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

Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-0415-16-F Plant ID: 0415

Effective Date: xx/xx/201x Expiration Date: xx/xx/201x

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Owner/Source: Flynn Brothers Contracting, Inc.
4620 Robards Lane
Louisville, Kentucky 40213

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve (12) months and no later than ninety (90) days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant:	PM_{10}	CO	VOC
Tons/year:	< 100	< 100	< 100

Application No.:	12502	Application Received: 2/27/2006
	42742	9/10/2008
	74116	10/29/2015

Permit Writer: Elise Venard

Date of Public Notice: 09/09/2016; 10/12/2016

{Manager1}
Air Pollution Control Officer
{date1}

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FEDOOP Permit Revisions/Changes

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	xx/xx/20xx	09/08/2016	Renewal	Entire Permit	Permit renewal; Incorporation of construction permit C-0415-1000-16-F and Insignificant Activities
			10/12/2016	Significant	General Condition #10	Removed Green House Gas limits

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

Abbreviations and Acronyms

AP-42 - AP-42, *Compilation of Air Pollutant Emission Factors,* published by U.S.EPA
APCD - Louisville Metro Air Pollution Control District
BAC - Benchmark Ambient Concentration
BACT - Best Available Control Technology
Btu - British thermal unit
CEMS - Continuous Emission Monitoring System
CFR - Code of Federal Regulations
CO - Carbon monoxide
District - Louisville Metro Air Pollution Control District
EA - Environmental Acceptability
gal - U.S. fluid gallons
GHG - Greenhouse Gas
HAP - Hazardous Air Pollutant
HCl - Hydrogen chloride
Hg - Mercury
hr - Hour
in. - Inches
lbs - Pounds
l - Liter
LMAPCD - Louisville Metro Air Pollution Control District
mmHg - Millimeters of mercury column height
MM - Million
NAICS - North American Industry Classification System
NO_x - Nitrogen oxides
PM - Particulate Matter
PM_{10} - Particulate Matter less than 10 microns
$PM_{2.5}$ - Particulate Matter less than 2.5 microns
ppm - parts per million
PSD - Prevention of Significant Deterioration
psia - Pounds per square inch absolute
QA - Quality Assurance
RACT - Reasonably Available Control Technology
SIC - Standard Industrial Classification
SIP - State Implementation Plan
SO_2 - Sulfur dioxide
STAR - Strategic Toxic Air Reduction
TAC - Toxic Air Contaminant
UTM - Universal Transverse Mercator
VOC - Volatile Organic Compound
w.c. - Water column
year - Any period of twelve consecutive months, unless "calendar year" is specified
yr - Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.

2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.

3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.

5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.

6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.

7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.

8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.

9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as

the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in Section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.

10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM_{10}, $PM_{2.5}$, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; or any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA. Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.

11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.

12. Unless specified elsewhere in this permit, the owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All annual compliance reports shall include the following per Regulation 2.17, section 3.5.

    - A certification statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete", and
    - The signature and title of a responsible official of the company.

    The report must be postmarked no later than March 1 of the year following the calendar year covered in the annual report.

13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emissions Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution

Regulation	Title
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.07	Public Notification for Title V, PSD, and Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.17	Federally Enforceable District Origin Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions

14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors in the Ambient Air
2.08	Fees
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption of Federal New Source Performance Standards

15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.

16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.

17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

Air Pollution Control District
701 W. Ormsby Avenue, Third Floor
Louisville, Kentucky 40203-3137

Emission Unit: Plant-Wide Requirements

Plant-wide Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.14	Control of Fugitive Particulate Emissions	2.4
2.17	Federally Enforceable District Origin Operating Permits	1 through 9

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 7
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.23	Categories of Toxic Air Contaminants	1 through 6

Plant-wide Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **PM_{10}**

i. The owner or operator shall not allow the plant-wide emissions of the pollutant PM_{10} to equal or exceed 100 tons during any consecutive 12 month period. [1] (Regulation 2.17, section 5.1)

ii. No owner or operator shall cause or permit the discharge of visible fugitive emissions beyond the lot line of the property on which the emissions originate. (Regulation 1.14, section 2.4)

iii. The owner or operator shall operate and maintain the water suppression system at all locations in the facility as necessary to comply with the PM_{10} standards specified in this permit. [2] (Regulation 2.17, section 5.1)

[1] District Potential to Emit (PTE) calculations for this facility categorize this site's uncontrolled emissionsas potentially Major for PM_{10}, CO, and VOC. Flynn Brothers Contracting, Inc. is currently permitted to operate as a Synthetic Minor Source (FEDOOP) with STAR limits.

1) For each operating day, the owner or operator shall daily operate and maintain a water suppression system at all times the process equipment is in operation. If it is determined that weather conditions have contributed to the control of fugitive dust emissions, watering operations may be suspended until such time as it appears necessary for control of fugitive dust emissions.

2) The owner or operator shall perform a weekly visual inspection of the structural and mechanical integrity of the water suppression system for signs of damage, leakage, corrosion, or other equipment defects and repair as needed.

b. **CO**

The owner or operator shall not allow the plant-wide emissions of the pollutant CO to equal or exceed 100 tons during any 12 consecutive month period. (Regulation 2.17, section 5.1) (Permit 0183-01-F)

c. **VOC**

The owner or operator shall not allow or cause total plant-wide VOC emissions to equal or exceed 100 tons during any consecutive 12 month period. (Regulation 2.17, section 5.1)

d. **TAC**

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*. [3] (Regulations 5.00 and 5.21)

ii. The owner or operator shall submit with the notification of construction for any new emission unit the STAR EA Demonstration for all Category 1 through Category 4 TACs emitted from that emission unit.

iii. The owner or operator shall submit a *plant-wide* emissions-based EA Demonstration to the District showing compliance with the *plant-wide* EA goals of 7.5 for new and existing, 3.8 for all new combined, and 1.0 for each TAC from each process when a change occurs that increases emissions above *de minimis* or previously modeled values.

iv. If the TAC does not have an established BAC or de minimis value, the owner or operator shall calculate and report these values. The form,

[2] The criteria pollutant PM_{10} must be controlled to be less than the 100 ton/year emission limit of Regulation 2.17 through production limitations, water suppression, and PM emission control systems.

