# June 27, 2024

Michael Thompson

Vice President and General Manager

Virginia Concrete Company, LLC dba Vulcan Materials Company

13880 Dulles Corner Ln Suite 450

Herndon, VA 20171

**RE: Permit No. 6451-R2 to Operate a Ready-Mix Concrete Batch Plant at 2 S St. SW, Washington, DC**

Dear Mr. Thompson:

Pursuant to sections 200.1 and 200.2 of Title 20 of the District of Columbia Municipal Regulations (20 DCMR), a permit from the Department of Energy and Environment (“the Department”) shall be obtained before any person can construct or operate a stationary source in the District of Columbia. The application of Virginia Concrete Company, LLC dba Vulcan Materials Company (“the Permittee”) for a permit to operate the ready-mix concrete batch plant with associated 2.8 MMBTU/hr natural gas fired boiler located at 2 S St. SW, Washington, DC has been reviewed. Permission to operate the ready-mix concrete batch plant with associated 2.8 MMBTU/hr natural gas fired boiler per the submitted application dated February 14, 2020, is granted subject to the following conditions:

I. General Requirements:

* 1. The approved ready-mix concrete batch plant and associated boiler shall be operated in accordance with all applicable air pollution control requirements of 20 DCMR.
	2. This permit expires on June 26, 2029 [20 DCMR 200.4]. If continued operation after this date is desired, the Permittee shall submit an application for renewal by January 26, 2029.

c. Operation of equipment under the authority of this permit shall be considered acceptance of its terms and conditions.

1. The Permittee shall allow authorized officials of the District, upon presentation of identification, to:

1. Enter upon the Permittee’s premises where a source or emission unit is located, an emissions related activity is conducted, or where records required by this permit are kept;

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirement.

1. This permit shall be kept on the premises and produced upon request.
2. Failure to comply with the provisions of this permit may be grounds for suspension or revocation. [20 DCMR 202.2]

II. Emission Limitations:

1. Emissions of dust shall be minimized in accordance with the requirements of 20 DCMR 605 and the “Operational Limitations” of this permit.
2. The emission of fugitive dust from any material handling, screening, crushing, grinding, conveying, mixing, or other industrial-type operation or process is prohibited. [20 DCMR 605.2]
3. The discharge of total suspended particulate matter into the atmosphere from any process shall not exceed three hundredths (0.03) grains per dry standard cubic foot of the exhaust. [20 DCMR 603.1]
4. The discharge of total suspended particulate matter from the ready-mix concrete batch plant shall not exceed 40 pounds per hour. [20 DCMR 603.1 and Appendix 6-1]
5. Emissions of total suspended particulate matter from the baghouse dust collector controlling emissions from the drum shall not exceed 1.3 pounds per hour. [20 DCMR 201]
6. Total suspended particulate matter emissions from the boiler shall not exceed 0.13 pounds per million BTU of heat input. [20 DCMR 600.1]. *Note that, unless other credible evidence of a violation, such as test results required under Condition IV(h), are identified, compliance with Conditions III(i) and (j) of this permit will be considered compliance with this condition.*
7. Visible emissions shall not be emitted from the equipment covered by this permit except that discharges shall be permitted for two (2) minutes during any startup, cleaning, adjustment of combustion or operational controls, or regeneration of emissions control equipment; provided, that such discharges shall not exceed the following opacities (unaveraged) for each of the following stationary sources [20 DCMR 606.1 and 606.2]:

1. Fuel-burning equipment burning natural gas (the 2.8 MMBTU/hr natural gas-fired boiler), twenty percent (20%);

2. All other stationary sources at the plant, twenty-seven percent (27%).

1. 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]

Violation of the requirements of this condition that occur as a result of unavoidable malfunction, despite the conscientious employment of control practices, shall be an affirmative defense for which the owner or operator shall bear the burden of proof. A malfunction shall not be considered unavoidable if the owner or operator could have taken, but did not take, appropriate steps to eliminate the malfunction within a reasonable time, as determined by the Department. [20 DCMR 903.13(b)]

III. Operational Limitations:

a. The maximum production of concrete from the batch concrete plant shall be as follows [20 DCMR 201]:

1. 300,000 cubic yards in any 12-consecutive-month period; and

2. 200 cubic yards in any hour.

b. Dust shall be controlled as follows [20 DCMR 201]

1. All dust generated from mixer or truck loading shall be captured and vented through the baghouse; and

2. All dust generated from pneumatic conveying to elevated storage silos and cement weigh batcher shall be captured and vented through one of the three (3) fabric filter dust collectors.

c. Each of the four (4) CP-Series fabric filter dust collectors and the baghouse shall maintain a particulate matter control efficiency of 99.9% at all times when the ready-mix concrete batch plant is operating. [20 DCMR 201]

d. The proper operation of the primary fabric filter (baghouse) shall be demonstrated with the use of differential pressure monitoring using an installed differential pressure gauge, capable of accurately measuring the differential pressure to the tenth of an inch of water[[1]](#footnote-1) (to be installed within 30 days of issuance of this permit, if not already installed), as follows [20 DCMR 104.2]:

1. When new bags are installed, the differential pressure across them shall be recorded. At no time during the life of those bags shall the differential pressure be permitted to drop below that level. Should this occur, the equipment shall be shut down and the bags inspected and replaced as needed.

