



Louisville Metro Air Pollution Control District
 701 West Ormsby Ave
 Louisville, Kentucky 40203-3137



Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-1312-16-F

Plant ID: 1312

Effective Date: XX/XX/2016

Expiration Date: XX/XX/20XX

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: Innovative Crushing & Aggregate, Inc.
 2412 Millers Lane
 Louisville, Kentucky 40216**

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: PM10
 Tons/year: <25

Application No.:	19655	Application Received:	01/03/2011
	62974		03/10/2014
	71850		05/29/2015
	70735		12/07/2012

Permit Writer: Elise Venard

Date of Public Notice: 06/04/2016

{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	39-04-F	3/31/2006	12/4/2005	Initial	Entire Permit	Initial Permit Issuance
NA	O-1312-16-F	XX/XX/2016	06/04/2016	Renewal	Entire Permit	permit renewal and incorporation of construction permits and STAR Exempt Request

Construction Permit History

Permit No.	Issue Date	Description
28767-14-C	7/31/2014	Installation of a Bandit 3680 shingle crusher with 565 hp diesel engine, a Grason 7203P screener, and a Finley 530 conveyor with 35 hp diesel engine.
C-1312-1001-16-F	06/03/2016	Installation of (1) 3-deck screen, electric motor

Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors, published by U.S.EPA</i>
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
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
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 9440-0.
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, PM₁₀, 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; any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA; or any combination of greenhouse gasses whose combined global warming potential equals or exceeds 100,000 tons CO₂-equivalent, as defined in 40 CFR 98). 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

Regulation	Title
1.09	Prohibition of Air Pollution
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
Suite 303
701 West Ormsby Ave
Louisville, KY 40203-3137***

Emission Unit: Plant-wide

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	5.1, 5.2

Plant-wide Specific Conditions

S1. Standards (Regulation 2.17, section 5.1)

a. PM₁₀

- i. The owner or operator shall not allow or cause the plant-wide PM and PM₁₀ emissions to equal or exceed 25 tons during any consecutive 12 month period. (Regulation 2.17, section 5.1)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 the wet dust suppression system at all locations in the crushing operation as necessary to comply with the PM, PM₁₀, and Opacity standards specified in this permit. (2.17, section 5.1)

b. Unit Operation

- i. The owner or operator shall not allow the diesel engines to be located in one place onsite for more than 12 consecutive months. ² (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.

¹ District Potential to of Emit calculations for this facility categorize this site as potentially Major source for PM₁₀. Innovative Crushing and Aggregate, Inc. is currently permitted to operate as a Synthetic Minor Source (FEDOOP) and is STAR-exempt.

²If the engines are located on site at one location for 12 consecutive months at any one time then they are considered stationary and not mobile and the emissions for NOx, CO, SO₂, and VOC count toward the source’s potential to emit for major source determination.

a. **PM₁₀**

- i. The owner or operator shall monthly maintain records that show the quantity (in tons) and type of material processed during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall monthly calculate the PM₁₀ emissions based on the material throughput and emission factors from AP-42, Chapter 11 Section 11.19.2 Crushed Stone Processing and Pulverized Mineral Processing Table 11.19-22 shown below, unless another method is approved in writing by the District:

Source (Emission factors in lb./ton)	Total PM₁₀	E.F. Rating
Tertiary Crushing (uncontrolled) (SCC 3-05-020-03)	0.0024	C
Screening (uncontrolled) (SCC 3-05-020-02)	0.0087	D
Conveyor Transfer Point (uncontrolled) (SCC 3-05-020-06)*	0.00110	E
Aggregate Storage Pile	0.00152	

▪ Use this emission factor for conveyors, hoppers, and feeders

Using the above Emission Factors calculating the tons per month PM₁₀ emissions is as follows:

$$PM_{10}: throughput \left(\frac{tons}{month} \right) \left(Emission\ Factor \frac{lb}{ton} \right) \left(\frac{1\ ton}{2000\ lb} \right) = \frac{tons}{month} \text{ uncontrolled emissions}$$

- iii. The owner or operator shall account for the insignificant activity PM₁₀ emissions from Insignificant Activities when totaling the monthly plant-wide emissions. Since the emissions are minor the owner or operator may use the potential PM₁₀ emissions as the monthly emissions. District approved PM₁₀ PTE for woodworking is 7.17 pound/month. District approved PM₁₀ PTE for the heaters are 107.67 pounds per month.
- iv. The owner or operator shall monthly maintain records that show the plant-wide total PM₁₀ emissions during each calendar month and consecutive 12-month period.
- v. 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. (See Attachment B “Fugitive Dust Control Plan”)
 - 1) For each operating day, the owner or operator shall record current weather conditions which would affect fugitive dust emissions.