[3] Screen3 modeling confirmed all TACS are below the Environmental Acceptability Goals using the yearly production limit of 500,000 tpy of hot mix asphalt.

located in Attachment C - Determination of Benchmark Ambient Concentration (BAC), may be used for determining BAC and de minimis values.

e. **Unit Operation**

The owner or operator shall not allow the total production of hot mix asphalt to exceed the HMA production limit of 500,000 tons during any 12 month consecutive period. [3, 4] (Regulation 2.17, section 5.1)

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **PM_{10}**

i. The owner or operator shall monthly maintain records, including calculations, which show the plant-wide total PM_{10} emissions during each calendar month and consecutive 12 month period.

ii. 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 lb/ton†	AP-42 Chapter 11.12-2

* 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.

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

[4] The source requested a 500,000 tons per year production limit on May 4, 2001. The emissions of the criteria pollutants CO, VOC and PM_{10} do not exceed the 100 ton/year limit when the source does not exceed the synthetic limit of 500,000 ton/year of hot mix asphalt, while using the cyclone collector and baghouse, per the district approved PTE of 5/17/2016.

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

iv. 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

v. The owner or operator shall daily maintain records of the amount of product (HMA) produced that day.

vi. 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 [5]	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

vii. 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

viii. 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

[5] District calculated emission factors for PM_{10}, CO and VOC for Silo filling and Plant load-out were derived from AP-42, Chapter 11.1, Table 11.1.14 formulas using a default temperature of 325°F for the asphalt temperature "T" and the asphalt volatility "V" value of (-0.5).

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

ix. For each operating day the owner or operator shall record whether the water suppression system was not in operation when associated processing equipment was active. Records shall be made that day and include:

1) Date and duration of bypass

2) A calculated estimation of the uncontrolled PM_{10} emissions during the bypass event using the uncontrolled emission factors in the tables above.

x. For each operating week the owner or operator shall monitor and record the results of the weekly visual inspection of the water suppression system. Records shall be made the day of the inspection and include:

1) Date of the inspection;

2) Name of the person that performed the inspection;

3) Description of any equipment defects observed including damages, leakage, corrosion, or other defects that would cause a reduction on the control efficiency;

4) Description of any repairs made or replacement of system components.

xi. For each operating day the owner or operator shall record whether the process cyclone collector and baghouse were bypassed or not in operation when the drum mix asphalt plant was in operation. Records shall be made that day and include:

1) Date and duration of bypass;

2) A calculated estimation of the uncontrolled PM_{10} emissions during the bypass event using the uncontrolled emission factors in the tables above.

xii. The owner or operator shall monthly keep records of the visual inspection of the structural and mechanical integrity of the process cyclone and baghouse. Records shall be made the day of the inspection and include:

1) Date of the inspection;

2) Name of the person that performed the inspection;

3) Description of any equipment defects observed including damages, leakage, corrosion, or other defects that would cause a reduction on the control efficiency;

4) Description of any repairs made or replacement of system components; and

5) Description of all corrective actions taken to abate the situation.

b. **CO**

i. The owner or operator shall monthly maintain records, including calculations, which show the plant-wide total CO emissions during each calendar month and consecutive 12 month period. [6]

ii. 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

iii. 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

iv. 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

[6] The criteria pollutant CO must be controlled to be less than the 100 ton/year emission limit of Regulation 2.17 through HMA production limitations.

c. **VOC**

i. The owner or operator shall monthly maintain records, including calculations, which show the plant-wide VOC emissions during each calendar month and consecutive 12 month period. [7]

ii. 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 [8]	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

iii. 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

iv. 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. **TAC**

[7] The criteria pollutant VOC must be controlled to be less that the 100 ton/year emission limit of Regulation 2.17 through production limitations.

[8] District calculated VOC emission factors for the asphalt storage tanks were derived from TANKS 4.0.9d calculated yearly emissions while operating continuously under standard operating conditions for this region.

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS/SDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis* at the time of the change.

e. **Unit Operation**

The owner or operator shall monthly maintain records of the totals of the amounts of HMA produced during each month and consecutive 12 month period.

S3. **Reporting** (Regulation 2.17, section 5.2)

The following information shall be included in the annual compliance report required by General Condition #12.

a. **PM_{10}**

i. The owner or operator shall report the following plant-wide PM_{10} emissions records in the annual compliance report:

1) The beginning and end date of the reporting period.

2) The monthly and 12 consecutive month period totals of PM_{10} plant-wide emissions emitted each month during the reporting period.

ii. The owner or operator shall report the following water suppression system records:

1) The beginning and end dates of the reporting period;

2) Any deviation from the requirement to conduct or maintain records of the weekly visual inspection of the structural and mechanical integrity of the water dust suppression system.

3) Any failure to operate or maintain the water suppression system which would have resulted in reduced control performance;

4) The calculated lb/operational error event PM_{10} emissions for each excursion; or

5) A negative declaration if no excursion occurred.

iii. The owner or operator shall report the following process cyclone and baghouse records:

1) The beginning and end dates of the reporting period;

2) Any deviation from the requirement to conduct or maintain records of the weekly visual inspection of the structural and mechanical integrity of the process cyclone and baghouse.

3) All periods in the reporting period when the process cyclone and baghouse were offline and the drum mixer was in operation.

4) A calculated quantity of PM_{10} emitted in tons for each by-pass event.

5) A negative declaration if no by-passes occurred.

b. **CO**

i. The owner or operator shall report the following plant-wide CO emissions records:

1) The beginning and end dates of the reporting period.

2) The owner or operator shall report the monthly and 12 consecutive month period totals of the CO plant-wide emissions emitted each month during the reporting period.

c. **VOC**

i. The owner or operator shall report the following plant-wide VOC emissions records:

1) The beginning and end dates of the reporting period.