2. After an initial reasonable period of operation to build up dust cake on the bags, the differential pressure shall be maintained between 0.80 and 8.0 inches of water. If, after 0.80 inches of water has been attained for an extended period (approximately equal to a full operating day), if the differential pressure again drops below 0.80 inches of water during operation, the equipment shall be shut down and the bags inspected and replaced as needed.

3. Operation with differential pressures equal to and above 8.0 inches of water are not permitted for more than two consecutive days. If they are observed, the equipment shall be shut down and the bags inspected and replaced as needed.

e. Except as specified in Condition III(f), proper operation of the four CP-Series fabric filter dust collectors (one C&W CP-35 unit installed on the cement weigh batcher and three C&W CP-305 units installed on the cement/Newcem silos) shall be demonstrated with the use of differential pressure monitoring using a differential pressure gauge installed across the filters of each unit as follows [20 DCMR 104.2]:

1. Upon initial issuance of this permit, the Permittee has 60 days to install differential pressure gauges on any of these filters that do not already have them in place and to propose a temporary minimum differential pressure for each fabric filter dust collector, based on operational observations. This temporary minimum differential pressure shall be submitted to the Department, with supporting documentation, for review and approval. Once approved, it shall be used until new filters are installed as a minimum differential pressure. Any readings below that level will require an inspection of the filters and, if appropriate, filter replacement. If filters are not replaced, this decision, along with a justification, shall be submitted to the Department for review within one week of the decision.

2. When new filters are installed, the differential pressure across them shall be recorded and reported to the Department. At no time during the life of those filters shall the differential pressure be permitted to drop below that level. Should this occur, the equipment shall be promptly shut down and the filters inspected and replaced as needed.

3. After an initial reasonable period of operation to build up dust cake on the filters (no more than one week of operation, unless otherwise justified), a new low end of the differential pressure range shall be determined and submitted to the Department for documentation. Thereafter, anytime the differential pressure drops below that level the filters shall be inspected to determine if any need replacement, and replaced as needed. Dropping below this level is not considered a deviation from the requirements of the permit, but failing to perform and document an inspection is considered a deviation.

4. Operation with differential pressures equal to and above 8.0 inches of water is not permitted for more than two consecutive days. If such readings are observed, the equipment shall be shut down and the filters inspected and replaced as needed.

5. Any submittals under this condition shall be submitted to the following addresses:

air.quality@dc.gov

and

aqd.permitting@dc.gov

f. As an alternative to the differential pressure monitoring described in Condition III(e), proper operation of the four CP-Series fabric filter dust collectors may be demonstrated in accordance with a dust collector filter monitoring plan approved in writing in advance by the Department. Such a fabric filter monitoring plan shall provide for periodic (at least once per day) or continuous monitoring of appropriate parameters to promptly identify failing filters for replacement, and shall specify the records to be maintained and the associated record keeping frequency, to document compliance with the plan. [20 DCMR 104.2]

g. A set of replacement filters for each of the four fabric filter dust collectors and the baghouse shall be kept onsite at all times (except for a reasonable period immediately after replacement of the filters to provide time for prompt re-order and shipment of a new set of replacement filters). Additionally, a set of key replacement parts for the dust collectors and the baghouse shall be kept on site at all times as specified by the equipment manufacturers’ recommendations. [20 DCMR 201]

h. The Permittee shall take reasonable precautions to minimize the emission of any fugitive dust into the outdoor atmosphere. These reasonable precautions shall include, but not be limited to the following [20 DCMR 605.1]:

* + - 1. In the case of unpaved roads, unpaved roadways, and unpaved parking lots:

Use of clean water in sufficient quantities and at sufficient frequencies to prevent the visible emission of dust due to the movement of vehicles or of the wind (use of binders or other chemicals may only be used with prior approval of the Department); and

Prompt clean-up of any dirt, earth, or other material from the vicinity of the road, roadway, or lot which has been transported from the road, roadway, or lot due to anthropogenic activity or due to natural forces.