- 2) For each operating day, the owner or operator shall record, whether the wet suppression system was in operation.
- vi. The owner or operator shall weekly perform a visual inspection of the structural and mechanical integrity of the water dust suppression system for signs of damage, leakage, corrosion, or other equipment defects and repair as needed.
 - 1) The owner or operator shall maintain weekly records that show the following information for each weekly visual inspection:
 - (a) Date of the inspection;
 - (b) Name of the person that performed the inspection;
 - (c) Description of any equipment defects observed including damages, leakage, corrosion, or other defects that would cause a reduction on the control efficiency;
 - (d) Description of any repairs made or replacement of system components; and
 - (e) A description of all corrective actions taken to abate the deviation; and

b. **Unit Operation**

The owner or operator shall, monthly, maintain records of any change in location of the diesel engines or a declaration that no change in location occurred.

i.

S3. **Reporting** (Regulation 2.17, section 5. 2)

The owner or operator shall submit the following information in the annual compliance report:

a. **PM₁₀**

- i. The owner or operator shall report the monthly PM₁₀ emissions during each calendar month for each month in the reporting period and consecutive 12 month period; and
- ii. The owner or operator shall identify all periods in the reporting period when the process was in operation and the wet dust suppression system was offline in weather conditions that would not contribute to control of the fugitive emissions.
- iii. The owner or operator shall report any deviation from the requirement to conduct the weekly visual inspection of the structural and mechanical integrity of the water dust suppression system for signs of damage, leakage, corrosion, or other equipment defects.

- iv. If no deviations occur during an annual reporting period, the report shall state a negative declaration

b. Unit Operation

The owner or operator shall report any change in location of the diesel engines or a declaration that no change in location occurred.

Plant-wide Comments/Explanations

- 1. The following table summarizes the compliance monitoring methods that will be used to assure ongoing compliance with the terms and conditions of the permit:

Pollutant	Monitoring	Record Keeping	Frequency
PM ₁₀	Emissions	Maintain records that show the plant-wide total PM ₁₀ emissions during each calendar month and consecutive 12-month period	Monthly
	Production rate	Maintain records that show the quantity (in tons) and type of material processed during each calendar month and consecutive 12-month period	Monthly
	Control Performance	Perform visual inspections of the structural and mechanical integrity of the water dust suppression system	Weekly

Emission Unit U1: Processing and Production Equipment**U1 Applicable Regulations:**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
7.08	Standards of Performance for New Process Operations	3.1.1, 3.1.2
40 CFR Part 60, Subpart A	Standards of Performance for New Stationary Sources -- General Provisions	§60.11
40 CFR Part 60, Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing Plants	§60.670, §60.672, §60.674, §60.676

U1 Equipment:

Emission Point	Description	Applicable Regulation	Control ID	Installation Date
Crusher 1 (IA)	Hazmag impact crusher, model APSE/31.5Q, capacity of 300 ton/hour with diesel engine and Seco feeder/hopper.	7.08, 40 CFR Part 60 Subpart OOO	Controls 1 through 4	1995
Crusher 2 (IA)	Lippmann jaw crusher, capacity of 300 ton/hour with electric motor and Diester feeder/hopper.			2004
Crusher 3	Hartl Crushtek (#1) impact crusher, model Supertrack, capacity of 500 ton/hour with diesel engine and attached feeder/hopper			2004
Crusher 4	Hartl Crushtek (#2) impact crusher, model Supertrack, capacity of 500 ton/hour with diesel engine and attached feeder/hopper			2004
Crusher 5	Bandit crusher, model 3680, capacity of 100 ton/hour with diesel engine and attached feeder/hopper			2002
Screen 1	Powerscreen separating screen, capacity of 300 ton/hour with diesel engine and attached feeder/hopper			1995
Screen 2	Tyler separating screen, capacity of 300 ton/hour with electric motor			1995
Screen 3	CEC Roadrunner finishing screen, capacity of 300 ton/hour with diesel engine			1998
Screen 4	Powerscreen finishing screen, capacity of 295 ton/hour with diesel engine			1998
Screen 5 (IA)	Grason separating screen, model 7203-P, capacity of 50 ton/hour with electric motor			2002
Screen 6	The Red screen separating screen, model 7x20, 3-deck, capacity of 300 ton/hour with electric motor			2012
Conveyor 1 (IA)	Turbo Chieftain, conveyor, capacity of 250 ton/hour with diesel engine			1998