2) The owner or operator shall report the monthly and 12 consecutive month period totals of the VOC plant-wide emissions emitted each month during the reporting period.

d. **TAC**

i. The owner or operator shall report the following plant-wide TAC emissions records:

1) The beginning and end dates of the reporting period.

2) The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

3) For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental

Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21, sections 4.22 – 4.24)

4) The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material.

e. **Unit Operation**

i. The owner or operator shall report the following plant-wide Unit Operation records:

1) The beginning and end dates of the reporting period;

2) The monthly and 12 consecutive month period totals of hot mix asphalt produced during each month of the reporting period.

Comments for Plant-wide Requirements

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 completed in April 2016. 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 [9], [10]	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	Meet
Lead compounds	7439-92-1	0.19	0.00	0.17	0.00	Meet

[9] The organic TACs Benzene, Formaldehyde, Naphthalene are controlled via HMA production limit.

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

TAC [9], [10]	CAS #	Industrial		Non-Ind.		EA Demo
		R_C	R_{NC}	R_C	R_{NC}	
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

Emission Unit U1: Aggregate Stockyard

U1 Applicable Regulations: [11]

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.14	Control of Fugitive Particulate Emissions	2.4
2.17	Federally Enforceable District Origin Operating Permits	5.1, 5.2
7.08	Standards of Performance for New Process Operations	3.1.1, 3.1.2

U1 Equipment:

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E-1	(6) Limestone aggregate and sand stockpiles	1.14, 2.17 7.08	C-3	NA	1989
E-2	(1) RAP aggregate stockpiles				
E-3	Haul roads (paved), 0.06 mile	1.14			
E-4	Haul roads (unpaved), 0.19 mile				

U1 Control Devices:

Control ID	Description	Control Efficiency	Performance Indicator	Stack ID
C-3	Water suppression system	50%	NA	NA

[11] The District STAR regulations are not applicable to this unit because this unit does not emit any TACs.

U1 Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **PM/PM_{10}**

i. The owner or operator shall not cause or allow the emissions of particulate matter from the listed emission points to exceed the following limits: [12] (Regulation 7.08, section 3.1.2)

Emission Point ID	Equipment	Capacity	PM Limit (lb /hr)
E-1	Limestone aggregate and sand stockpiles	21600 ft^3	46.79
E-2	RAP stockpile	21600 ft^3	46.79

ii. The owner or operator shall not allow a road to be used without taking reasonable precautions to prevent particulate matter from becoming airborne beyond the work site. Such precautions shall include, where applicable, but shall not be limited to the following: [13] (Regulation 1.14, section 2.1)

1) Applying and maintaining asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts, (Regulation 1.14, section 2.1.2)

2) Covering at all times, except when loading and unloading, open bodied trucks transporting materials likely to become airborne, (Regulation 1.14, section 2.1.4)

3) Maintaining paved roadways in a clean condition, (Regulation 1.14, section 2.1.6)

4) Removing earth or other material from paved streets which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water. (Regulation 1.14, section 2.1.7)

iii. For additional PM_{10} standards see Emission Unit Plant-wide.

b. **Opacity**

i. The owner or operator shall not allow or cause visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1) (Regulation 1.14, section 2.3)

[12] The District has determined that the emission points E-1, E-2 cannot exceed the PM lb/hr limits uncontrolled.

[13] The District has determined that the emission points E-3 and E-4 (haul roads) are not subject to Regulation 7.08 and emissions must be controlled with water suppression and production limits to comply with PM_{10} emission limits.

ii. The owner or operator shall not allow visible fugitive emissions beyond the lot line of the property on which the emissions originate. (Regulation 1.14, section 2.4)

c. **Unit Operation**

For asphalt production limitations see Emission Unit Plant-wide.

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **PM/PM_{10}**

i. There are no monitoring or record keeping requirements related to the lb/hr emission standard for this emission unit.

ii. The owner or operator shall keep records of vehicle miles traveled (VMT) and weights for the vehicles traveled on unpaved and paved roads.

iii. For each operating day the owner or operator shall record whether the water suppression system was not in operation when associated processing equipment was active. Records shall be made that day and include:

1) Date and duration of bypass

2) A calculated estimation of the uncontrolled PM_{10} emissions during the bypass event using the uncontrolled emission factors in the tables above.

iv. For each operating week the owner or operator shall monitor and record the results of the weekly visual inspection of the water suppression system. Records shall be made the day of the inspection and include:

1) Date of the inspection;

2) Name of the person that performed the inspection;

3) Description of any equipment defects observed including damages, leakage, corrosion, or other defects that would cause a reduction on the control efficiency;

4) Description of any repairs made or replacement of system components.

v. For each operating day the owner or operator shall record whether the water suppression system was not in operation when associated processing equipment was active. Records shall be made that day and include:

1) Date and duration of bypass

2) A calculated estimation of the uncontrolled PM/PM_{10} emissions during the bypass event using the uncontrolled emission factors in the tables above.

vi. For each operating week the owner or operator shall monitor and record the results of the weekly visual inspection of the water suppression system. Records shall be made the day of the inspection and include:

1) Date of the inspection;

2) Name of the person that performed the inspection;

3) Description of any equipment defects observed including damages, leakage, corrosion, or other defects that would cause a reduction on the control efficiency;

4) Description of any repairs made or replacement of system components.

vii. For additional PM_{10} monitoring and record keeping requirements see Emission Unit Plant-wide.

b. **Opacity**

i. The owner or operator shall monthly conduct a one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting** (Regulation 2.17, section 5.2)

a. **PM/PM_{10}**

i. There are no reporting requirements related to the lb/hr emission standard for this equipment.

ii. For additional PM_{10} reporting requirements see Emission Unit Plant-wide.

b. **Opacity**

i. The owner or operator shall report the following emission unit opacity records:

1) The beginning and end date of the reporting period.

2) The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed. If not visible emissions were observed during the reporting period, the owner or operator shall submit a negative declaration.

3) The date, time and results of each Method 9 conducted. If there were no Method 9 tests performed during the reporting period, the owner or operator shall submit a negative declaration.