* + - 1. In the case of paved roads, paved roadways, and paved parking lots: Maintenance of the road, roadway, lot, or paved shoulder in a reasonably clean condition through reasonably frequent use of water, sweepers, brooms, or other means through reasonably frequent removal of accumulated dirt from curb-side gutters, through reasonably prompt repair of pavement, or through any other means;
			2. In the case of vehicles transporting dusty material or material which is likely to become dusty:
				1. Fully covering the material in question, with a tarpaulin or other material; and
				2. Operation, maintenance, and loading of the vehicle, distribution of the loaded material on or in the vehicle, and limiting the quantity of material loaded on or in the vehicle, so that there will be no spillage of the material onto the roads;
			3. In the case of vehicles which accumulate dirt on the wheels, undercarriages, and other parts of the vehicle, due to the movement of the vehicle on dusty, dirty or muddy surfaces: Water washing of all of the dirty parts of the vehicle to thoroughly remove the dirt before or immediately after the vehicle leaves the dusty, dirty, or muddy surface.
			4. In the case of the demolition of buildings or structures: Use, to the extent possible, of water;
			5. In the case of removal of demolition debris which is dusty or likely to become dusty: Use of water to thoroughly wet the material before moving or removing the material and keeping it wet or otherwise in a dust-free condition until eventual disposal;
			6. In the case of loading and unloading of dusty material and in the case where dry sand-blasting or dry abrasive cleaning is necessary: Use of enclosed areas or hoods, vents, and fabric filters. If it is shown to the satisfaction of the Mayor that use of enclosed areas, hoods, vents, and fabric filters is not possible, alternate control techniques acceptable to the Mayor and designed to minimize the emissions to the extent possible shall be utilized; and
			7. In the case of stockpiles of dusty material: Use, where possible, of closed silos, closed bins or other enclosures which are adequately vented to fabric filters. Where the use of closed silos, closed bins, or other enclosures is not possible, thorough wetting of the material before loading onto the stockpile and keeping the stockpile wetted, covered, or otherwise in a non-dusty condition.
			8. The facility shall be maintained in a tidy manner, ensuring that spilled materials are cleaned up at least daily by close of business and additionally as necessary to avoid migration of dust offsite. Cleaning shall include materials dropped from trucks, materials spilled from conveyors, and any other spillages or accumulations.

i. The ready-mix concrete batch plant and associated boiler shall be operated in accordance with the recommendations of the equipment manufacturers. [20 DCMR 201]

j. The Permittee shall [20 DCMR 606.4]:

1. Maintain and operate the equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions, including during startup, shutdown, and malfunction;

2. Maintain the equipment in accordance with one of the following:

i. The manufacturer’s emission-related written instructions; or

ii. Unless preempted by specific federal regulation, an alternate written maintenance plan approved in writing by the Department; and

3. Ensure that persons participating in the maintenance and operation of equipment are adequately trained and supervised to meet the requirements of Conditions III(j)(2)(i) and (ii).

k. The 2.8 MMBTU per hour boiler shall fire only natural gas. [20 DCMR 201]

1. Onroad Engine Idling and Nonroad Diesel Engine[[2]](#footnote-2) Idling
	* 1. The Permittee shall ensure that the provisions of 20 DCMR 900.1 pertaining to onroad engine idling are met at the facility. Specifically, the Permittee shall ensure that no engine of a gasoline or diesel powered motor vehicle, the engine of a public vehicle for hire, including buses with a seating capacity of twelve (12) or more persons, shall idle for more than three (3) minutes while the motor vehicle is parked, stopped, or standing, on the premises or on roadways adjacent to the premises for the purpose of serving the premises, including for the purpose of operating air conditioning equipment in those vehicles, except as follows:
2. To operate private passenger vehicles;
3. To operate power takeoff equipment including: dumping, cement mixers, refrigeration systems, content delivery, winches, or shredders;
4. To idle the engine for five (5) minutes to operate heating equipment when the ambient air temperature is thirty-two degrees Fahrenheit (32 oF) or below; or
5. To operate warming buses during a Cold Emergency Alert in accordance with 20 DCMR 900.1(d).

2. No person owning, operating, leasing, or having control over a nonroad diesel engine, or the holder of the permit for the activity for which the nonroad diesel engine is being operated, shall cause or allow the idling of a nonroad diesel engine under its control or on its property for more than three (3) consecutive minutes. [20 DCMR 900.2]

3. Condition III(l)(2) does not apply to locomotives, generator sets, marine vessels, recreational vehicles, farming equipment, military equipment when it is being used during training exercises, emergency or public safety situations, or any private use of a nonroad diesel engine that is not for compensation. [20 DCMR 900.3]

4. The idling limit in Condition III(l)(2) does not apply to [20 DCMR 900.4]:

1. Idling necessary to ensure the safe operation of the equipment and safety of the operator, such as conditions specified by the equipment manufacturer in the manual or an appropriate technical document accompanying the nonroad diesel engine;
2. Idling for testing, servicing, repairing, diagnostic purposes, or to verify that the equipment is in good working order, including regeneration of a diesel particulate filter, in accordance with the equipment manufacturer manual or other technical document accompanying the nonroad diesel engine;
3. Idling for less than fifteen (15) minutes when queuing (i.e., when nonroad diesel equipment, situated in a queue of other vehicles, must intermittently move forward to perform work or a service), not including the time an operator may wait motionless in line in anticipation of the start of a workday or opening of a location where work or a service will be performed.
4. Idling by any nonroad diesel engine being used in an emergency or public safety capacity;
5. Idling for a state or federal inspection to verify that all equipment is in good working order, if idling is required as part of the inspection; and
6. Idling for up to five (5) consecutive minutes to operate heating equipment when the ambient air temperature is thirty-two degrees Fahrenheit (32ºF) or below.
7. The Permittee shall, at least once per calendar quarter, starting with the first full calendar quarter following issuance of this permit, wash down S Street SW, between Half Street SW to the west and the end of the street where it turns north in front of the facility entrance, as follows [20 DCMR 605.1]:

Such washdowns shall be performed in compliance with the District’s Water Pollution Control Act of 1984. This permit does not authorize discharge of wash water to any storm sewer. Any such discharge may be considered a violation of the District’s Water Pollution Control Act of 1984.[[3]](#footnote-3)

At least 30 days prior to the first washdown, a detailed protocol for the washdown process shall be submitted to the Department. This protocol shall:

i. Describe the equipment and method(s) intended for use in washing down the roadway;

ii. Detail how the wash water will be collected and kept out of the storm sewer system;

iii. Shall be submitted to the Department electronically at the following addresses:

A. air.quality@dc.gov; and

B. david.pilat@dc.gov; and

iv. Shall not be implemented until it has been approved, in writing, by the Department (both the Air Quality Division and the Inspection and Enforcement Division).

v. Revisions to this protocol may be made by the Permittee, but the revisions shall not be implemented until approval of the revised protocol has been received from the Department (both the Air Quality Division and the Inspection and Enforcement Division).

vi. The Department may, at its discretion, require that the protocol be revised following approval, should deficiencies be identified at a later date.

Each required washdown shall be performed pursuant to a protocol approved pursuant to Condition III(m)(2), however, a new protocol is not required for each subsequent washdown if the previously approved procedure is to be used again, unchanged.

In addition to approval of the protocol, prior to each washdown, the Department shall be notified at least one week in advance of the washdown date. The Department must have the opportunity to observe the washdown process. All such notifications shall be sent to the following email addresses:

i. air.quality@dc.gov; and

ii. david.pilat@dc.gov.

These washdowns are not required for portions of the road not accessible due to road construction, for the duration of the road construction. If truck traffic is rerouted due to road construction, a different road segment may be specified for cleaning by the Department in lieu of the specified segment of S Street SW.

n. The Permittee shall maintain a cover on the sand conveyor belt to reduce wind-blown dust from aggregate transfer. [20 DCMR 605.1]

o. The Permittee shall maintain a cover over the sand aggregate pile to reduce wind-blown dust from sand storage. [20 DCMR 605.1]

p. The Permittee shall maintain a fabric cover on the fencing surrounding the plant to reduce dust migration off the site. [20 DCMR 605.1]

q. The Permittee shall stage a wet sweeper vehicle at the site and shall use it as follows to minimize dust migration from the plant premises [20 DCMR 605.1]:

1. The portions of the plant accessible to the sweeper shall be swept at least twice per day on any day that the plant operates and as otherwise necessary to avoid dust build-up and migration off site;

2. S Street SW between Half Street SW to the west and the end of the street where it turns north in front of the facility entrance shall be swept at least twice per day on any day that the plant operates and as otherwise necessary to avoid dust build-up from track-out from the plant. As necessary to maintain a clean roadway, the Permittee shall seek Public Space permits from the District Department of Transportation (DDOT) to ensure that all parts of the roadway are accessible for sweeping; and

3. During all operations of the wet sweeper vehicle, the vehicle shall be used as designed and shall be supplied with sufficient water to ensure effective sweeping.

r. The Permittee shall maintain and operate a truck wash system at the site. Each cement truck must be washed with the system after loading is complete, except when temperatures are at or below 32 °F. If, due to requirements related to a specialty load, it is not possible to wash the truck in the truck wash system without affecting product quality, the Permittee may, as an alternative, wash the truck manually, but must still wash the truck. [20 DCMR 605.1]

s. The Permittee shall develop and implement an approved dust control plan for the facility as follows:

1. Within 60 days following issuance of this permit, the Permittee shall develop and submit a dust control plan for the facility sufficient to ensure compliance with the requirements of 20 DCMR 605, the particulate matter-related portions of Section II of this permit, and to minimize dust migration off the plant premises.

2. This plan shall be submitted to the Department at the following addresses:

air.quality@dc.gov

and

Chief, Permitting Branch

Department of Energy and Environment

Air Quality Division

1200 First Street NE, 5th Floor

Washington DC 20002

3. The dust control plan is subject to approval by the Department. If the Department determines that the submitted dust control plan is insufficient to meet the requirements specified in Condition III(s)(1), the Department shall disapprove the dust control plan and provide a written description of the reason(s) for disapproval to the Permittee. Such disapproval shall include a deadline for the Permittee to submit a revised dust control plan addressing the identified insufficiencies.

4. The Permittee may request approval of a revised dust control plan at any time, but any such plan must meet the requirements of Condition III(s)(1) and must be approved by the Department prior to implementing any changes.