Emission Point	Description	Applicable Regulation	Control ID	Installation Date
Conveyor 2 (IA)	Terex 65-ft. radial stacking conveyor, capacity of 250 ton/hour with diesel engine	7.08, 40 CFR Part 60 Subpart OOO	Controls 1 through 4	1998
Conveyor 3 (IA)	Screen Machine, model TH-80, conveyor, capacity of 300 ton/hour with diesel engine			2014
Conveyor 4 (IA)	Grayson, side discharge conveyor, capacity of 50 ton/hour with electric motor			1998
Conveyor 5 (IA)	Grayson, side-feed conveyor, capacity of 100 ton/hour with electric motor			1998
Conveyor 6 (IA)	Grayson, radial stacking conveyor, capacity of 100 ton/hour with electric motor			1998
Conveyor 7 (IA)	Grayson, radial stacking conveyor, capacity of 250 ton/hour with electric motor			1998
Conveyor 8 (IA)	Berkshire-Allied, conveyor, capacity of 150 ton/hour with electric motor			1998
Conveyor 9 (IA)	M-100, conveyor, capacity of 250 ton/hour with electric motor			1998
Conveyor 10 (IA)	Grayson, "Side Discharge Package" conveyor, capacity of 300 ton/hour with electric motor			2014
Conveyor 11 (IA)	Grayson, 75-ft., radial stacking conveyor, capacity of 300 ton/hour with electric motor			2014
Conveyor 12 (IA)	Finley, model 530, conveyor, capacity of 50 ton/hour with diesel engine			1998

U1 Control Devices:

Control ID	Description	Control Efficiency	Performance Indicator
Control 1	Centrally installed, electrically operated, sprinkler system, 6,000-gallon tank capacity	50%	NA
Control 2	Water truck with sprinklers, 1,500-gallon tank capacity		
Control 3	Raised perimeter berm, 10-ft high		
Control 4	Skid-steer loader with hydraulic sweeper attachment & water		

U1 Specific Conditions

S1. Standards (Regulation 2.17, section 5.1)

a. PM/PM₁₀

- i. The owner or operator shall not cause or allow the emissions of particulate matter to exceed the following limits: (Regulation 7.08, section 3.1.2)

Emission Point ID	Equipment	Design Capacity (ton/hr.)	PM Limit (lb/hr)
Crusher 1	Hazmag impact crusher with diesel engine	300	41.48
Crusher 2	Lippmann jaw crusher	300	41.48
Crusher 3	Hartl Crushtek (#1) impact crusher with diesel engine	500	46.79
Crusher 4	Hartl Crushtek (#2) impact crusher with diesel engine	500	46.79
Crusher 5	Bandit crusher with diesel engine	100	36.17
Screen 1	Powerscreen separating screen with diesel engine	300	41.48
Screen 2	Tyler separating screen	300	41.48
Screen 3	CEC Roadrunner finishing screen with diesel engine	300	41.48
Screen 4	Powerscreen finishing screen with diesel engine	295	41.40
Screen 5	Grason separating screen	50	32.37
Screen 6	The Red screen separating screen	300	41.48
Conveyor 1	Turbo Chieftain conveyor with diesel engine	250	40.16
Conveyor 2	Terex conveyor with diesel engine	250	40.16
Conveyor 3	Screen Machine conveyor with diesel engine	300	41.48
Conveyor 4	Grayson, side discharge conveyor	50	32.37
Conveyor 5	Grayson, side-feed conveyor	100	36.17
Conveyor 6	Grayson, radial stacking conveyor	100	36.17
Conveyor 7	Grayson, radial stacking conveyor	250	40.15
Conveyor 8	Berkshire-Allied, conveyor	150	37.50
Conveyor 9	M-100, conveyor	250	40.16
Conveyor 10	Grayson, "Side Discharge Package" conveyor	300	41.48
Conveyor 11	Grayson, 75-ft., radial stacking conveyor	300	41.48
Conveyor 12	Finley, model 530, conveyor, capacity of 50 ton/hour with diesel engine	50	32.37

