

# CITY OF CHICAGO

## RULES



### Control of Emissions from Handling and Storing Bulk Materials

Effective January 25, 2019



Mayor Rahm Emanuel

Commissioner Julie Morita, M.D.

BY AUTHORITY VESTED IN THE COMMISSIONER OF THE DEPARTMENT OF PUBLIC HEALTH PURSUANT 2-112-160(b) AND 11-4-760(e), 11-4-770 AND 11-4-800 THE RULES REGARDING CONTROL OF EMISSIONS FROM HANDLING AND STORING BULK MATERIALS, WHICH WERE PUBLISHED ON MARCH 13, 2014, ARE HEREBY AMENDED AND REISSUED, AS FOLLOWS:

By Order of the Commissioner:

Signed:   
Commissioner Julie Morita, M.D.

Date: 1/24/2019

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(THESE UPDATED RULES SUPERSEDE THE RULES ENTITLED, "AIR POLLUTION CONTROL: EMISSIONS FROM HANDLING AND STORAGE OF BULK MATERIALS," WHICH WERE PUBLISHED AND BECAME EFFECTIVE ON MARCH 13, 2014)

**CITY OF CHICAGO  
DEPARTMENT OF PUBLIC HEALTH**

**RULES FOR CONTROL OF EMISSIONS  
FROM HANDLING AND STORING BULK MATERIALS**

Whereas, pursuant to Chapters 2-112 and 11-4 of the Municipal Code of Chicago (the “Code”), the Department of Public Health (the “Department”) is charged with enforcement of environmental regulations within the City of Chicago, including the enforcement of regulations intended to reduce the risk of harm to public health or the environment from air pollution; and

Whereas, pursuant to the authority granted by Section 2-112-160(b) of the Code, the Commissioner of Health (the “Commissioner”) is authorized to issue rules necessary or proper for the implementation of environmental ordinances and to accomplish the purposes of Chapter 11-4 of the Code, and is further authorized to make reasonable administrative and procedural regulations or rules interpreting or clarifying the requirements which are specifically prescribed in Chapter 11-4 of the Code; and

Whereas, this general rule-making authority includes any rules necessary to implement Article II of Chapter 11-4 of the Code, Sections 11-4-600 through 11-4-810, the “Air Pollution Control Ordinance”; and

Whereas, this general rule-making authority also includes any rules necessary to implement Article VIII of Chapter 11-4 of the Code, Sections 11-4-1410 through 11-4-1460, “Pollution of Waters”; and

Whereas, Section 11-4-800 of the Code further authorizes the Commissioner to issue rules to implement Article II of Chapter 11-4 of the Code; and

Whereas, Section 11-4-760(e) of the Code authorizes the Commissioner to promulgate additional rules for the proper management of any substance or material that may become airborne or be scattered by the wind; and

Whereas, in addition, Section 11-4-770 of the Code provides that, for the purpose of minimizing air pollution, the Commissioner may prescribe, by rules and regulations, reasonable, specific operating and maintenance practices for buildings, structures, premises, open areas, automobiles and/or truck parking and sales lots, private roadways, rights-of-way, storage piles of materials, yards, vessels, vehicles, construction, sandblasting, alteration, building, demolition or wrecking operations and any other enterprise which has or involves any matter, material or substance susceptible to being windborne and for the handling, transportation, disposition or other operation with respect to any material subject to being windborne; and

Whereas, Chicago is a densely populated metropolitan area, such that industrial uses are sometimes in close proximity to residential uses; now, therefore,

I, Julie Morita, M.D., Commissioner, Department of Health, City of Chicago, issue the following rules pursuant to the authority granted to me by Sections 2-112-160, 11-4-760(e), 11-4-770, and 11-4-800 of the Municipal Code of Chicago.