5. If, after approval and implementation of a dust control plan, the Department determines that it does not achieve the requirements of Condition III(s)(1), the Department may require the facility to reopen the dust control plan and submit a revised plan for approval following the procedures specified above.

t. The Permittee shall maintain signs around the perimeter of the site and within the site, in both English and Spanish, to notify drivers of the requirement to maintain compliance with the engine idling restrictions of Condition III(l). [20 DCMR 201]

u. The Permittee shall train all Virginia Concrete and Vulcan Materials employed drivers at least once per year on the requirements of the District’s engine idling regulation (20 DCMR 900).

IV. Monitoring and Testing Requirements:

1. The Permittee shall monitor the quantity of concrete produced, in cubic yards, on an hourly, monthly, and rolling 12-consecutive month basis, and the operating hours of the concrete batch plant each day to ensure compliance with Condition III(a).
2. The Permittee shall monitor the differential pressure across the primary baghouse filters to ensure compliance with Condition III(d) and the four CP-Series fabric filter dust collectors, as applicable, to ensure compliance with Condition III(e). If an alternative fabric filter monitoring plan is approved pursuant to Condition III(f), the monitoring procedures in that approved plan shall be followed.
3. At least once per week, during operation of the ready-mix concrete batch plant and relevant equipment, the Permittee shall conduct visual observations of the emissions from the plant, from the baghouse outlet stack, the boiler outlet stack, the cement weigh batcher dust collector outlet, and from elsewhere in the plant. If no operations occur during a given week, this shall be so noted. Additionally, at least once per month, during delivery to each of the raw material silos, observations of the outlets of the silo vent locations shall be observed. If visible emissions are observed during an of these observations, the following procedures shall be followed to address Conditions II(b) and (g), respectively:

1. If visible emissions of fugitive dust are observed in excess of the limit specified in Condition II(b), prompt action shall be taken to correct the problem. Operations shall not continue (except as necessary for troubleshooting purposes) if such exceedances are observable, until such time as the problem has been addressed and the equipment has been returned to compliance.

2. If visible emissions of fugitive dust or smoke are observed, the Permittee shall either discontinue operations until the problem is corrected or shall make arrangements for prompt visible emissions testing by a person certified in accordance with EPA Reference Method 9 (40 CFR 60, Appendix A). Such a test shall consist of a minimum of 30 minutes of opacity observations and shall be performed while operating in a similar manner as was occurring when the visible emissions were observed. If an exceedance of the requirements of Condition II(g) are observed, operations shall be discontinued until the problem is corrected.

1. The Permittee shall monitor any odor emitted from the facility and take any actions necessary to ensure compliance with Condition II(h).
2. The Permittee shall monitor the conditions at the site and take any actions necessary to ensure compliance with the fugitive dust requirements of Conditions II(a) and III(h).
3. The Permittee shall perform all monitoring and testing specified in the dust control plan for the facility, put in place pursuant to Condition III(s).
4. The Department reserves the right to require that the Permittee conduct performance tests and/or stack tests to determine compliance with Conditions II(c), (d), (e), and (f). In the case that a performance test or stack test is required by the District, the Permittee shall furnish the District with a written report of the results of such performance tests in accordance with the following procedures. [20 DCMR 104.2(b) and 20 DCMR 502.1]
5. The stack tests shall be performed in accordance with 40 CFR 60, Appendix A, Methods 1 through 5 and Method 201/201a or other method(s) approved by the Department. The performance test shall consist of three separate one-hour runs using this test method.
6. One (1) original test protocol shall be submitted to air.quality@dc.gov a minimum of thirty (30) days in advance of the proposed test date. The test shall be conducted in accordance with Federal and District requirements.
7. The test protocol and test date(s) shall be approved by the Department prior to initiating any testing. The Department must have the opportunity to observe the test for the results to be considered for acceptance.
8. The final results of the testing shall be submitted to the Department within sixty (60) days of the test completion. One (1) original copy and one (1) electronic copy of the test report shall be submitted to the following addresses:

Chief, Compliance and Enforcement Branch

Department of Energy and Environment

Air Quality Division

1200 First Street NE, 5th Floor

Washington DC 20002

and

air.quality@dc.gov

1. The final report of the results shall include the emissions test report (including raw data from the test) as well as a summary of the test results and a statement of compliance or non-compliance with permit conditions to be considered valid. The summary of results and statement of compliance or non-compliance shall contain the following information:

i. A statement that the owner or operator has reviewed the report from the emissions testing firm and agrees with the findings.

ii. Permit number(s) and condition(s) which are the basis for the compliance evaluation.

iii. Summary of results with respect to each permit condition.

iv. Statement of compliance or non-compliance with each permit condition.

