



**CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH
AIR MANAGEMENT SERVICES**

PLAN APPROVAL

Plan Approval Permit No: IP16-000291
Plant ID: T0060

Date: January 30, 2019

Owner: Britton Industries, Inc
Address: 1 East M -Y Lane
Morrisville, PA 19067

Source: Britton Industries, Inc
Location: 8901 Torresdale Ave
Philadelphia, PA 19136

Attention: Mr. Dan Carr
Telephone: (215) 295-3333
E-mail: Dcarr@brittonindustries.com

Pursuant to the provisions of Title 3 of the Philadelphia Code, the Air Management Code of February 17, 1995, as amended, and after due consideration of a plan approval application received under the rules and regulations of the Philadelphia Air Pollution Control Board, the City of Philadelphia, Department of Public Health, Air Management Services (AMS) on January 30, 2019 approved plans for the installation and temporary operation of the air contamination device(s) described below:

Facility wide fugitive dust emissions from concrete crushing. The property is a commercial concrete processing center.

Source Description Process	Rated Capacity or Max Process Rate	Type of fuel or material Processed
Portable Screener No.1 with an Associated Non-road Internal Combustion Engine. Engine Manufacturer. Perkins Engine Model No. C4-4 Engine Serial No: 44806882 Engine Year:2014	Engine:110 horsepower (HP) Screener: 20 tons/hr	Engine: Diesel
Portable Screener No. 2 on Tracks with an Associated Non-road Internal Combustion Engine. Engine Manufacturer. Caterpillar Engine Model No. C7-1 Engine Serial No: 77001032 Engine Year: 2014	Engine: 151 HP Screener: 28 tons/hr	Engine: Diesel
Portable Concrete Crusher on Tracks with an Associated Non-road Internal Combustion Engine. Engine Manufacturer. Caterpillar Engine Model No. C9-3 Engine Serial No:C9N01200	Engine: 350 HP Crusher: 39 tons/hr	Engine: Diesel Crusher:

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Engine Year: 2013		Concrete
Portable Jaw Crusher on Tracks (concrete crusher) with an Associated Non-road Internal Combustion Engine. Engine Manufacturer: Caterpillar Engine Model No. C9-3 Engine Serial No: REH05077 Engine Year: 2015	Engine: 275 HP Crusher: 39 tons/hr	Engine: Diesel Crusher: Concrete
Water Suppression System /Spray Bars		

This Plan Approval expires on July 30, 2021. If construction has not been completed by this date, an application for either an extension or new plan approval must be made. The conditions of this plan approval will remain in effect until they are incorporated in an operating permit.

This Plan Approval is subject to conditions prescribed in the attachment.



Edward Wiener
Chief of Source Registration
(215) 685-9426

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Facility

1. The Permittee shall install, operate, and maintain each process or unit in the facility in accordance with the manufacturer's specifications and the specifications in the application (as approved herein).
2. The Permittee may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following: [25 Pa Code §123.41]
 - (a) Equal to or greater than 20% for a period or periods aggregating more than three (3) minutes in any one hour.
 - (b) Equal to or greater than 60% at any time.
3. The Permittee shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions include the following: [25 Pa Code §123.1(a)(9) and (c)].
 - (a) Interior roadways running through the facility should be suitably treated to minimize fugitive dust. Tires of trucks leaving the property shall be washed with water to avoid dirt being carried outside.
 - (b) The crushed concrete stockpiles shall be managed to minimize fugitive emissions either by applying a water spray or by covering the crushed concrete stockpiles.
4. The Permittee may not permit fugitive particulate matter to be emitted from any source into the outdoor atmosphere if the emissions are visible at the point the emissions pass outside the person's property. [25 Pa Code §123.2]
5. The Permittee shall not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source, in such a manner that the malodors are detectable outside the property. [25 Pa Code §123.31(b)]
6. The Permittee shall not cause or permit the handling, transporting, storing or disposing of any substance or material which is likely to be scattered by the wind, or is susceptible to being wind-borne, without taking effective precautions or measures to prevent air contamination. Permittee shall not operate or maintain, or allow or cause to be operated or maintained, any premises, open area, right of way, storage piles, or vehicle, or any construction, alterations, demolition, or wrecking operation, or any other enterprises, which involves any material or substance likely to be scattered by the wind, or susceptible to being wind-borne, without effective precautions or measures to prevent air contamination. Permittee shall not maintain, conduct, or use, or cause to be maintained, conducted, or used, any parking lot, or similar areas, unless the lot, area, or roadway is maintained in such manner as to prevent air contamination. [Air Management Regulation (AMR) II, Section VIII]
7. All reasonable actions shall be taken to prevent particulate matter that may arise from stockpiling or use of roads from becoming airborne fugitive emissions shall not cross the owner or operator's property line at any time. [25 Pa. Code 25 § 123.1(a), 25 Pa. Code § 123.1(c), and 25 Pa. Code § 123.2]
8. Water spray dust suppression systems shall be operated during crushing. Operation without simultaneous operation of the water spray dust suppression system can take

