Louisville Metro Air Pollution Control District

850 Barret Ave., Louisville, Kentucky 40204
16 January 2015

Federally Enforceable District Origin Operating Permit Statement of Basis

Company: IMI South, LLC - Middletown

Plant Location: 12901 Avoca Road, Louisville, Kentucky 40223

Date Application Received: 13 November 2014

Date of Public Notice: 16 January 2015

District Engineer: Bob Wesely **Permit No:** O-1369-14-F

Plant ID: 1369 **SIC Code:** 3273 **NAICS**: 327320

Introduction:

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

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

Application Type/Permit Activity:

[X] Initial Issuance

[ ] Permit Revision
- [ ] Administrative
- [ ] Minor
- [ ] Significant

[ ] Permit Renewal

Compliance Summary:

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

I. Source Information

1. Product Description: IMI South, LLC-Middletown is a combination central mix (wet)/ mix/transit truck (dry) mix, ready mix concrete production facility, consisting of one (1) central mix (wet) and one (1) mix/transit truck (dry) ready mix concrete batch plants utilizing the same conveyors, aggregate bins, weigh hoppers, cement silos flyash silos and slag silo.

2. Process Description: At the ready mix plant, the dry components of ready mix concrete (cement, flyash, slag, sand, and aggregate) are measured and loaded with water into a central mixer that discharges the wet mix concrete into ready mix concrete transit trucks or the dry components of the ready mix concrete are loaded with water into transit/mixer trucks that mix the concrete, and the ready mix concrete is transported to offsite delivery locations.

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

4. Emission Unit Summary:

Emission Unit	Equipment Description
U1	One (1) Erie-Strayer, model 7265, central mix (wet)/one (1) Stephens mix/transit truck mix(dry) combination ready mix concrete plant, utilizing the same two (2) cement silos, same two (2) flyash silos, same single slag silo, same single outside aggregate/sand conveyor for loading overhead aggregate/sand bins, and same single Stephens, model SOS8000, baghouse central dust collection system.

5. Fugitive Sources: The fugitive sources identified by the source are uncontrolled portions of the ready mix concrete unit.

6. Permit Revisions:

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	O-1369-14-F	2/__/2015	1/16/2015	Initial	Entire Permit	Initial Permit Issuance

7. Emission Summary:

Pollutant	District Calculated Actual Emissions (tn/yr) 2011 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	0	No
NO_x	0.02	No
SO_2	0	No
PM	0.26	No
PM_{10}	0.12	Yes
VOC	0.000	No
Total HAPs	0	No
Single HAP	0	No

8. Applicable Requirements:

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

9. MACT Requirements: The source has no future MACT requirements.

10. Referenced Federal Regulations in Permit: There are no federal regulations for ready mix concrete batch plants.

II. Regulatory Analysis

1. Acid Rain Requirements: IMI South, LLC-Middletown is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. IMI South, LLC-Middletown does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

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

4. 40 CFR Part 64 Applicability Determination: IMI South, LLC-Middletown is

not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources*.

5. Basis of Regulation Applicability

a. **Plant-wide**

IMI South, LLC-Middletown is a potential major source for the pollutant PM_{10}. Regulation 2.17 – F*ederally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source requested limits of the criteria pollutant PM_{10} < 25 tn/yr to be a FEDOOP STAR Exempt soured as defined by Regulation 5.00, section 1.13.5. The source is not major for Greenhouse Gases.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. IMI South, LLC-Middletown took the total plantwide limits of 25 tn/yr for criteria pollutants to be a FEDOOP STAR Exempt source

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

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

b. **Emission Unit U1 –** Combination central (wet) mix/ mix/transit truck (dry) mix ready mix concrete batch plant, utilizing the same cement silos, flyash silos, slag silo, weight hoppers, and conveyors.

i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E1: Aggregate/sand	330 tn/hr	8/1/00	1.14	

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
conveyor loading hoppers, (4)			2.17 7.08	Regulation 1.14 requires reasonable measures to prevent particulate particles airborne beyond the worksite. Regulation 2.17 applies to a source taking a limit to be minor. Regulation 7.08 establishes the requirements for PM emissions from new processes that commence construction after September 1, 1976.
E2: Overhead aggregate/sand bin loading conveyor	420 tn/hr	8/1/00		
E3: Aggregate/sand storage bins	420 tn/hr	8/1/00		
E4: Cement silo #1	90 tn	8/1/00		
E5: Flyash silo #1	90 tn	8/1/00		
E6: Cement silo #2	76 tn	8/1/00		
E7: Slag silo #1	46 tn	8/1/00		
E8: Flyash storage silo	280 tn	8/1/00		
E9: Aggregate/sand weigh batcher	360 tn/hr	8/1/00		
E10: Cement weigh batcher	50 tn/hr	8/1/00		
E11: Erie-Strayer central (wet) mix plant	200 yd^3/hr	8/1/00		
E12: Stephens mixer/transit (dry) mix plant	120 yd^3/hr	8/1/00		
E13: Aggregate/sand transfer conveyor	360 tn/hr	8/1/00		
C1:Stephens, model SOS8000 baghouse central dust collection system	15,000 cfm	8/1/00		

ii. **Standards/Operating Limits**

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

(a) Regulation 2.17, section 5.1, allows the source to set a synthetic limit below the major source threshold. Source requested a combined total plant-wide synthetic limit of less than twenty-five (25) tons in a 12 consecutive month period, for the pollutant PM_{10}.

(b) Regulation 1.14, section 2.1, requires the source to take precautions to prevent particulate matter from becoming airborne beyond the work site.

(c) Construction permit 146-00-C for the ready mix batch plant limits the emissions of the pollutant PM from each batch plant emission point to 2.34 lb/hr.

(d) Construction permit 146-00-C for the ready mix batch plant limits the emissions of the pollutant PM from the batch plant to 20 tons per year.

(e) The PM emissions for cement silos filling, emission points E4 and E6, cement supplement silos filling, emission points E5, E7, and E8, mixer loading, emission point E11, and mix/transit truck loading, emission point E 12, each exceed the PM lb/hr standard uncontrolled. The source is required to operate the dust collection system at all times the emission points are in operation, in order to show compliance with Construction Permit 146-00-C, 2.34 lb/hr PM standard.

2) **Opacity**

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

III. Other Requirements

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

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

3. Emissions Trading: N/A

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

5. Compliance History: There are no violations on record.

6. Calculation Methodology or Other Approved Method:

Concrete Batch Plants (U1): Emission factors from AP-42, Chapter 11.12, Concrete Batching, were used to determine Potential To Emit and confirm limits requested by the source. TAC emissions shall be determined based on lab analysis or the MSDS of the materials used to make the ready mix concrete.

7. Insignificant Activities

Equipment	Quantity	PTE (tpy)	Basis for Exemption
Tanks for storage of lubricating or fuel oils, vapor pressure < 10 mm of Hg @ 26ºC and 760 mm Hg. Includes 8,000 gal diesel fuel tank.	5	0.01 VOC	Reg. 1.02, Appendix A, section 3.9.2
2.5 MMbtu/hr natural gas fueled water heater	1	1.07 NO_x	Reg. 1.02, Appendix A, section 1.1

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.