## **PART A: INTRODUCTION**

**1.0 Scope and Purpose.** The purpose of these Rules is to prescribe reasonable, specific operating and maintenance practices to minimize emissions of airborne particulate matter from the storage, on-site handling, loading, unloading, stockpiling, and Processing of Bulk Solid Materials as defined herein, including but not limited to ores, coal, and coke, including petroleum coke (“petcoke”) and metallurgical coke (“metcoke”). These Rules apply to any owner, operator, or other person who stores, loads, unloads, stockpiles, handles on-site, Processes, or uses Bulk Solid Materials. Part B sets forth requirements that are applicable to all Bulk Solid Material Facilities. Part C sets forth requirements that are applicable only to Coke or Coal Bulk Material Facilities. Part D sets forth requirements that are applicable only to facilities that handle Manganese-Bearing Materials. Part E sets forth requirements that are applicable only to Bulk Solid Material Facilities that have outdoor storage piles and that are not Coke or Coal Bulk Material Facilities. Part F sets forth compliance and variance provisions for all Bulk Solid Material Facilities.

**2.0 Definitions.** For purposes of these rules, the following definitions shall apply:

- (1) ASTM means the American Society for Testing and Materials.
- (2) BLEND or MIX means combining two or more Bulk Solid Materials.
- (3) BULK SOLID MATERIAL means any Non-Packaged solid substance or material that can be used as a fuel or as an ingredient in a manufacturing process that may become airborne or be scattered by the wind and that, except for coke and coal, is stored at a Facility in an amount equal to or greater than 25 cubic yards at any one time, including but not limited to ores, coal, and coke, including petcoke and metcoke, but shall not include salt, grains, Construction and Demolition Materials, materials that are handled or stored pursuant to a recycling, reprocessing, or waste handling Facility permit under Chapter 11-4 of the Code, or materials used in manufacturing cement at a facility that has obtained a construction permit and prevention of significant deterioration approval from the Illinois Environmental Protection Agency.
- (4) CHEMICAL STABILIZER is any chemical dust suppressant which is not prohibited for the uses proposed in these rules or by any other applicable law, and which meets all applicable specifications required by any federal, state, or local agency.
- (5) COAL is a solid, brittle, carbonaceous rock classified as anthracite, bituminous, subbituminous, or lignite by ASTM Designation D388-77.
- (6) COKE is a solid carbonaceous material derived from the distillation of coal (including metallurgical coke) or from oil refinery coker units or other cracking processes (including petroleum coke).

- (7) **COKE OR COAL BULK MATERIAL FACILITY** is a source, site, or facility where coke or coal is stored, loaded, unloaded, stockpiled, handled on-site, blended, Processed, or otherwise managed.
- (8) **CONSTRUCTION OR DEMOLITION MATERIAL** means material used in or resulting from the construction, remodeling, repair, landscaping, or demolition of utilities, structures, buildings, and roads, including but not limited to stockpiles of crushed stone, sand and gravel, hot mix asphalt plants or ready mixed concrete plants.
- (9) **EXISTING FACILITY** is a Facility that is properly permitted by the Commissioner, and subject to a Certificate of Operation issued by the Commissioner, as of the issuance date of these Rules and is limited to operations within Facility boundaries as the boundaries exist on the issuance date of these Rules.
- (10) **FACILITY** is all contiguous land, and structures, other appurtenances, and improvements on the land, used for storing, on-site handling, loading, unloading, stockpiling or Processing Bulk Solid Material.
- (11) **FUGITIVE DUST** means any solid particulate matter that becomes airborne by natural or human-made activities, excluding engine combustion exhaust and particulate matter emitted from a properly permitted exhaust stack equipped with a pollution control device.
- (12) **HIGH WIND CONDITIONS** is when average wind speeds exceed 15 miles per hour over two consecutive five minute intervals of time.
- (13) **INTERNAL ROAD** means any route within a facility that is not located in an area normally used for staging or storage of material and that has evidence of repeated prior travel by, or is otherwise regularly used by, Vehicles for transporting materials to, from, or within a Facility.
- (14) **MANGANESE-BEARING BULK MATERIAL** means ferrous manganese, manganese silicate, manganese alloy, manganese ore, or any other material from which manganese is extracted or emitted or otherwise becomes airborne.
- (15) **MANGANESE-BEARING BULK MATERIAL FACILITY** is a source, site, or facility where Non-Packaged Manganese-Bearing Bulk Material is stored, loaded, unloaded, stockpiled, handled on-site, blended, Processed, or otherwise managed.
- (16) **MANGANESE LIMIT (ML)** is the concentration of manganese equal to or greater than 0.30 micrograms per cubic meter as averaged over a rolling three-month period.
- (17) **METALLURGICAL COKE, or METCOKE**, is a carbon material resulting from the manufactured purification of multifarious blends of bituminous coal.
- (18) **MOIST MATERIAL** means material with a moisture content of 3% by weight as determined by ASTM analysis, unless another standard is established by an applicable State Permit, Law, Rule or Regulation.
- (19) **NON-PACKAGED** means not fully containerized to prevent the possibility of any dust escaping from the package the entire time the material is in the possession of the owner or operator.
- (20) **OWNER OR OPERATOR** means any person who has legal title to any Facility, who has charge, care or control of any Facility, who is in possession of any Facility or any part thereof, or who is entitled to control or direct the management of any Facility.

