AP-42 Chapter 11.1-8
Silo filling*	0.01214 lb/ton	AP-42 Chapter 11.1-14
Plant load-out	0.004144 lb/ton	AP-42 Chapter 11.1-14

* "Silo filling" includes emissions from drag-slat conveyors and storage silos

ii. Using the above Emission Factors calculating the tons per month VOC emissions is as follows:

E_{VOC} = (X)(EF lb/ton)(1 ton/2000 lb.)

Where: E_{VOC} = VOC emissions (tons) during a consecutive 12-month period

X = the amount of HMA produced (tons), during a consecutive 12-month period

iii. The owner or operator shall account for the insignificant activity VOC emissions from HMA production when totaling the monthly plant-wide emissions. Since the emissions are minor the owner or operator may use the potential VOC emissions as the monthly emissions. District approved PTE is as follows

- Asphalt Storage Tank, 30000 gallon (T-1, T-2, T-3) = 23.85 lb VOC/month (each)
- No. 2 Fuel Oil Tank, 1000 gallon (T-4) = 0.80 lb VOC/month
- Loadout (E-3) = 756.28 lb. VOC/month

d. **SO_2**

i. The owner or operator shall monthly calculate the SO_2 emissions from HMA production based on product throughput and emission factors stated in the Table below unless another method is approved in writing by the District.

Emission Source	SO_2	Emission Factor Sources
Drum mixer burning No. 2 fuel oil	0.011 lb/ton	AP-42 Chapter 11.1-7
Drum mixer burning natural gas	0.003 lb/ton	AP-42 Chapter 11.1-7

ii. Using the above Emission Factors calculating the tons per month SO_2 emissions is as follows:

E_{SO2} = (X)(EF lb/ton)(1 ton/2000 lb.)

Where: E_{SO2} = SO_2 emissions (tons) during a consecutive 12-month period

X = the amount of HMA produced (tons), during a consecutive 12-month period

e. **NO_X**

i. The owner or operator shall calculate the NO_X emissions from HMA production based on product throughput and emission factors stated in the Table below unless another method is approved in writing by the District.

Emission Source	NO_X	Emission Factor Sources

Drum mixer burning No. 2 fuel oil	0.055 lb/ton	AP-42 Chapter 11.1-7
Drum mixer burning natural gas	0.026 lb/ton	AP-42 Chapter 11.1-7

ii. Using the above Emission Factors calculating the tons per year NO_X emissions is as follows:

E_{NOX} = (X)(EF lb/ton)(1 ton/2000 lb.)
Where: E_{NOX} = NO_X emissions (tons) annually
X = the amount of HMA produced (tons) annually

f. **TAC**

i. The owner or operator shall calculate the TAC emissions from HMA production based on product throughput and emission factors stated in the Table below unless another method is approved in writing by the District.

Emission Source	Pollutants	Emission Factors Unit	Uncontrolled Emission Factors	Controlled [3] Emission Factors	Emission Factor Sources
E-12	Arsenic	lb/ton	1.30E-06	5.60E-07	AP 42 Table 11.1-12
	Benzene	lb/ton	3.90E-04	3.90E-04	
	Cadmium	lb/ton	4.20E-06	4.10E-07	
	Chromium III	lb/ton	5.05E-04	5.05E-06	
	Formaldehyde	lb/ton	3.10E-03	3.10E-03	
	Cobalt	lb/ton	1.50E-05	2.60E-08	
	Copper	lb/ton	1.70E-04	3.10E-06	
	Lead	lb/ton	5.40E-04	6.20E-07	
	Manganese	lb/ton	6.50E-04	7.70E-06	
	Naphthalene	lb/ton	9.00E-05	9.00E-05	
	Ethylbenzene	lb/ton	2.40E-04	2.40E-04	
	Phosphorous	lb/ton	1.20E-03	2.80E-05	

ii. Using the above Emission Factors calculating the tons per year TAC emissions, for both controlled and uncontrolled conditions, is as follows:

E_{TAC} = (X)(EF lb/ton)
Where: E_{TAC} = TAC emissions (tons) annually
X = the amount of HMA produced (tons) annually

3 Controlled emission factor for Drum Mixer derived from District estimated 98% control efficiency for the baghouse for the TACs except Antimony which the uncontrolled emission factor was derived based on estimated 98% efficiency for the baghouse.

7. Insignificant Activities

Emission Process	Equipment Description	Quantity	PTE (tpy) each	Regulation Basis
Asphalt Storage Tank	Asphalt Storage Tank, 30000 gallon	3	VOC=0.14	Regulation 1.02, Appendix A
Fuel Oil Tank	No. 2 Fuel Oil Tank, 1000 gallon	1	VOC=0.048	Regulation 1.02, Appendix A
RAP feed bin	RAP feed bin, 50 tph	1	PM=1.51 PM_{10}=0.72	Regulation 1.02, Appendix A
Collecting conveyor	Collecting conveyor, 500 tph	1	PM=6.57 PM_{10}=2.41	Regulation 1.02, Appendix A
Aggregate crusher	Hartl model PG-13175-I RAP aggregate crusher, 100 tph	1	PM=2.37 PM_{10}=1.05	Regulation 1.02, Appendix A
HMA loadout station	HMA loadout station, 250 tph	1	PM=0.57 PM_{10}=0.57 VOC=4.54 CO=1.47	Regulation 1.02, Appendix A
Cold metal parts washer	Cold metal parts washer equipped with secondary reservoir, 50 gallon	1	VOC=0.413	Regulation 1.02, Appendix A

1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.

2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.

3) The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.

4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.

6) The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

a. IA-1 Equipment - Parts Washer

i. **Equipment**

Emission Point	Equipment	Quantity	PTE (tpy)	Applicable Regulations
E-16	Cold solvent washer for metal parts cleaning, pump with cleaning brush, no conveyor, with secondary reservoir, 50 gallon	1	VOC = 0.413	6.18

ii. **Standards/Operating Limits**

1) **VOC**

(a) Regulation 6.18 provides for the control of emissions from solvent metal cleaning equipment.