

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 - Selinda

Plant Location: 1440 Selinda Ave, Louisville, Kentucky 40213

Date Application Received: 15 February 2008
6 March 2014

Date of Draft Permit: 16 January 2015

District Engineer: Bob Wesely **Permit No:** O-0182-14-F

Plant ID: 0182 **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 (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); 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 (SO₂).

Application Type/Permit Activity:

Initial Issuance

Permit Revision

Administrative

Minor

Significant

Permit Renewal

Compliance Summary:

Compliance certification signed

Source is out of compliance

Compliance schedule included

Source is operating in compliance

I. Source Information

1. **Product Description:** IMI South, LLC-Selinda is a central mix (wet) ready mix concrete production facility, consisting of one (1) central mix (wet) ready mix concrete batch plant.
2. **Process Description:** At the central ready mix plant, the dry components of ready mix concrete (cement, flyash, 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 and it is transported to offsite delivery locations.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent to this facility.
4. **Emission Unit Summary:**

Emission Unit	Equipment Description
U1	One (1) Erie-Strayer central mix (wet) ready mix concrete batch plant, model #7265, with two (2) cement silos/bins, two (2) flyash silos/bins, two (2) outside aggregate/sand conveyors in series for loading overhead aggregate/sand bins, and Stephens baghouse, model SOS6100 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.	Issue Date	Public Notice Date	Type	Attachment No./Page No.	Description
Initial	02/__/2015	01/16/2015	Initial	Entire Permit	Initial Issuance

7. **Emission Summary:**

Pollutant	District Calculated Actual Emissions (tn/yr) 2012 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	0	No
NO _x	0.04	No
SO ₂	0.06	No

Pollutant	District Calculated Actual Emissions (tn/yr) 2012 Data	Pollutant that triggered Major Source Status (based on PTE)
PM ₁₀	0.49	Yes
VOC	0.002	No
Total HAPs	0.008	No
Single HAP	0.005	No

8. Applicable Requirements:

- PSD 40 CFR 60 SIP 40 CFR 63
 NSR 40 CFR 61 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-Selinda 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-Selinda 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-Selinda 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-Selinda 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-Selinda is a potential major source for the pollutant PM₁₀. Regulation 2.17 – *Federally 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 PM₁₀ < 25 tn/yr to be a FEDOOP STAR Exempt source 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-Selinda took the total plantwide limit 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 – Central mix (wet) ready mix concrete batch plant

i. Equipment:

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E1: Cement silo #001	100 tn	7/11/03	1.14 2.17 7.08	Regulation 7.08 establishes the requirements for PM emissions from new processes that commence construction after September 1, 1976.
E2: Cement silo #002	100 tn	7/11/03		
E3: Flyash silo #003	100 tn	7/11/03		
E4: Flyash silo #004	100 tn	7/11/03		
E5: Aggregate/sand weigh hopper	412 tn/hr	1973	1.14	Regulation 1.14 requires reasonable measures to prevent particulate particles airborne
E6: Cement/flyash weigh hopper	70.5 tn/hr	1973		
E7: Mixer loading	500 tn/hr	1973		

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E8: Aggregate stockpiles	NA	1973	2.17	beyond the worksite.
E9: Sand stockpiles	NA	1973		
E10: Aggregate/sand handling	NA	1973		
E11: Agg/sand transfer conveyor	412 tn/hr	1973		Regulation 2.17 applies to a source taking a limit to be minor.
E12: Agg/sand bins	412 tn/hr	1973		
E13: Roads & Yard	NA	1973		
E14: Two agg/sand bins loading conveyor	240 tn/hr	1973	6.09	Regulation 6.09 establishes the requirements for PM emissions from processes in existence or having a construction permit issued prior to September 1, 1976.
E15: Agg/sand conveyorloading hoppers (5)	240 tn/hr	1973		
Central dust collection system Stephens, model SOS6100	8,000 cfm	7/11/03		

ii. **Standards/Operating Limits**

1) **PM/PM₁₀**

- (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 PM₁₀.
- (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 264-03-C for the central dust collection system limits the emissions of the pollutant PM from the batch plant to less than 32.52 pounds per hr.
- (d) For emission points with a throughput greater than 30 tn/hr and commenced construction after September 1, 1976:

- (i) The emission standard for PM at each emission point with a process throughput greater than 30 tn/hr is determined in accordance with Regulation 7.08, section 3.1.2 as follows:

$$\text{PM lb/hr limit} = 17.31 (\text{process weight tn/hr})^{0.16}$$

- (ii) The PM emissions for cement silos/bins filling, emission points E1 and E2, exceed the standard uncontrolled. The source is required to operate the dust collection system at all times cement storage silo filling occurs in order to show compliance with the Regulation 7.08 lb/hr PM standard.
- (e) The emission standard for PM at each emission point with a process throughput of less than 30 tn/hr and commenced operation after September 1, 1976, emission points E3 and E4, is determined in accordance with Regulation 7.08, section 3.1.2 as follows:

$$\text{PM lb/hr limit} = 3.59 (\text{process weight tn/hr})^{0.62}$$

- (f) The emission standard for PM at each emission point with a process throughput greater than 30 tn/hr, and in existence or having a construction permit issued prior to September 1, 1976, is determined in accordance with Regulation 6.09, section 3.2 as follows:

$$\text{PM lb/hr limit} = 55 (\text{process weight tn/hr})^{0.11} - 40$$

2) **Opacity**

- (a) Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%, for processes that commenced construction after September 1, 1976.
- (b) Regulation 6.09, section 3.1, establishes an opacity standard of less than 20%, for processes in existence or having a construction permit issued on or before 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:**

Incid. #	Date	Regulation Violated	Settlement
00363	4/7/93	Reg. 1.14, section 2.1, Failure to control fugitive emissions of particulate matter that traveled beyond property boundaries.	Agreement with fine
00812	4/18/94	Reg. 1.14, section 2.1, same	Agreement with fine
00813	4/25/94	Reg. 1.14, section 2.1, same	Agreement with fine

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 @ 26°C and 760 mm Hg. Includes 19,000 gal diesel fuel tank.	4	0.03 VOC	Reg. 1.02, Appendix A, section 3.9.2
3.3 MMbtu/hr natural gas fueled water heater	1	1.42 NO _x	Reg. 1.02, Appendix A, section 1.1
Brazing, soldering or welding equipment	1	0.41 PM	Reg. 1.02, Appendix A, section 3.4
Waste oil heater	1	0.38 SO ₂	Reg. 1.02, section 1.38
Four (4) VOC storage tanks, each with a maximum capacity of 250 gallons or less, for storing engine oil, gear oil, hydraulic oil, and transmission fluid are deleted from the Insignificant Activities list due to their trivial emissions.			

- 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.