4) A description of any corrective action taken for each exceedance of the opacity standard.

5) A negative declaration if no exceedances occurred.

Emission Unit U2: Storage Tanks

U2 Applicable Regulations: [14]

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 4

U2 Equipment:

Emission Point	Description	Applicable Regulation [15]	Control ID	Stack ID	Installation Date
T-1 (IA)	Burke vertical storage tank #1, liquid asphaltic cement, 30000 gallon [16]	2.17, 7.12	NA	NA	1989
T-2 (IA)	Burke vertical storage tank #2, liquid asphaltic cement, 30000 gallon		NA	NA	1989
T-3 (IA)	Burke horizontal storage tank #3, liquid asphaltic cement, 30000 gallon		NA	NA	1989
T-4 (IA)	#2 fuel oil tank, 1000 gallon		NA	NA	2005

[14] The District STAR regulations are not applicable to this unit because this unit does not emit any TACs.

[15] This source is subject to 40 CFR 60 Subpart I; however, the regulations stipulated do not apply to the equipment because it is not associated with an emission control system.

[16] The tanks are not subject 40 CFR 60 Subpart Kb because the vapor pressure is less than the required 1.5 kPa.

U2 Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **VOC**

i. The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessel(s), unless the storage tank is equipped with a permanent submerged fill pipe.[17] (Regulation 7.12, section 3.3)

ii. For additional VOC standards see Emission Unit Plant-wide.

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. The owner or operator of the storage vessel(s) shall maintain records of the material stored and the vapor pressure in each storage vessel and if the contents of the storage vessel(s) are changed a record shall be made of the new contents, the date of the change, and the new vapor pressure in order to demonstrate compliance.

ii. The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

iii. For additional VOC monitoring and record keeping requirements see Emission Unit Plant-wide.

S3. **Reporting** (Regulation 2.17, section 5.2)

a. **VOC**

i. There are no VOC reporting requirements for this emission unit related to Regulation 7.12.

ii. For additional VOC reporting requirements see Emission Unit Plant-wide.

[17] The District has determined that the storage tanks under standard conditions and stated vapor pressure limits cannot exceed the VOC standard while uncontrolled.

Emission Unit U3: Aggregate and RAP Processing

U3 Applicable Regulations: [18]

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	3.11, 3.12

U3 Equipment:

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E-5	(6) Limestone aggregate feed bins, continuous feed	7.08	C-3	NA	1989
E-6 (IA)	(1) RAP feed bin				2000
E-7	(6) Feeder belts (one per V.A. bin) emptying to the collecting conveyor				1989
E-8 (IA)	(1) Collecting conveyor, 36"				1998
E-9	Simplicity model M-120-B sand and aggregate sorting screen, 16'x6' 2-deck				1998
E-10	Keestrack model Novum #154 RAP vibrating aggregate sorting "grisly" screen				2013
E-11 (IA)	Hartl model PG-13175-I RAP aggregate crusher				2013

U3 Control Devices:

Control ID	Description	Control Efficiency	Performance Indicator	Stack ID
C-3	Water suppression system	50%	NA	NA

[18] The District STAR regulations are not applicable to this unit because this unit does not emit any TACs.

U3 Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **PM/PM_{10}**

i. The owner or operator shall not cause or allow the emissions of particulate matter from the listed emission points to exceed the following limits: [19] (Regulation 7.08, section 3.1.2, Table 1)

Emission Point ID	Equipment	Capacity	PM Limit (lb /hr)
E-5	Limestone aggregate feed bins	500 tph	46.79
E-6	RAP feed bin	50 tph	23.37
E-7	Feeder belts	500 tph	46.79
E-8	Collecting conveyor	500 tph	46.79
E-9	Simplicity aggregate sorting screen	500 tph	46.79
E-10	Keestrack aggregate sorting "grisly" screen	200 tph	38.83
E-11	Hartl aggregate crusher	100 tph	36.17

ii. For additional PM_{10} standards see Emission Unit Plant-wide.

b. **Opacity**

The owner or operator shall not allow or cause visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **PM/PM_{10}**

i. There are no monitoring or record keeping requirements related to the lb/hr emission standard for this emission unit to comply with Regulation 7.08.

ii. For additional PM_{10} monitoring and record keeping requirements see Emission Unit Plant-wide.

[19] The District has determined that the aggregate processing emission points E-5 through E-11 under standard conditions cannot exceed PM lb/hr emission limits uncontrolled.

b. **Opacity**

i. The owner or operator shall monthly conduct a one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall monthly maintain records that show the results of all visible emissions surveys and Method 9 tests performed. The records shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what is any corrective action was taken to minimize visible emissions. If the process operation is not being operated during a given day, then no visible emission survey is required to be performed and a negative declaration shall be entered in the record.

S3. **Reporting** (Regulation 2.17, section 5.2)

a. **PM/PM_{10}**

i. There are no reporting requirements related to the lb/hr emission standard for this equipment.

ii. For additional PM_{10} reporting requirements see Emission Unit Plant-wide.

b. **Opacity**

i. The owner or operator shall report the following opacity records:

1) The beginning and end date of the reporting period.

2) The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed. If not visible emissions were observed during the reporting period, the owner or operator shall submit a negative declaration.

3) The date, time and results of each Method 9 conducted. If there were no Method 9 tests performed during the reporting period, the owner or operator shall submit a negative declaration.

4) A description of any corrective action taken for each exceedance of the opacity standard.

5) A negative declaration if no exceedances occurred.