1. The results must demonstrate to the Department’s satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the owner or operator shall propose corrective action(s). Failure to demonstrate compliance through the test may result in enforcement action.
2. In addition to the testing required above, the Permittee shall conduct and allow the Department access to conduct tests of air pollution emissions from any source as requested. [20 DCMR 104.2(b) and 20 DCMR 502.1]
3. The Permittee shall monitor the operation of the equipment, the maintenance performed on it, and the stores of extra filters to ensure compliance with Conditions III(b), (c), (g), (i), (j), and (k).
4. The Permittee shall monitor the use of onroad engines and nonroad diesel engines at the site to ensure that compliance with the engine idling restrictions specified in Condition III(l) are maintained. Whenever impermissible idling is identified, either on the facility site, or on adjoining roadways by vehicles at the location for purposes of business with or employment duties for the Permittee, the driver shall be directed to cease the non-compliant idling and counseled on the requirements of the idling regulation.
5. The Permittee shall monitor dust levels at the site as well as the frequency and completeness of wet sweeping operations at and around the facility to ensure compliance with Condition III(q).
6. The Permittee shall monitor the maintenance and use of the truck wash system and alternate manual washing operations to ensure compliance with Condition III(r).
7. Within 60 days of issuance of this permit, the Permittee shall submit a plan to perform fenceline ambient air monitoring of the site for both coarse particulate matter (PM10) and fine particulate matter (PM2.5). The fenceline monitoring plan shall be designed to determine whether there are exceedances or impending exceedances of the National Ambient Air Quality Standards (NAAQS) for PM10 and PM2.5, caused or substantially contributed to by operations of the plant at the fenceline of the facility, and to evaluate any procedures that need to be put in place on a permanent basis to avoid any such exceedances. Any such plan shall meet the following specifications [20 DCMR 104.2(b)]:

1. It shall include provisions for surface-level wind measurements (wind speed and direction) coincident with monitoring to assist in identifying if the facility is causing or substantially contributing to any exceedances of the PM10 or PM2.5 NAAQS downwind of the facility;

2. It shall include provision for sufficient monitors to evaluate upwind and downwind concentrations for varying wind directions. Such monitors shall be placed in not less than three locations around the plant;

3. It shall be implemented on a 24-hour per day basis for a period of at least 12 full calendar months after commencement of monitoring according to an approved monitoring plan. The monitoring plan shall contain data capture requirements to establish any exceptions to the 24-hour per day base monitoring requirement;

4. It shall establish criteria for determining whether the air monitoring may be discontinued after the initial 12-month monitoring period has been completed. If these criteria have not been met, except as specified in Condition IV(m)(5), monitoring shall be extended for an additional three-month period, at which point it will be re-evaluated and discontinued or extended as appropriate. Except as specified in Condition IV(m)(5), monitoring shall not be discontinued until these criteria established in the plan have been met;

5. At any time after the first 12 months of monitoring, the Permittee may discontinue the monitoring program on the basis that further monitoring is not reasonably likely to allow determination of whether operations of the plant cause or substantially contribute to exceedances of the PM10 or PM2.5 NAAQS, upon meeting the following conditions:

i. Submitting an evaluation of the activities to date and providing a description why they are not achieving the goals of the monitoring program as set forth in Condition IV(m);

ii. Including with the above submittal an evaluation of reasonable modifications to the monitoring strategy and justifying why such modifications are unlikely to achieve the goals of the monitoring program as set forth in Condition IV(m); and

iii. Obtaining written approval of this submittal from the Department;

6. At any time during the monitoring program, revisions to the monitoring program may be made, upon approval of the Department, to improve the effectiveness of the monitoring program. The Department may require such reasonable program revisions to evaluate whether such revisions will result in achievement of the monitoring program’s goals, where it appears that the current procedures are not achieving the program goals;

7. The plan shall establish action levels sufficient to provide enough time to take effective action to ensure that the Permittee does not cause or substantially contribute to an exceedance of the PM10 or PM2.5 NAAQS as measured at any downwind fenceline monitor operated as part of this monitoring plan.

For purposes of this plan, unless a different threshold is proposed and approved by the Department, the first action level shall be a one-hour average PM10 level in excess of 150 micrograms per cubic meter (µg/m3) or a one-hour average PM2.5 level in excess of 35 µg/m3.

The PM10 NAAQS is 150 µg/m3 on a 24-hour average basis.

The PM2.5 NAAQS is 35 µg/m3 on a 24-hour average basis.

The Permittee shall be considered to have substantially contributed to a PM10 concentration above an action level stipulated in this plan or an exceedance of the PM10 NAAQS if the incremental PM10 concentration contribution at a representative monitor is 35 µg/m3 or greater.

The Permittee shall be considered to have substantially contributed to a PM2.5 concentration above an action level stipulated in this plan or an exceedance of the PM2.5 NAAQS if the incremental PM2.5 concentration contribution at a representative monitor is 9.0 µg/m3 or greater.

The incremental concentration contribution shall be determined from representative upwind and downwind monitors of the facility’s fenceline monitoring network. The average will be calculated on a 1-hour basis for comparison with the action level (or other time period specified in the monitoring plan) and on a 24-hour basis for comparison with the PM10 and PM2.5 NAAQS.

