

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

CHAPTER 2 TECHNICAL MEMORANDUM

TO: File

THROUGH: Stephen S. Ours, P.E. *SSO*
Chief, Permitting Branch

FROM: Abraham T. Hagos *ATH*
Environmental Engineer

SUBJECT: **Permit Nos. 7253, 7254, 7255, and 7256 to Construct and Operate Two Portable Crushers and Two Portable Screeners at Montana Avenue Land Development, 1933 Montana Avenue NE**

DATE: May 29, 2019

BACKGROUND INFORMATION

A permit application package from Strittmatter Metro, LLC to construct and operate two crushers and two screeners at 1933 Montana Avenue NE, was received by the Air Quality Division (AQD) on March 26, 2019. The crushers and screeners are needed to process demolition debris (primarily concrete) imported from off-site as well as, potentially, some materials originating from the site. The site is an open area being prepared for development (a project known as the “New City” development), but Strittmatter proposes to use the site in the interim period until construction actually begins, which could be several years, at least for portions of the site. The proposed permit will allow processing of imported off-site materials.

The crushing and screening units are described in more detail in the table below.

Equipment ID	Equipment Type	Equipment Description
6520	Impact Crusher	Screen Machine Industries Model 4043T impact crusher with serial number AE2904, powered by a Caterpillar Model C9 ACERT 376 hp diesel engine
6525	Jaw Crusher	Powerscreen PremierTrak R400X jaw crusher with serial number AOMH44129, powered by a Scania Model DC09 275 hp diesel engine
6526	Screener	Screen Machine Industries Model Spyder 516T screener with serial number AG3094, powered by a Cummins Model QSB4.5 110 hp diesel engine
6529	Screener	Powerscreen Warrior 1800 screener with serial number LDG62554, powered by a Caterpillar Model C4.4 ATAC 110 hp diesel engine

CHAPTER 2 TECHNICAL MEMORANDUM

Strittmatter Metro, LLC

Permit Nos. 7253, 7254, 7255 and 7256 to Construct and Operate Portable Crushers and Screeners at the Montana Avenue Land Development Area Located at 1933 Montana Avenue NE

May 29, 2019

Page 2

The permit action will be published in the DC Register and on DOEE's website on June 7, 2019. Public comments for the permit action will be solicited through July 9, 2019. Additionally, a public hearing on this subject is being scheduled on July 9, 2019.

Strittmatter Metro LLC has not requested that any of the materials submitted with this application be held confidential.

Emissions Evaluation:

The applicant has requested that certain limitations on the ability of the equipment be established in the permits to limit the potential of the equipment to emit air pollutants. In particular, the applicant has requested a condition that limits operations to only one crusher and one screener at any time. Additionally, the applicant has requested limits to operate only six days per week (Monday through Saturday) and only eight hours per day (7:00 AM to 3:00 PM).

The maximum emissions for all the units covered by these permits, in aggregate, would be as follows:

Pollutant	Maximum Emissions without Operational Limits (tons per year)[†]	Potential to Emit with Operational Limits (tons per year)
Coarse Particulate Matter (PM10)	12.18	2.59
Oxides of Sulfur (SO _x)	7.82	1.24
Oxides of Nitrogen (NO _x)	17.54	3.86
Volatile Organic Compounds (VOC)	3.85	1.08
Carbon Monoxide (CO)	11.84	2.67

[†] The applicant will not be permitted to operate at this level, but these data are used for evaluating whether 20 DCMR 204 would have been applicable without operational limits. See the regulatory review discussion below.

REGULATORY REVIEW

20 DCMR Chapter 2, Section 200: General Permit Requirements

A crushing and screening operation is a potential air pollution source for particulate matter. Thus a Chapter 2 permit is required, both for construction and for operation of this type of unit.

20 DCMR Chapter 2, Section 201: General Requirements for Permit Issuance

Pursuant to this section, several permit conditions have been included in the permits to ensure that operation of the equipment is protective of public health and welfare. These limits include the aforementioned limits on operations (operate only one crusher and one screener at a time; only operate equipment between 7:00 AM and 3:00 PM, Monday through Friday). They also

CHAPTER 2 TECHNICAL MEMORANDUM

Strittmatter Metro, LLC

Permit Nos. 7253, 7254, 7255 and 7256 to Construct and Operate Portable Crushers and Screeners at the Montana Avenue Land Development Area Located at 1933 Montana Avenue NE

May 29, 2019

Page 3

include the requirement to install and operate wet method dust control devices (water sprays) to minimize dust emissions, limitations on importation of off-site materials for processing, a requirement to use only ultra-low sulfur diesel fuel, and a requirement to operate and maintain the equipment in accordance with manufacturers' recommendations.