- (21) PERSON is any individual, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, political subdivision, state agency, or any other legal entity, or their legal representative, agent or assigns.
- (22) PETROLEUM COKE, or PETCOKE, is a solid carbonaceous residue produced from a coker after cracking and distillation from petroleum refining operations, including such residues produced by petroleum upgraders in addition to petroleum refining.
- (23) PM10 means particulate matter less than or equal to 10 microns in diameter.
- (24) PROCESS OR PROCESSING means any chemical, industrial, commercial, or manufacturing operation or activity that causes, or has the potential to cause, the emission of airborne particles including, but not limited to, blending, mixing, crushing, screening, breaking, wet or dry cleaning, thermal drying, and chemically treating.
- (25) REPORTABLE ACTION LEVEL means the positive difference between the level of PM10 measured at the upwind monitor(s) at a Facility and the level of PM10 measured at the downwind monitor(s) at a Facility that will trigger response activities under a contingency plan pursuant to Section 3.0(3)(fg) as established in the Fugitive Dust Plan submitted by a Facility under Section 3.0(3). The Reportable Action Level may vary based on the value of the difference, and based on the concentration of PM10 detected at the downwind monitor(s) at a Facility.
- (26) TRANSFER POINT is the location at or within a facility where material being moved, carried, or conveyed is dropped or deposited.
- (27) VEHICLE is any car, truck, railcar, or marine vessel.

## **PART B: BULK SOLID MATERIAL FACILITIES**

**3.0 Operating and Maintenance Practices.** Any Facility that Processes, handles on-site, transfers, loads, unloads, stockpiles, or stores Bulk Solid Materials shall comply with all of the following requirements:

- (1) Certificate of Operation – Required. Every Owner or Operator of a Facility subject to these Rules must possess a certificate of operation issued in accordance with Section 11-4-660 of the Code. The Department reserves the right to impose dust control requirements, in addition to the requirements set forth in these Rules, as conditions of the Facility’s certificate of operation, if the Commissioner finds that the Facility has failed to control fugitive dust.
- (2) Fugitive Dust – Prohibited. The Facility Owner or Operator shall prevent the discharge into the atmosphere of visible fugitive dust as specified below:
  - a) Visible Dust. The Facility Owner or Operator shall not cause or allow any Fugitive Dust that is visible beyond the property line of the Facility;
  - b) Opacity Limit. The Facility Owner or Operator shall not cause or allow any Fugitive Dust within the property line of the Facility at any Bulk Solid Material storage pile, Transfer Point, roadway or parking area that exceeds 10% opacity, or other applicable opacity standard set forth in an applicable

State Permit, Law, Rule or Regulation, including but not limited to the Environmental Protection Act and 35 Ill. Admin Code Part 212.

- c) Measurement of Opacity. Opacity shall be determined based on a visual reading in accordance with the measurement method specified in 35 Ill. Admin. Code 212.109 (often referred to as “Method 9 testing”).
- d) Testing of Visible Emissions and Opacity Limits. The Facility Owner or Operator shall, on at least a quarterly basis, periodically perform tests of visible fugitive dust and opacity in accordance with the protocol set forth in the approved Fugitive Dust Plan.