8. The plan shall include contingency measures for actions (including, but not limited to investigation of the specific plant operation thought responsible for the concentration of PM10 or PM2.5 above the action level) that the facility will take to reduce particulate matter emissions should such concentration be above any action level contained in the plan and the Permittee has been determined to have substantially contributed to such concentration. If a concentration(s) of PM10 or PM2.5 above an action level have been recorded at one or more downwind monitor(s) and resulted in a need to implement contingency measures to avoid exceedance of the PM10 or PM2.5 NAAQS, monitoring shall continue until such time as permanent procedures are identified and put in place to remove the cause(s) of the action level trigger(s). Such procedures shall be memorialized in either a permit amendment or an approved revision to the facility’s dust control plan incorporated by reference into this permit;

9. The plan shall include a method for communicating the results of the monitoring to the Department in a timely manner;

10. The plan and any related correspondence shall be submitted to the following addresses:

air.quality@dc.gov

and

stephen.ours@dc.gov

n. The plan submitted pursuant to Condition IV(m) shall be subject to approval of the Department. If the Department does not deem such a plan, or revisions thereof, approvable within 30 days after submittal, the Department may, at its discretion, specify plan requirements directly. Any Department determinations made with respect to this plan are subject to review pursuant to D.C. Official Code § 8-101.05h.

o. Monitoring pursuant to the plan submitted pursuant to Condition IV(m) and approved subject to Condition IV(n) shall begin no later than 90 days after Department approval of the plan. If monitoring has not begun by this time, the plant shall cease operations until such time as monitoring is implemented.

p. The Permittee shall comply with any approved monitoring plan for the full duration of the required monitoring.

V. Record Keeping and Reporting Requirements:

a. Except where a longer period is specified herein, the Permittee shall maintain all records necessary for determining compliance with this permit in a readily accessible location at the facility, or an electronic location readily accessible from the facility, for a minimum of three (3) years and shall make these records available to the Department and EPA upon written or verbal request. [20 DCMR 104.2(b), 20 DCMR 500.8 and 20 DCMR 606.5(d)] All records shall be maintained in such a manner that authorized representatives can certify their accuracy under penalty of D.C. Official Code § 8-101.05e pertaining to false statements, and have either done so in the records, or will do so upon request at the time they are made available to the Department or EPA.

b. The following information shall be recorded and maintained in accordance with Condition V(a) [20 DCMR 104.2(b), 20 DCMR 500.8 and 20 DCMR 606.5(d)]:

1. The Permittee shall keep a record of the total cubic yards of concrete produced at the ready-mix concrete batch plant site each day. This shall be kept by keeping a log, updated daily. Additionally, the Permittee shall keep a record of the total cubic yards of concrete produced in a 12-month rolling sum format, updated monthly for the previous 12 calendar months to ensure compliance with the operational requirements of Condition III(a) of this permit.

2. The Permittee shall record the differential pressure across the primary fabric filter (baghouse) by use of the differential pressure gauge at least once each day, during truck or mixer loading to ensure compliance with the operational requirements of Condition III(d) of this permit.

3. Except as specified in Condition V(b)(4), the Permittee shall record the differential pressure across the four CP-Series fabric filter dust collectors at least once per week, when they are actively in use. If any of these dust collectors is not used in a given week, this shall be so noted in the records.

4. If an alternative fabric filter monitoring plan is approved pursuant to Condition III(f), the Permittee shall maintain the records specified in that plan for the relevant fabric filters.

5. The Permittee shall keep the following records related to differential pressure across the primary baghouse:

i. The date of installation of a differential pressure gauge capable of measuring to the tenth of an inch of water, as specified in Condition III(d) and associated footnote 1 of this document, if not already installed at the time of permit issuance (in which case, documentation of its existence at the time of permit issuance shall be recorded);

ii. Each time new bags are installed, the date of bag installation, the number of new bags installed, and the differential pressure across the new bags shall be recorded and maintained;

iii. At least once per day, during operation of the equipment being controlled, the differential pressure across the baghouse shall be recorded and maintained, except that if the equipment is not in operation on a given day, this shall be so noted in lieu of recording a differential pressure that day; and

iv. Records of any differential pressure readings below 0.8 inches of water (after initial dust cake build-up) or above 8.0 inches of water at any time shall be highlighted and records of the actions taken to address these occurrences pursuant to Conditions III(d)(2) and (3), as well as the dates of such actions, shall be maintained in a readily accessible manner.