- ii. For additional PM₁₀ Standards see Emission Unit Plant-wide.

b. Opacity

- i. The owner or operator shall not allow or cause the visible emissions to exceed 15 percent opacity from each crusher.³ (40 CFR 60.672(b), Table 3)
- ii. The owner or operator shall not allow or cause the visible emissions to exceed 7% opacity from Screen 6, Conveyor 10, Conveyor 11, and 12. Opacity shall not exceed 10% from the other equipment associated with this emission unit. (40 CFR 60.672(b), Table 3)
- iii. The owner or operator shall not allow or cause the visible emissions to exceed 20 percent opacity. (Regulation 7.08, section 3.3.1)
- iv. The owner or operator shall not allow or cause the visible emissions to exceed 10 percent opacity from any other affected facility. Affected facilities include grinding mills, screening operations, bagging operations, bucket elevators, conveyors, storage bins, and enclosed truck or railcar loading station. (40 CFR 60.672(b), Table 3)

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/PM₁₀

- i. There are no monitoring or record keeping requirements related to the lb/hr emission standard for this emission unit⁴.
- ii. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. (40 CFR 60.674(b))
- iii. The owner or operator shall monthly maintain records of each periodic inspection required under 40 CFR 60.674(b). The records shall include the

³ The requirements of this subpart, 60.672(b), apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

⁴ Calculations for potential to emit for the crushers, conveyors, feeders/hoppers and screens have determined that the equipment cannot exceed the lb/hr standard, therefore no monitoring or record keeping are required.

date of each inspection and any corrective action taken. (40 CFR 60.676(b)(1))

- iv. For the Bandit crusher (Crusher 5) the owner or operator shall monitor and record when the unit is processing non-metallic minerals.
- v. For additional PM₁₀ Monitoring and Record Keeping see Emission Unit Plant-wide.

b. Opacity

- i. The owner or operator shall weekly conduct a one-minute visible emissions survey, during normal operation, of all the emission points. No more than four emission points shall be observed simultaneously.
- 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, weekly, 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 week, 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)

The owner or operator shall submit annual compliance reports that include the information in this section.

a. PM/PM₁₀

- i. There are no reporting requirements related to the lb/hr emission standard for this equipment.
- ii. The owner or operator shall report any deviation from the requirement to conduct the monthly periodic inspection of proper water flow to the discharge sprays nozzles in the wet suppression system.
- iii. If no deviations occur during an annual reporting period, the report shall state a negative declaration.

- iv. The owner or operator shall report any deviation from recording all times when the Bandit crusher (Crusher 5) was processing non-metallic minerals.
- v. For additional PM₁₀ Reporting requirements see Emission Unit Plant-wide.

b. Opacity

- i. The owner or operator shall report any deviation from the requirement to perform weekly visible emission surveys or Method 9 tests;
- ii. The owner or operator shall report any deviation from the requirement to record the results of each VE survey and Method 9 test performed;
- iii. The owner or operator shall report the number, date, and time of each VE Survey where visible emissions were observed beyond the opacity standard and the results of the Method 9 test performed;
- iv. The owner or operator shall identify all periods of exceedance of the opacity standard; and
- v. The owner or operator shall provide a description of any corrective actions taken for each exceedance of the opacity standard; and
- vi. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period for opacity.

U1 Comments/Explanations

1. All production and processing equipment at this facility falls under Regulation 40 CFR Part 60, Subpart OOO “Standards of Performance for Nonmetallic Mineral Processing Plants” as defined in §60.670 when processing nonmetallic minerals, if they are processing metallic minerals then this regulation does not apply.
2. The following table summarizes the compliance monitoring methods that will be used to assure ongoing compliance with the terms and conditions of the permit:

Pollutant	Monitoring	Record Keeping	Frequency
PM	Performance	Maintain records monthly, of the periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system	Monthly

Pollutant	Monitoring	Record Keeping	Frequency
Opacity	Emissions	Maintain records, monthly, of the results of all visible emissions surveys and tests	Weekly