Emission Unit U4: HMA Operation

U4 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.17	Federally Enforceable District Origin Operating Permits	5.1, 5.2
7.08	Standards of Performance for New Process Operations	3.11, 3.12
7.09	Standard of Performance for New Process Gas Streams	4, 5
7.11	Standard of Performance For New Asphalt Paving Operations	3.1.1
40 CFR Part 60 Subpart I	Standards of Performance for Hot Mix Asphalt Facilities	§60.90 - §60.93

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.14	Hazardous Air Pollutants and Source Categories	1, 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards	All

U4 Equipment:

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E-12	Standard Havens model E-500-R, drum-style HMA dryer/mixer "counter-flow drum mixer" with: 126.6 MMBtu/hr burner, and asphalt metering pump model AF 1541 hot oil transfer heater, natural gas	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	C-1, C-2	S-1	1998
E-13	Drag-slat HMA conveyor	2.17, 7.08	NA	NA	1998
E-14	HMA product silos				1998
E-15 (IA)	Loadout station				1998

U4 Control Devices:

Control ID	Description	Control Efficiency	Performance Indicator	Stack ID
C-1	Cedar Rapids model 11.5 cyclone precipitator/collector	90%	VE survey	S-1
C-2	Cedar Rapids model 40 baghouse ASTEC model 98-062 dust "mineral filler" silo (filled from PM precipitator and cyclone)	95%	2” to 6” w.c. pressure drop	S-1

U4 Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **PM/PM_{10}**

i. The owner or operator shall not discharge or cause to be discharged into the atmosphere from E-12 any gasses that contain particulate matter in excess of 90 mg/dscm (0.040 gr/dscf) based on one calendar day. (Regulation 7.11, section 3.1.1)(40 CFR 60.92(a)(1))

ii. The owner or operator shall not cause or allow the emissions of particulate matter from the listed emission points to exceed the following limits: [20] (Regulation 7.08, section 3.1.2, Table 1)

Emission Point ID	Equipment	Capacity	Limit (lb /hr)
E-12	Drum HMA mixer	500 tph	46.79
E-13	Drag-slat HMA conveyor	500 tph	46.79
E-14	HMA product silos	250 tph	40.16
E-15	Loadout station	250 tph	40.16

iii. The owner or operator shall operate and maintain the process cyclone and baghouse at all times the associated emission point (E-12) is in operation to meet PM standards specified in this permit. (Regulation 2.17, section 5.1)

1) The owner or operator shall daily operate and maintain the process cyclone and baghouse at all times drum mixer (E-12) is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice to meet the standards.

2) The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of the cyclone and baghouse for signs of damage, air leakage, corrosion, etc. and repair shall be performed as needed.

iv. For additional PM_{10} standards see Emission Unit Plant-wide.

b. **Opacity**

i. The owner or operator shall not discharge or cause to be discharged in to the atmosphere from E-12 any gasses that exhibit twenty percent (20%) opacity or greater. Where the presence of uncombined water is the only

[20] The District has determined that the HMA production emission points E-13, E-14, and E-15, under standard conditions, cannot exceed hourly PM lb/hr limits uncontrolled

reason for failure to meet the requirements of this section, such failure shall not be a violation. (Regulation 7.11, section 3.1.2)(40 CFR 60.92(a)(2))

ii. The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

c. **VOC**

i. The owner or operator shall not use, sell for use, manufacture, mix or store cutback asphalts or unacceptable emulsion asphalts for asphalt paving operations, except as exempted in Regulation 7.11, section 5. (Regulation 7.11, section 4)

ii. For additional VOC standards see Emission Unit Plant-wide.

d. **CO**

i. The owner or operator of a facility shall not emit carbon monoxide gasses from the HMA process (E-12) unless they are burned at 1,300 °F for 0.5 seconds or greater in a direct flame afterburner or equivalent device equipped with a pyrometer that is positioned in the working area at the operator's eye level. [21] (Regulation 7.09, section 5.1)

ii. For additional CO standards see Emission Unit Plant-wide.

e. **SO_2**

The owner or operator shall not allow the emissions from the HMA Drum Mixer (E-12) of the pollutant SO_2 to equal or exceed 40 tons during any 12 consecutive month period. [22] (Regulation 7.09, section 4)

f. **TAC**

i. The owner or operator shall not allow TAC emissions for the drum mixer with burner (E-12) to exceed the TAC emission standards listed in the following table. [23] (Regulation 5.21, section 4.2 and section 4.3)

[21] 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.

[22] The synthetic limit reduces the emissions of criteria pollutant SO_2 to less than 40 tons during any 12 consecutive month period standards.

[23] 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.

			TAC Limits Determination	
E-12	**TAC [24]**	**CAS #**	(lbs/12-consecutive month period)	**Basis of Limits**
	Chromium VI	7440-47-3	14.6	Controlled PTE
	Nickel	7440-02-0	671.6	Controlled PTE

ii. The owner or operator shall operate and maintain the Cyclone precipitator (C-1) and Baghouse (C-2) at all times when the HMA operation is in production, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice to meet the standards. (Regulation 5.21, section 4.2 and section 4.3)

iii. For additional TAC standards see Emission Unit Plant-wide.

g. **Unit Operation**

For Drum Mixer (E-12) asphalt production limitations see Emission Unit Plant-wide.

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **PM/PM_{10}**

i. For Emission Points (E-13, E-14, and E-15): There are no monitoring or record keeping requirements related to the lb/hr emission standard for this emission unit to comply with Regulation 7.08.

ii. The owner or operator shall daily maintain records of the amount of product (HMA) produced that day.

iii. The owner or operator shall, daily, monitor and record the pressure drop across the baghouse tube sheet (C-2) and note if the differential pressure is out of the range of 2-6" W.C.

iv. If there is any time that the control device (C-1, C-2) is bypassed or not in operation, or the pressure drop is out of range when the Drum Mixer (E-12) is operating, then the owner or operator shall keep a record of the following for each excursion event:

1) Date;

[24] The owner or operator may comply with these emission limits through fabric filter controls.

2) Start time and stop time;

3) Identification of the control device and process equipment;

4) PM emissions during the bypass in lb/hr;

5) Summary of the cause or reason for each bypass event;

6) Corrective action taken to minimize the extent or duration of the bypass event; and

7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

8) A negative declaration if no excursions were experienced during the reporting period.

v. The owner or operator shall monthly keep records of the visual inspection of the structural and mechanical integrity of the process cyclone and baghouse. Records shall include:

1) Date of the inspection;

2) Name of the person that performed the inspection;

3) Description of any equipment defects observed including damages, leakage, corrosion, or other defects that would cause a reduction on the control efficiency;

4) Description of any repairs made or replacement of system components; and

5) Description of all corrective actions taken to abate the situation.

vi. 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. [25]

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) [26]

[25] A Method 5 stack test was performed on September 24, 1993. 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.