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place only in those unusual instances where processed materials contain sufficient moisture so as not to create air contaminant emissions in excess of the limitations and standards of this permit. If, however, the water spray dust suppression system is incapable of operation due to weather conditions or any other reason, the Permittee may not operate the plant. A pressure gauge will be installed to indicate a normal operation of the dust suppression system. The Permittee shall record the water pressure for each crusher daily during operation [Application, assures compliance with 25 Pa Code §§127.1]

9. The Permittee shall comply with the following limitations and requirements: [25 Pa Code §127.1]
 - (a) The drop heights from front-end loaders being used to stockpile, transfer, and load aggregate shall be kept as short as possible to minimize dust emissions.
 - (b) Stockpiles shall be kept as compact as possible to limit exposure to the wind. Material shall be stockpiled in such a manner that it may be adequately wetted as necessary to control fugitive emissions.
 - (c) All in-plant roads shall be maintained to prevent particulate matter from becoming airborne in accordance with 25 Pa. Code §§ 123.1 and 123.2.
 - (d) All unpaved in-plant roads shall be watered once per day during warm weather, at the start of each shift, if no precipitation has fallen within the previous twenty four (24) hours, and as needed thereafter on a preventative basis such that visible fugitive emissions are controlled in accordance with 25 Pa. Code §§ 123.1 and 123.2. Other methods of dust control may be used when weather conditions make the watering of unpaved roads hazardous.
 - (e) The owner or operator shall promptly remove earth or other material from paved roads onto which earth or other material has been transported by trucking or earth moving equipment, or other means. [25 Pa. Code § 123.1(c)]
 - (f) A set vehicle pattern shall be established and maintained for vehicles entering and exiting the plant.
 - (g) The owner or operator shall post a sign limiting speeds to less than 15 mph on all in-plant roads.
 - (h) The owner or operator shall post and enforce a requirement stating "All vehicles entering or exiting the plant property shall be properly tarpaulin covered." Vehicles with a gross vehicle weight rating of less than 10,000 pounds shall be exempt from this condition.
 - (i) Speed limit signs shall be posted consistent with the requirements of the Pennsylvania Department of Transportation (overall dimension 20 inches x 24 inches, "SPEED LIMIT" in 4-inch letters and 10-inch numerals).
10. The Permittee shall operate in accordance with an AMS-approved Fugitive Dust Control Plan.
11. The Permittee shall cease all mulch production, storage of mulch precursors, and storage of finished mulch and mulch intermediates at the facility as soon as practical, but by no later than **August 1, 2018**. All related equipment and materials, including but not limited to:
 - Primary Tub Grinder
 - Secondary Grinding Mill
 - Horizontal Grinding Mill

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- Under Conveyor
- Radial Conveyor
- Surge Hopper
- Dye Drum Conveyor
- Dye Drum
- Secondary Mill Conveyor
- Inline Conveyor
- Radial Stacking Conveyor

shall be rendered inoperable by August 1, 2018 and removed from the facility as soon as practical.