Insignificant Activities

Emission Process	Equipment Description	Quantity	Applicable Regulation	PTE (tpy)	Regulation Basis
Crusher 1	Hazmag model APSE/31.5Q, impact crusher (300 tph) diesel engine (350 hp) and Seco feeder/hopper (300 tph)	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 3.1	Regulation 1.02
Crusher 2	Lippmann jaw crusher (300 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 3.1	Regulation 1.02
Screen 5	Grason model 7203-P screen (50 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 0.01	Regulation 1.02
Conveyor 1	Grayson side discharge conveyor (50 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 0.24	Regulation 1.02
Conveyor 2	Grayson side-feed conveyor (100 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 0.48	Regulation 1.02
Conveyor 3	Grayson radial stacking conveyor (100 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 0.48	Regulation 1.02
Conveyor 4	Grayson side discharge conveyor (50 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 0.66	Regulation 1.02
Conveyor 5	Grayson side-feed conveyor (100 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 1.31	Regulation 1.02
Conveyor 6	Grayson radial stacking conveyor (100 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 1.31	Regulation 1.02
Conveyor 7	Grayson radial stacking conveyor (250 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 3.5	Regulation 1.02
Conveyor 8	Berkshire-Allied conveyor (150 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 1.97	Regulation 1.02

Emission Process	Equipment Description	Quantity	Applicable Regulation	PTE (tpy)	Regulation Basis
Conveyor 9	M-100 conveyor (250 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 3.29	Regulation 1.02
Conveyor 10	Grayson "Side Discharge Package" conveyor (300 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 3.94	Regulation 1.02
Conveyor 11	Grayson 75-ft. radial stacking conveyor (300 tph) with electric motor	1	7.08, 40 CFR Part 60, Subpart OOO	PM ₁₀ = 3.94	Regulation 1.02
Conveyor 12	Finley, model 530, conveyor (50 tph) with diesel engine (35 hp)	1	7.08, 40 CFR Part 60, Subpart OOO,	PM ₁₀ = 0.48	Regulation 1.02
Woodworking	Woodworking table saw, chop saw, saw drill press, electric operated	1	7.08	PM ₁₀ = 0.04	Regulation 1.02
Storage	Aggregate storage pile (4000 ton)	1	7.08	PM ₁₀ = 0.05	Regulation 1.02
Tanks	Diesel fuel tank (500-gallon)	2	NA	VOC = 0.01	Regulation 1.02, Appendix A
Water heater	Water heater, natural gas, < 10 MMBtu, direct fire	1	NA	NO _x = 4.25 PM ₁₀ = 0.32	Regulation 1.02, Appendix A
Area heater	Area heater, natural gas, < 10 MMBtu/hr., direct fire	1	NA	NO _x = 4.25 PM ₁₀ = 0.32	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 1.A.-1: Processing and Production Equipment not subject to NSPS or MACT**I.A.-1 Equipment**

Emission Process	Description	Applicable Regulation	Installation Date
Woodworking	Woodworking table saw, chop saw, saw drill press, electric motors	7.08	NA
Storage	Aggregate storage pile, capacity of 4000-tons	7.08	NA

I.A.-1 Specific Conditions**S1. Standards** (Regulation 2.17, section 5. 1)**a. PM/PM₁₀**

- i. The owner or operator shall not cause or allow the emissions of particulate matter to exceed 2.34 lb/hr.⁵ (Regulation 7.08)
- ii. For additional PM₁₀ Standards see Emission Unit Plant-wide.

b. Opacity

The owner or operator shall not allow or cause the visible emissions to exceed 20 percent opacity⁶. (Regulation 7.08)

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/PM₁₀

- i. There are no Monitoring or Record Keeping requirements for this equipment.
- ii. For additional PM₁₀ Monitoring and Record Keeping see Emission Unit Plant-wide.

b. Opacity

There are no Opacity Monitoring or Record Keeping requirements for this equipment.

S3. Reporting (Regulation 2.17, section 5.2)**a. PM/PM₁₀**

- i. There are no PM Reporting requirements for this equipment.
- ii. For additional PM₁₀ Reporting requirements see Emission Unit Plant-wide.

⁵ The District has determined that this unit cannot exceed the lb/hr PM emission limit uncontrolled.

⁶ The District has determined that this unit is classified as an Insignificant Activity and as such should not cause any Opacity issues.

b. **Opacity**

There are no Opacity Reporting requirements for this equipment.