(3) Fugitive Dust Plan – Required. Every Owner or Operator of a Facility subject to these Rules must prepare, submit, and follow a Fugitive Dust Plan. The Fugitive Dust Plan shall be updated on an annual basis and submitted to the Department for review and approval on or before January 31 every year, provided that the first Fugitive Dust Plan shall be due within ninety (90) days of the issuance of these Rules. For Facilities that are constructed or become subject to these Rules after they take effect, the first Fugitive Dust Plan shall be submitted with the Facility’s application for a certificate of operation and before the Facility accepts any Bulk Solid Materials. If the Commissioner finds that the submitted Fugitive Dust Plan is missing any required information or is insufficient to ensure compliance with these Rules, the Commissioner may disapprove the Fugitive Dust Plan and request submission of a modified Fugitive Dust Plan. If the Facility Owner or Operator plans to make any change, modification, or addition to any Facility component described in the most recently submitted Fugitive Dust Plan, the Facility Owner or Operator shall submit an amended Fugitive Dust Plan to the Department for review and approval at least thirty (30) days prior to such change, modification, or addition. The Fugitive Dust Plan shall include, at a minimum, the following components:

- a) A site map, drawn to scale, depicting the following information:
  - i. Facility boundaries;
  - ii. All buildings, Internal Roads and utilities on Facility property;
  - iii. All roadways within one quarter mile of the perimeter of the Facility that are within the City of Chicago and that are used for transport of material to or from the Facility;
  - iv. All potential emissions points at the Facility, including a depiction of the footprints of all Bulk Solid Material storage piles; and
  - v. The locations of all control devices and monitoring devices, including the fugitive dust monitors required under 3.0(4) and the wind speed monitor required under 3.0(6);
- b) A description of the Facility’s operations, including a list of all Bulk Solid Materials handled at the Facility;

- c) A description of the truck routes within one quarter mile of the perimeter of the Facility that are used to transport material to or from the Facility, including an explanation of how dust will be minimized during transport (e.g., travel on paved roads where possible, minimize truck speeds, etc.) and a description of the measures that will be used to ensure trucks are cleaned of loose material before they leave the Facility;
- d) A calculation showing the Facility's maximum total indoor and outdoor Bulk Solid Material storage capacity in tons or cubic yards. In the first Fugitive Dust Plan, due within ninety days of the issuance of these Rules, the calculation shall be certified by signature of an authorized representative of the Owner or Operator and shall be accompanied by evidence of authority to sign on behalf of the Owner or Operator;
- e) A description of all control measures, devices, and technologies to be used to minimize and control Fugitive Dust, a statement certifying that all control measures, devices, and technologies have been properly calibrated and maintained, and a statement that all appropriate Facility staff have been trained on the proper application and operation of all such control measures, devices, and technologies;
- f) A dust monitoring plan that describes:
  - i. The placement, operation, and maintenance of the PM10 monitors required under paragraph 3.0(4); and
  - ii. The schedule and plan for quarterly testing to ensure compliance with the prohibition on Fugitive Dust set forth in 3.0(2). Such testing must be a) conducted by a professional trained and certified to read opacity in accordance with the measurement method specified in 35 Ill. Admin. Code 212.109, and b) conducted during a range of weather conditions to ensure that representative conditions are the Facility are covered;
- g) A contingency plan describing the Owner's or Operator's response activities when the monitors required under paragraph 3.0(4) detect PM10 that exceeds the Reportable Action Level as defined in Section 2.0 above. The response activities should consist of a range of increasingly aggressive measures appropriate to different levels of exceedance;
- h) A contingency plan for an alternative method of monitoring in the event of malfunction or failure of the approved PM10 monitors;
- i) A description of the Facility's recordkeeping system, which shall include a schedule for routine inspection, testing, and maintenance as required in 3.0(18); and
- j) A factsheet or executive summary of the Fugitive Dust Plan designed to inform the public of the Facility's plan to control and minimize fugitive dust.



The Department will post the summary, together with the approved Fugitive Dust Plan, on the City's website.