[26] The District has assumed a 98% efficiency rate to determine uncontrolled emission factor from the controlled emission factor. Baghouse's capacity is from the stated value in the application from 20 January 1993. This efficiency may be changed when the next Stack Test is performed.

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

vii. The owner or operator shall keep records of the preventative maintenance performed on the baghouse and be made available to the District upon request.

viii. To monitor ongoing compliance with the PM emissions standard, the owner or operator of the baghouse shall comply with the following:

1) The condition of the bags shall be checked on a bi-monthly basis and the bags shall be replaced as needed.

2) A bi-monthly log of visual baghouse inspections shall be maintained.

3) A bi-monthly log of bag replacements shall be maintained.

4) A bi-monthly log of baghouse dust removal shall be maintained.

5) A weekly log book of daily pressure drop gauge readings across the baghouse shall be maintained.

6) Each baghouse shall be checked on an annual basis for ruptured bags, using fluorescent dye; the results of these tests shall be noted in the log book.

ix. For additional PM_{10} monitoring and record keeping requirements see Emission Unit Plant-wide.

b. **Opacity**

i. For the baghouse (C-2), the owner or operator shall:

1) Perform visible emissions surveys as required to be used as an indicator of performance in addition to verifying compliance with the opacity standard.

ii. The owner or operator shall monthly conduct a one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

iii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within 8 hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iv. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible

emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

c. **VOC**

For additional VOC monitoring and record keeping requirements see Emission Unit Plant-wide.

d. **CO**

i. No monitoring or record keeping is required to show compliance with the process burn temperatures related to Regulation 7.09.

ii. For additional CO monitoring and record keeping requirements see Emission Unit Plant-wide.

e. **SO_2**

i. The owner or operator shall monthly maintain records, including calculations, of the monthly total and the 12 consecutive month total SO_2 emissions from the HMA Drum Mixer (H-1).

ii. The owner or operator shall daily maintain records of the amount of product (HMA) produced.

iii. 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

iv. 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

f. **TAC**

i. The owner or operator shall monthly maintain records, including calculations, which show the emission unit TAC emissions during each calendar month and consecutive 12 month period.

ii. The owner or operator shall monthly 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 Emission Factors [27]	Emission Factor Sources
E-12	Chromium VI	lb/ton	4.50E-5	4.50E-7	AP 42 Table 11.1-12
	Nickel	lb/ton	1.3E-3	6.30E-5	

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

E_{TAC} = (X)(EF lb/ton)

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

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

iv. If there is any time that the Cyclone Precipitator (C-1) and Baghouse (C-2) are bypassed or not in operation when the Drum Mixer (E-12) is in production, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;

2) Start time and stop time;

3) Identification of the control device and process equipment;

4) TAC emissions during the bypass, in lb/12 consecutive month period;

5) Summary of the cause or reason for each bypass event;

6) Corrective action taken to minimize the extent or duration of the bypass event; and

v. For additional TAC monitoring and record keeping requirements see Emission Unit Plant-wide.

[27] Controlled emission factors for metallic TACs are based on a 98% PM control efficiency of the process-associated baghouse.

g. **Unit Operation**

For Drum Mixer (E-12) asphalt production limitations monitoring and record keeping requirements see Emission Unit Plant-wide.

S3. **Reporting** (Regulation 2.17, section 5.2)

a. **PM/PM_{10}**

i. For Emission Points (E-13, E-14, and E-15): There are no reporting requirements related to the lb/hr emission standard for this equipment.

ii. The owner or operator shall report the following baghouse monitoring records:

1) The beginning and end dates of the reporting period;

2) Any failure to daily monitor or record the pressure drop for the baghouse;

3) Any excursions from the stipulated pressure drop that would indicate an interruption of baghouse performance;

4) A negative declaration if no excursions occurred.

iii. The owner or operator shall report the following baghouse records:

1) The beginning and end dates of the reporting period;

2) The number of times the PM vent stream bypassed the control device and is vented to the atmosphere;

3) The duration of each bypass to the atmosphere

4) The calculated pound per bypass event PM emissions for each bypass.

5) A negative declaration if no bypass occurred.

iv. The owner or operator shall report the following stack emission records:

1) The beginning and end dates of the reporting period;

2) The number of times the baghouse operated uncontrolled;

3) The calculated gr/cf emissions during the uncontrolled event;

4) The number of times the gr/cf standard was exceeded;

5) The calculated gr/cf emissions during the exceedance;

6) The reason for the exceedance

7) A negative declaration if no uncontrolled or limit exceedances occurred.

v. For additional PM_{10} reporting requirements see Emission Unit Plant-wide.

b. **Opacity**

i. The owner or operator shall report the following opacity records:

1) The beginning and end date of the reporting period.

2) The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed. If not visible emissions were observed during the reporting period, the owner or operator shall submit a negative declaration.

3) The date, time and results of each Method 9 conducted. If there were no Method 9 tests performed during the reporting period, the owner or operator shall submit a negative declaration.

4) A description of any corrective action taken for each exceedance of the opacity standard.

5) A negative declaration if no exceedances occurred.

c. **VOC**

i. There are no additional VOC reporting requirements for this emission unit related to Regulation 7.11.

ii. For additional VOC reporting requirements see Emission Unit Plant-wide.

d. **CO**

i. There are no CO emissions reporting requirements for this emission unit related to Regulation 7.09.

ii. For additional CO reporting requirements see Emission Unit Plant-wide.

e. **SO_2**

i. The owner or operator shall report the following SO_2 records in the annual compliance report:

1) The beginning and end date of the reporting period.

2) The monthly and 12 consecutive month period totals of the SO_2 emissions emitted each month during the reporting period.

3) Any exceedances of the SO_2 emission standard.