12. The owner or operator shall perform monitoring of the facility during operation for the presence of visible emissions. A Method 9 reading is not required for the evaluation of visible emissions. The owner or operator shall take immediate corrective action for any visible emission that is not in compliance with Condition 4.
13. The Permittee shall monitor and keep records of the following :
 - (a) Records of reasonable actions taken to demonstrate compliance with Condition 4. Corrective action taken to control visible emissions and malodors to demonstrate compliance with Condition 5, 6, and 7.
 - (b) Daily pressure gauge readings when the water spray is in operation to demonstrate compliance with Condition 8.
 - (c) The date all mulch-related equipment and stockpiles are removed from the facility to demonstrate compliance with Condition 11.

Crushing Processes

14. Each crusher and screener shall not operate for more than 720 hours per rolling 12 month period. [Application]
15. The Jaw Crusher, and Concrete Crusher, process rates each shall not exceed 39 tons per hour. [Application]
16. The Jaw Crusher and the Concrete Crusher shall only crush concrete. Crushing is limited to non-asbestos containing material as defined by the City of Philadelphia Asbestos Control Regulation.
17. The Permittee shall comply with an AMS-approved Asbestos Inspection and Sampling Plan. If the concrete contains suspect asbestos containing material, the Permittee shall comply with the following:
 - (a) The Permittee shall not process any building construction or demolition materials in the concrete crusher prior to obtaining an Asbestos Inspection Report (AIR) or test data from the generator of the material showing that the material does not contain asbestos. If the generator of the material is not able to provide an AIR or test data, the material will not be accepted at the facility and will not be processed.
18. The Permittee shall monitor and keep records of the following :
 - (a) For each screener, and crusher, daily operating hours, total monthly operating hours, and 12 month rolling operating hours to demonstrate compliance with Condition 23.
 - (b) Crushing rate per hour for each crusher to demonstrate compliance with Condition 15.
 - (c) For the Jaw Crusher and Concrete Crusher, type material crushed to

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demonstrate compliance with Condition 16.

- (d) For the Jaw Crusher and Concrete Crusher, the Permittee shall keep records of the AIR or analytical test results for asbestos provided by the generator of the material.
- (e) For the Jaw Crusher, and Concrete Crusher, the water pressure daily during operation.

Diesel Engines (Portable Screener No.1 Engine, Portable Screener No. 2 Engine, Portable Concrete Crusher Engine, Portable Jaw Crusher Engine

- 19. Carbon Monoxide (CO) emissions from each diesel engine shall not exceed 1% by volume of exhaust gases. [AMR VIII]
- 20. Particulate Matter emissions from each diesel engine shall not exceed 0.04 grain per dry standard cubic foot. [25 Pa Code §123.13(c)(1)(i)]
- 21. In addition to the emission requirements of Conditions 19 and 20, emissions from Portable Screener No.1 and No.2 engines shall not exceed any of the following emission limits below;
 - (a) NMHC emissions from each diesel engine shall not exceed 0.19 grams/kilowatt-hour (g/kW-hr). [Tier 4 Engine]
 - (b) Carbon Monoxide emissions from each engine shall not exceed 5.0 g/kW-hr. [Tier 4 Engine]
 - (c) Particulate Matter (PM) emissions from each engine shall not exceed 0.02 g/kW-hr. [Tier 4 Engine]
 - (d) Nitrogen Oxides (NOx) emissions from each engine shall not exceed 0.40 grams/kilowatt-hour (g/kW-hr). [Tier 4 Engine]
- 22. In addition to the emission requirements of Conditions 19 & 20, emissions from the Concrete Crusher and Jaw Crusher engines shall not exceed any of the following emission limits below;
 - (a) NMHC emissions from each engine shall not exceed 0.19 grams/kilowatt-hour (g/kW-hr). [Tier 4 Engine]
 - (b) Carbon Monoxide emissions from each engine shall not exceed 3.5 g/kW-hr. [Tier 4 Engine]
 - (c) Particulate Matter (PM) emissions from each engine shall not exceed 0.02 g/kW-hr. [Tier 4 Engine]
 - (d) Nitrogen Oxides (NOx) emissions from each engine shall not exceed 0.40 grams/kilowatt-hour (g/kW-hr). [Tier 4 Engine]
- 23. Each diesel engine shall not operate for more than 720 hours per rolling 12 month period. [Application]
- 24. Each engine shall only burn diesel fuel oil. The diesel fuel shall meet the following requirements: [40 CFR 60.4207(b), 40 CFR 80.510(b)]
 - (a) The maximum sulfur content of the fuel shall be 15 part per million (ppm) [Assures compliance with AMR II, Sections & III]
 - (b) The minimum cetane index shall be 40 or maximum aromatic content of 35 volume percent.
- 25. Sound levels produced by each engine shall not exceed the following:
 - (a) 5 decibels above background level measured at the property boundary of the nearest occupied residential property: or