6. The Permittee shall keep the following records related to monitoring for proper operation and maintenance of the four CP-series fabric filter dust collectors:

i. Except as specified in Condition V(b)(6)(ii), the Permittee shall maintain the following records related to differential pressure across each of the CP-series fabric filter dust collectors:

1. The specifications of and date of installation of any differential pressure monitoring gauges to be used across the filters;

2. The value of and basis for the temporary minimum differential pressure value required to be identified under Condition III(e)(1), as well as a copy of the submittal to the Department proposing such value;

3. Each time new filters are installed, the date of filter installation, the number of new filters installed, and the differential pressure across the filters immediately following installation shall be recorded and maintained;

4. After dust cake build-up, pursuant to Condition III(e)(3), the new low end differential pressure, as well as a copy of the submittal to the Department identifying this value;

5. At least once per day, during operation of the equipment being controlled, the differential pressure across the fabric filter shall be recorded and maintained, except that if the equipment is not in operation on a given day, this shall be so noted in lieu of recording a differential pressure that day; and

6. Records of any differential pressure readings below the temporary minimum differential pressure value obtained pursuant to Condition III(e)(1), while it is in effect, the clean filter differential pressure obtained pursuant to Condition III(e)(2), and the post dust cake build-up low end differential pressure obtained pursuant to Condition III(e)(3) shall all be highlighted and recorded, as well as the actions taken to address these excursions below each of these thresholds and the date of such actions; and

7. Records of any differential pressure reading above 8.0 inches of water shall be recorded as well as the actions taken to address such excursions and the date of such actions.

ii. As an alternative to the requirements of Condition V(b)(6)(i), and only if an alternative dust collector filter monitoring plan has been approved pursuant to Condition III(f), the Permittee shall maintain all records specified in that approved plan on the schedules specified in that plan.

6. The Permittee shall keep a record of all deviations from the pressure drop requirements of Conditions III(d) and (e) and the actions taken to correct each identified deviation.

1. The Permittee shall maintain a copy of the specifications for the bags used in the fabric filter dust collectors and baghouse to document compliance with Condition III(c).
2. The Permittee shall maintain a copy of the ready-mix concrete batch plant, fabric filter dust collectors, and baghouse manufacturers’ maintenance and operating recommendations and make such available to Department inspectors.
3. The Permittee shall maintain a record of all maintenance performed on the equipment covered by this permit to document compliance with Condition III(j)(1) and (2).
4. The Permittee shall maintain records of the training of all persons participating in the maintenance and operation of equipment covered by this permit to document compliance with Condition III(j)(3).
5. The Permittee shall maintain the following records of the washdowns required pursuant to Condition III(m):

i. A copy of the most recent washdown protocol and the associated approval;

ii. Records of the notifications to the Department of washdown scheduling;

iii. Records of the date of each washdown;

iv. Dated photographs to document the state of the road following each washdown; and

v. If an otherwise scheduled washdown could not be performed due to road construction, per Condition III(m)(5), records of that fact shall be maintained.

1. The Permittee shall maintain records of each use of the wet sweeper to document that all required areas, including both those within the plant and those on the street, as specified in Condition III(q) of this permit, were swept at least twice per day that the plant operates.
2. The Permittee shall maintain a copy of the approved dust control plan for the facility, required pursuant to Condition III(s), and any records required under such plan as specified in the plan.
3. The Permittee shall keep a record of the date, time, and results of all visible emissions monitoring performed pursuant to Condition IV(c).
4. The Permittee shall keep records of all odors identified pursuant to Conditions II(h) and IV(d) and the actions taken to correct them.
5. The Permittee shall keep records of any fugitive dust exceedances identified pursuant to Conditions IV(c), (e), or (f) and the actions taken to correct them.
6. The Permittee shall keep records of the operating conditions, raw data, and results of any testing performed pursuant to Conditions IV(g) and (h) for the duration of the operations of the plant at the site.
7. Reporting related to any testing required pursuant to Conditions IV(g) or (h) shall be performed in accordance with the reporting procedures specified in Condition IV(g).
8. The Permittee shall [20 DCMR 606.5]:

i. Maintain signed or electronically verified logs of the date, time, and duration of any equipment manual startup, manual shutdown, cleaning, combustion control adjustment, emission control regeneration, and malfunction; and

ii. For any malfunction, investigate the cause of the malfunction and maintain records of the investigatory activities and conclusions of such investigation.

20. Whenever improperly idling engines are identified pursuant to Condition IV(k), the Permittee shall note the occurrence and the Permittee’s response to counsel the driver.

21. The Permittee shall maintain records of all engine idling training performed pursuant to Condition III(u).

22. The Permittee shall record and submit any data and notifications identified in the approved fenceline monitoring plan (Conditions IV(m) through (p)) in accordance with and on the schedules specified in the plan.

If you have any questions, please call me at (202) 498-8143 or stephen.ours@dc.gov.

Sincerely,

Stephen S. Ours, P.E.

Chief, Permitting Branch

SSO

1. A gauge graduated in 0.2 inches of water increments is acceptable to meet this requirement, but graduations in half, quarter, or eighths inches are not acceptable. [↑](#footnote-ref-1)
2. See 20 DCMR 999 for the definition of “Nonroad diesel engine”. [↑](#footnote-ref-2)
3. Note that implementation of this washdown process will need to be incorporated into the facility’s Stormwater Pollution Prevention Plan (SWPPP). Please contact David Pilat, Branch Chief, Illicit Discharge and NPDES Branch, Inspection and Enforcement Division, at david.pilat@dc.gov with any questions about this requirement. This process will be addressed separately from this air quality permit. [↑](#footnote-ref-3)