4) A negative declaration if no excursions occurred.

f. **TAC**

i. The owner or operator shall report the following information regarding bypass activity in the annual compliance reports.

1) The beginning and end date of the reporting period.

2) Number of times the vent stream bypasses the Baghouse (C-2) and is vented to the atmosphere when the Drum Mixer (E-12) is in production;

3) The duration of each bypass to the atmosphere;

4) The calculated TAC emissions, in lb/12 consecutive month period, for each bypass and identification of any exceedance of the TAC standards; or

5) A negative declaration if no bypasses occurred.

ii. For additional TAC reporting requirements see Emission Unit Plant-wide.

g. **Unit Operation**

For additional Unit Operation reporting requirements for the drum mixer (E-12) see Emission Unit Plant-wide.

S4. **Testing** (Regulation 2.17, section 5.2)

The owner or operator shall conduct performance testing in a manner consistent with the following resting requirements.

General Testing Requirements:

Plant-wide the owner or operator shall retest control device (C-2) within 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.

The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

a. **PM/PM_{10}**

i. The owner or operator shall perform an EPA Reference Method 5 PM performance test on the inlet and outlet of the control device 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. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for PM compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the performance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a Protocol Checklist for a Performance Test with the information to be submitted in the protocol.

iii. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iv. 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.

b. **Opacity**

The owner or operator shall demonstrate compliance with the opacity limit by initially conducting a test in accordance with Method 9 of 40 CFR 60 Appendix A at the same time as the Method 5 PM performance test. The test shall be performed at maximum capacity or allowable/permitted capacity or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test at these conditions may necessitate a re-test. The maximum 6-minute average opacity exhibited during the test period

shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be 3 hours (30 6-minute averages).

Insignificant Activities

Emission Process	Equipment Description	Quantity	PTE (tpy) each	Regulation Basis
Asphalt Storage Tank	Asphalt Storage Tank, 30000 gallon (Emission Unit U2)	3	VOC=0.14	Regulation 1.02, Appendix A
Fuel Storage Tank	No. 2 Fuel Oil Storage Tank, 1000 gallon	1	VOC=0.048	Regulation 1.02, Appendix A
RAP feed bin	RAP feed bin, 50 tph (Emission Unit U3)	1	PM_{10}=0.72	Regulation 1.02, Appendix A
Collecting conveyor	Collecting conveyor, 500 tph (Emission Unit U3)	1	PM_{10}=2.41	Regulation 1.02, Appendix A
Aggregate crusher	Hartl model PG-13175-I RAP aggregate crusher, 100 tph (Emission Unit U3)	1	PM_{10}=1.05	Regulation 1.02, Appendix A
HMA load-out station	HMA load-out station, 250 tph (Emission Unit U4)	1	VOC=4.54	Regulation 1.02, Appendix A
Cold metal parts washer	Cold metal parts washer with secondary reservoir, 50 gallon (Emission Unit I.A.-1)	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.

Emission Unit I.A.-1: Parts Washer

I.A.-1 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	4

I.A.-1 Equipment:

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E-16	Cold solvent washer for metal parts cleaning, pump with cleaning brush, no conveyor, with secondary reservoir, 50 gallon	6.18	NA	NA	1998

IA-1 Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.2)

a. **VOC**

i. The owner or operator shall install, maintain, and operate the cold solvent metal parts washer control equipment as follows: (Regulation 6.18, section 4)

1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. (Regulation 6.18, section 4.1.1)

2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. (Regulation 6.18, section 4.1.2)

3) A permanent, conspicuous label summarizing the operating requirements specified in Specific Condition S1.a.ii. shall be installed on or near the cold cleaner. (Regulation 6.18, section 4.1.3)

4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent

solvent from splashing outside of the cold cleaner. (Regulation 6.18, section 4.1.4)

5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner. (Regulation 6.18, section 4.1.6)

6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks. (Regulation 6.18, section 4.1.8)

ii. The owner or operator of the parts washer shall observe at all times the following operating requirements: (Regulation 6.18, section 4.2)

1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. (Regulation 6.18, section 4.2.1)

2) The solvent level in the cold cleaner shall not exceed the fill line. (Regulation 6.18, section 4.2.2)

3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. (Regulation 6.18, section 4.2.3)

4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. (Regulation 6.18, section 4.2.4)

5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. (Regulation 6.18, section 4.2.5)

6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities. (Regulation 6.18, section 4.2.6)

7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. (Regulation 6.18, section 4.2.7)

iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20°C (68°F). (Regulation 6.18, section 4.3.2)

iv. See Plant-wide Emission Unit.

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. For the cold parts washer the owner or operator shall maintain records that include the following for each solvent purchase.

1) The name and address of the solvent supplier,

2) The date of the purchase,

3) The type of the solvent, and

4) The vapor pressure of the solvent measured in mm Hg at 20ºC (68ºF).

ii. All records required in Specific Condition S2.a.i shall be retained for 5 years and made available to the District upon request.

iii. See Plant-wide Emission Unit.

S3. **Reporting** (Regulation 2.17, section 5.2)

a. **VOC**

i. For the cold parts washer, there are no routine compliance reporting requirements for Regulation 6.18.

ii. See Plant-wide Emission Unit.

Portable Equipment:

Portable worksite equipment owned by Flynn Brothers Contracting, Inc.

Emission Point	Description	Capacity	Stack ID	Install Date
P-1	RAP stockpile	250 tph	NA	NA
P-2	Portable crusher receiving hopper	250 tph	NA	NA
P-3	Portable crusher	250 tph	NA	NA
P-4	48” portable crusher discharge conveyor	250 tph	NA	NA
P-5	Portable screen receiving hopper	250 tph	NA	NA
P-6	12’x4’, 2-deck screen	250 tph	NA	NA
P-7	36” portable screen discharge conveyor #1	250 tph	NA	NA
P-8	Processed RAP stockpile #1	250 tph	NA	NA
P-9	36” portable screen discharge conveyor #2	250 tph	NA	NA
P-10	Processed RAP stockpile #2	250 tph	NA	NA
P-11	48” portable screen discharge conveyor	250 tph	NA	NA
P-12	Processed RAP stockpile #2	250 tph	NA	NA

Fee Comment

1. On May 15, 2013, the Board approved revisions to Regulation 2.08, which implemented a new fee structure.

2. STAR Review fee of $1,556.54 and a De Minimis Determination fee of $518.90 result in total permit fees due of $2,075.44 which is required to be paid prior to the issuance of this permit.