20 DCMR Chapter 2, Section 204: Permit Requirements for Major Sources Located in Non-Attainment Areas (New Source Review)

Non-Attainment New Source Review (NNSR) is not applicable to these units. The equipment, taken in aggregate, would not result in a "significant" (see the definition in 20 DCMR 299) increase in any air pollutant, even without the operational limitations placed in the permit. See the emission data in the table above. With the operational limits, the potential to emit (see the definition in 20 DCMR 199) is far below the applicability thresholds of this regulation.

20 DCMR Chapter 2, Section 209: Permit Requirements For Minor New Source Review

Effective January 1, 2014, the requirements of this section are applicable to any source required to obtain a Chapter 2 permit to construct a new stationary source, modify an existing stationary source, or install or modify an air pollution control device on a stationary source that results in an increase of potential to emit (PTE) rate equal to or greater than five tons per year (5 TPY) from an individual unit of VOC, NO_x, SO₂, PM₁₀, PM_{2.5}, or total hazardous air pollutants (HAPs).

With the operational limits established, emissions of each of these pollutants is well below the 5 TPY threshold from each of the individual units. Therefore, 20 DCMR 209 is not applicable.

20 DCMR Chapter 6, Section 605: Control of Fugitive Dust

The fugitive dust control requirements of 20 DCMR 605 are applicable to these portable crushers and screeners. The requirements of this regulation are found in Conditions II(a) and (b) and III(d) of the permits. The facility must monitor the site for compliance per Condition IV(d). In addition to the specific requirements of this regulation, other requirements in the permits have been established to assist with achieving the goals of 20 DCMR 605, such as requiring installation and operation of water sprays on the equipment.

20 DCMR Chapter 6, Section 606: Visible Emissions

The visible emissions limitations of 20 DCMR 606.1 are applicable to these portable crushers and screeners. Visible emissions shall not be emitted into the outdoor atmosphere from the operation of the portable crusher/screen; provided, that discharges not exceeding forty percent (40%) opacity (unaveraged) shall be permitted for two minutes in any sixty (60) minute period and for an aggregate of twelve (12) minutes in any twenty-four hour (24 hr.) period during start-up, or malfunction of equipment. This requirement is contained in Condition II(d). Monitoring for compliance is required pursuant to Condition IV(e). Testing for compliance is required pursuant to Condition IV(g). Records of required testing must be maintained per Condition V(h) and reporting of results must occur per Condition VI.

CHAPTER 2 TECHNICAL MEMORANDUM

Strittmatter Metro, LLC

Permit Nos. 7253, 7254, 7255 and 7256 to Construct and Operate Portable Crushers and Screeners at the Montana Avenue Land Development Area Located at 1933 Montana Avenue NE

May 29, 2019

Page 4

A note was added to Condition II(d) to reflect that 20 DCMR 606 may be revised pursuant to the U.S. Environmental Protection Agency (EPA) request for a revision to the District's State Implementation Plan (SIP), known as the start-up, shut-down, and malfunction (SSM) SIP Call. If the regulation is revised, the revised regulatory language will replace that found in Condition II(d).

20 DCMR Chapter 9, Section 903: Odorous or Other Nuisance Air Pollutants

"An emission into the atmosphere of odorous or other air pollutants from any source in any quantity and of any characteristic, and duration which is, or is likely to be injurious to the public health or welfare, or which interferes with the reasonable enjoyment of life or property is prohibited [20 DCMR 903.1]" is applicable to this source category, temporary portable concrete crusher/screen equipment. This requirement is contained in Condition II(f) of the permit.

40 CFR 60, Subpart LL: Standards of Performance for Metallic Mineral Processing Plants

40 CFR 60, Subpart LL will not be applicable to any units covered by these permits. Subpart LL applies only to "metallic mineral processing plants" that are producing "metallic mineral concentrates" from ore (see 40 CFR 60.381).

40 CFR 60, Subpart OOO: Standards of Performance for Nonmetallic Mineral Processing Plants

40 CFR 60, Subpart OOO is applicable to the equipment covered by these permits. As a result of the applicability of this regulation, additional visible emissions requirements were placed in Condition II(e) with corresponding testing requirements in Condition IV(e) and (g), and record keeping and reporting requirements in Conditions V(h) and VI, respectively. Additionally, inspections of the water sprays have been required in Condition IV(f) with associated record keeping required in Condition V(g).

RECOMMENDATIONS

The application package to construct and operate the two crushers and two screeners and the draft operating permits comply with all applicable federal and District air pollution control laws and regulations.

Public comments for the permit action will be solicited from June 7, 2019 through July 8, 2019. A public hearing will also be held on July 8, 2019. If public comments are received, they will be reviewed and addressed before any final action is taken on the permit application package. If no adverse comments are received, I recommend that permit Nos. 7253, 7254, 7255, and 7256 be issued in accordance with 20 DCMR 200.1 and 200.2 promptly upon the completion of the public review period.

SSO/ATH

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