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- (b) 10 decibels above background level measured at the property boundary of the nearest occupied non-residential property
[Philadelphia Code Chapter 10-400 (Noise and Excessive Vibration) §10-403(3)]
- 26. Vibration levels shall not exceed 0.15 inches per second beyond any source property boundary. [Philadelphia Code Title 10 Chapter 10-400]
- 27. The Permittee shall monitor and keep records of the following:
 - (a) Manufacturer's specifications and certificate of conformity or stack test data to assure compliance with Conditions 21, and 22.
 - (b) For each diesel engine, daily operating hours and operating hours per rolling 12 month period, calculated monthly to demonstrate compliance with Condition 23.
 - (c) For each diesel engine, type of fuel burned, monthly fuel usage, fuel manifests documenting the sulfur content of fuel oil to demonstrate compliance with Condition 24.

Operating Permit and Inspection and Entry Requirements

- 28. Within 30 days of the Plan Approval issuance date the facility shall submit a Natural Minor Operating Permit application.
- 29. All records shall be kept for five (5) years and be produced upon request by Air Management Services.
- 30. Inspection and Entry [25 Pa Code §127.441, 35 P.S. §4008 and Phila. Code §3-304];
 - (a) Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow AMS or authorized representatives of AMS to perform the following:
 - (1) Enter at reasonable times upon the Permittee's premises where a operating permit facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - (2) Have access to and copy, at reasonable times any records that must be kept under the conditions of this permit;
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - (4) Sample or monitor at reasonable time, any substances or parameters at any location, during operating hours, for the purpose of assuring permit compliance or as otherwise authorized by the Clean Air Act, the Air Pollution Control Act, the Philadelphia Air Management Code, and the regulations promulgated thereunder.
 - (b) Pursuant to 35 P.S. §4008, no person shall hinder, obstruct, prevent, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
 - (c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee in accordance with Section 114 or other applicable provision of the Clean Air Act.

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(Alternate Site Specific Fugitive Dust Control Plan proposed by Britton Industries)

Britton Industries, Inc.
Fugitive Dust Control Plan
January 30, 2019

Britton shall implement the following requirements to minimize fugitive dust and control odors at the facility:

1. As per Condition 3(b) of the plan approval, interior roadways running through the facility should be suitably treated to minimize fugitive dust. Tires of trucks leaving the property shall be washed with water to avoid dirt being carried outside. The Permittee shall flush or run sweeper trucks (wet method); either spray nozzles, or wheel washer may be used to prevent or mitigate dust emissions from roads or other AMS approved plan. The crushed concrete stockpiles shall be managed to minimize fugitive emissions either by applying a water spray or by covering the crushed concrete stockpiles.
2. Britton shall maintain a mesh-covered fence around the facility's perimeter to prevent fugitive dust emissions from leaving the property.
3. Britton shall not operate either crusher during any periods when the wind speed would cause dispersal of concrete.
4. The Permittee should take precaution on the storage, processing activities, cause no adverse impacts on the public health, welfare, safety and the environment, and that potential nuisances or nuisances include dust, odors, noise, and traffic hazard.

Approved by Air Management Services on January 30, 2019.



Edward Wiener
Chief of Source Registration
(215) 685-9426