Attachment A -- District Approved Calculation Methodology[28]

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **PM**

i. 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 [29]	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 [30]lb/ton	AP-42 Chapter 11.12-2
Sand transfer	0.0021 lb/ton	0.0011lb/ton	AP-42 Chapter 11.12-2

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

ii. 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 annually

iii. 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

[28] The pollutants covered in this attachment do not have limits to avoid being a major source, but the emission factors and methodology are to be used when calculating emissions for these pollutants to report to the District as required.

[29] Controlled emission factor for Aggregate Storage pile derived from District estimated 50% control efficiency for water suppression.

[30] Controlled emission factor for Aggregate transfer and Sand transfer derived from District estimated 50% control efficiency for water suppression.

iv. The owner or operator shall daily maintain records of the amount of product (HMA) produced that day.

v. 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

vi. 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) annually

X = the amount of HMA (tons) produced annually

vii. 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

b. **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 [31] 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	

[31] 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.

Emission Source	Pollutants	Emission Factors Unit	Uncontrolled Emission Factors	Controlled [31] Emission Factors	Emission Factor Sources
	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

c. **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

Attachment B - Protocol Checklist for a Performance Test

A completed protocol should include the following information:

- ☐ 1. Facility name, location, and ID #;
- ☐ 2. Responsible Official and environmental contact names;
- ☐ 3. Permit numbers that are requiring the test to be conducted;
- ☐ 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- ☐ 5. Alternative test methods or description of modifications to the test methods to be used;
- ☐ 6. Purpose of the test including equipment and pollutant to be tested; the purpose may be described in the permit that requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- ☐ 7. Tentative test dates (These may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation.);
- ☐ 8. Maximum rated production capacity of the system;
- ☐ 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits);
- ☐ 10.Method to be used for determining rate of production during the performance test;
- ☐ 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- ☐ 12. Description of normal operation cycles;
- ☐ 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- ☐ 14. Process flow diagram;
- ☐ 15. The type and manufacturer of the control equipment, if any;
- ☐ 16. The control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test. Note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- ☐ 17. How quality assurance and accuracy of the data will be maintained, including;
    - Sample identification and chain-of-custody procedures
    - If audit samples are required for this test method, audit sample provider and number of audit samples to be used
- ☐ 18. Pipe, duct, stack, or flue diameter to be tested;
- ☐ 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- ☐ 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
    - Method 1 if stack diameter is >12"
    - Method 1a if stack diameter is greater than or equal to 4" and less than 12"
    - Alternate method of determination for <4"
    - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Method 1, Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
- ☐ 21. The Stack Test Review fee shall be submitted with each stack test protocol.

Attachment C - Determination of Benchmark Ambient Concentration (BAC)

Determination of Benchmark Ambient Concentration (BAC) **Category _____ No. _____**

TAC _____ **CAS No.** _____-_____-____

_____ **Mol. Wt. _____**

BAC_C = _____ µg/m³ Annual **BAC_{NC} = _____ µg/m³ _____ Averaging Period**

De Minimis_____ lb/hour; _____ lb/_____; _____ lb/year

I. Carcinogen Risk - BAC_C [Annual Averaging Period] Carcinogen . . . . ☐ yes ☐ no

1. ☐ IRIS ☐ no 10^{-6} risk = _____ µg/m³ URE _____ $(\mu g/m^3)^{-1}$ ___-___-___
2. ☐ Cal ☐ no 10^{-6} risk = _____ µg/m³ IUR _____ $(\mu g/m^3)^{-1}$ ___-___-___
3. ☐ MI ☐ no 10^{-6} risk = _____ µg/m³ ___-___-___
4. ☐ NTP Part A ☐ yes ☐ no Part B ☐ yes ☐ no
5. ☐ IARC Group 1 ☐ yes ☐ no Group 2A ☐ yes ☐ no Group 2B ☐ yes ☐ no
6. ☐ ATSDR ☐ no
7. ☐ Sec. 3.3.4 method _____☐ no 10^{-6} risk = _____ µg/m³ ___-___-___
8. ☐ Default 0.0004 µg/m³

II. Chronic Noncancer Risk - BAC_{NC} [Averaging Period as Specified]

1. ☐ IRIS ☐ no RfC = _____ µg/m³ Annual ___-___-___
2. ☐ Cal ☐ no REL = _____ µg/m³ Annual ___-___-___
3. ☐ IRIS[1] ☐ no RfD = _____µg/kg/day ⊗ 70/20 =_____µg/m³ Annual ___-___-___
4. ☐ MI ☐ no ITSL = _____ µg/m³_____ Averaging Period ___-___-___
5. ☐ TLV ☐ NIOSH _____ µg/m³ ⊗ 0.01 = _____ µg/m³ 8-Hr ___-___-___
6. ☐ RTECS[1] _____ _____ = _____ µg/m³ Annual
7. ☐ Default 0.04 µg/m³ Annual

III. De Minimis

1. ☐ Carcinogen (BAC_C) _____ µg/m³ ⊗ 0.54 = _____ lb/hour
   (BAC_C) _____ µg/m³ ⊗ 480 = _____ lb/year
2. ☐ Chronic Noncancer Risk _____ Averaging Period
   (BAC_{NC}) _____ µg/m³ ⊗ _____ = _____ lb/hour
   (BAC_{NC}) _____ µg/m³ ⊗ _____ = _____ lb/_____
   _____ lb/_____ ⊗ _____ _____ = _____ lb/year

[1] To use data based upon an oral route of exposure, the District must make an affirmative determination that data are not available to indicate that oral-route to inhalation-route extrapolation is inappropriate.

Prepared by _____ ___-___-___