Fee Comment

On May 15, 2013, the Board approved revisions to Regulation 2.08, which implemented a new fee structure. As a result, Innovative Crushing & Aggregate, Inc. will be required to pay annual fees.

Attachment A - 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 B – Dust Control Plan

FUGITIVE DUST CONTROL PLAN⁷

**Innovative Crushing & Aggregate, Inc.
2412 Millers Lane
Louisville, Kentucky**

Introduction

This Fugitive Dust Control Plan has been prepared to comply with the requirements of Regulation 1.14 of the Louisville Metro Air Pollution Control District (APCD) for the Innovative Crushing & Aggregate facility located at 2412 Millers Lane.

Administration of Plan

The Office Manager and the Yard supervisor are responsible for implementing dust control procedures. The Yard supervisor will assess the site daily for needed dust control. He will be onsite to implement the plan. The Office Manager Adam Storey will be onsite for the District to contact. Copies of the Fugitive Dust Control Plan are on file at the facility for use by personnel and have been submitted to the APCD for review.

Office Manager: Adam Storey	Contact Number: (502) 776-3507
Yard Supervisor: Miguel Hidalgo	Contact Number: (502) 776-5985
Office Manager after hours: Adam Storey	Contact Number: (502) 639-5525

Description of Facility

Innovative Crushing & Aggregate, Inc.'s Louisville, Kentucky branch is located at 2412 Millers Lane in Shively. Operating hours are 7:30 to 4:30 Monday through Friday. Recyclable materials such as concrete or asphalt debris are shipped to our facility via truck and are accepted from the general public. The materials are then processed into usable aggregate or fill. Truck traffic at this plant varies from 0 to around 40 per day. Dust control is adjusted accordingly. There is a plant-wide speed limit of 10 mph as posted at the entrance and trucks are restricted to the roads leading to dump or load material.

Dust Control Measures

The following measures will be used to control dust at the Innovative Crushing & Aggregate site:

1. Water Truck

⁷ The dust control plan was approved by the District on 11/21/2012.

Innovative Crushing & Aggregate, Inc. utilizes a 1500-gallon water truck to keep the roadways and open areas within the facility wet in order to control dust.

When needed, a water truck will be utilized to wet the plant areas to prevent fugitive dust emissions from forming. The water truck will not be used when the ambient air temperature falls below freezing and may be suspended when weather conditions contribute to the control of fugitive dust emissions (i.e. periods of rainfall) in these areas.

2. Permanent Sprinklers

Innovative Crushing & Aggregate, Inc. has permanent sprinkler stations along the main traffic area which draw water out of a 6000-gallon tank and operate via electronic switch inside the scalehouse. These sprinklers are easily turned on and off to reflect dust conditions.

The permanent sprinklers are used during periods of dry weather and keep the road moist along its entire length to prevent fugitive dust emissions from truck traffic. The permanent sprinkler system will be disabled when the ambient air temperature falls below freezing. If the weather conditions contribute to the control of fugitive dust emissions (i.e. during periods of rainfall), the permanent sprinkler operation may be suspended until it is determined that fugitive dust emissions control is again needed.

3. Moveable Sprinklers

Innovative Crushing & Aggregate, Inc. has moveable sprinklers located throughout the yard which are turned on and off to reflect dust conditions.

The moveable sprinkler system is used during periods of dry weather and keeps targeted areas moist to prevent fugitive dust emissions. The moveable sprinkler system will be disabled when the ambient air temperature falls below freezing. If the weather conditions contribute to the control of fugitive dust emissions (i.e. during periods of rainfall), the moveable sprinkler operation may be suspended until it is determined that fugitive dust emissions control is again needed.

4. Raised Barrier

Innovative Crushing & Aggregate, Inc. has installed a 10-foot high raised berm of material located on the eastern edge of the property in order to contain dust. This berm will prevent any fugitive dust from leaving the lot.

5. Hydraulic Sweeper

Innovative Crushing & Aggregate, Inc. has a hydraulic sweeper attachment on a skid-steer loader which is used to clean and sweep the entrance/exit of the facility as needed. Water will be used prior to running the sweeper or while running the sweeper if needed.

This hydraulic sweeper is subject to the restrictions of not being used when ambient temperatures are below freezing or when wet weather contributes to the control of fugitive dust emissions road traffic.