- (4) Fugitive Dust Monitoring. Unless, pursuant to the Variance procedure set forth in 10.0 below, the Facility Owner or Operator establishes that the Facility's operations do not result in off-site fugitive dust emissions, the Facility Owner or Operator must install, operate, and maintain, according to manufacturer's specifications, permanent, continuous Federal Equivalent Method (FEM) real-time PM10 monitors around the perimeter of the Facility in accordance with the requirements specified below:
- a) During the first year of monitoring, at least four monitors shall be placed at or near the boundaries of the Facility to monitor for Fugitive Dust in the ambient air around the Facility, with monitor locations subject to approval of the Department and consistent with the most recent U.S. Environmental Protection Agency protocols and guidance for ambient air quality monitoring siting criteria;
  - b) During the second and subsequent years of monitoring, monitors shall be placed in accordance with an approved dust monitoring plan that shall be based on the data observed in the first year, with monitors located at a minimum of two upwind and two downwind locations and additional monitors as appropriate depending on the size of the facility and other relevant factors such as variability of wind direction at the site and the proximity of neighborhoods;
  - c) All data collected shall be consistent with units in the National Ambient Air Quality Standards for PM10, and ambient monitoring practices must comply with current U.S. Environmental Protection Agency protocols and guidance for ambient air quality monitoring, including but not limited to those for data completeness, calibration, inspection, maintenance, and site and instrument logs;
  - d) A data logger shall be attached to the monitors to record readings from the monitors, and the Facility Owner or Operator shall notify the Department, in writing within 24 hours, each time the monitors exceed the Reportable Action Level set forth in the Fugitive Dust Plan and any time monitoring equipment has malfunctioned preventing readings or logging of data; and
  - e) The Facility Owner or Operator shall maintain a log of all routine and non-routine maintenance and calibration activities associated with each fugitive dust monitor.
  - f) On a monthly basis, the Facility Owner or Operator shall submit the hourly data for each fugitive dust monitor in an Excel spreadsheet, together with the meteorological station data for the same time period. The monthly monitoring reports shall be submitted within 14 days of the end of the month in which the data was collected, via email to [CDPHPermits@cityofchicago.org](mailto:CDPHPermits@cityofchicago.org), in a format specified by the Department.

- (5) Additional Monitoring. In addition to requiring monitoring pursuant to Section 3.0(4) for Bulk Material Facilities and Section 6.0 for Manganese-Bearing Bulk Material Facilities, the Department may require the Facility Owner or Operator to install, operate, and maintain other monitoring methods, including but not limited to video recording and one or more filter-based monitoring sites. The Department may require such methods when PM10 monitoring does not provide sufficient information regarding fugitive dust for the Commissioner to adequately assess the health impacts of such emissions. Any additional monitoring methods shall meet the specifications set forth in an approved Fugitive Dust Plan. The Department may require that this plan include procedures similar or equivalent to those set forth in Section 6.0 below for Manganese-Bearing Bulk Material Facilities. In the event that additional monitoring is required, the Department will provide a reasonable time period for equipment installation.
- (6) Wind Monitoring. The Facility Owner or Operator shall install, operate and maintain, according to manufacturer's specifications, a weather station or other permanent device to monitor and log wind speed and wind direction at the Facility at an unobstructed, unsheltered area, centrally positioned in relation to the storage piles, and at a minimum height of 10 meters above ground level, unless another height is appropriate pursuant to applicable U.S. Environmental Protection Agency protocols and guidance.
- (7) Conveyors. All conveyors shall be covered or enclosed conveyors in order to reduce or eliminate fugitive dust emissions to the maximum extent practicable.
- (8) Transfer Points. The Facility Owner or Operator shall maintain all material transfer points in compliance with one of the following measures in order to ensure compliance with the opacity limit set forth in 3.0(2)(b):
- a) Total enclosure;
  - b) Water spray system sufficient to control Fugitive Dust emissions during operations;
  - c) Vented to air pollution control equipment which is in full operation and permitted by the Commissioner; or
  - d) Transfer only Moist Material and conduct such transfer in a manner that minimizes the exposed drop.
- (9) Transport. When transport is by truck, the Facility Owner or Operator shall ensure that:
- a) All vehicles and off-road mobile heavy equipment handling or transporting bulk solid material shall adhere to the posted speed limit within the Facility, which shall be no more than 8 miles per hour;

- b) Except for Existing Facilities, material is received or transferred only in truck trailers that, within one quarter mile of the perimeter of the Facility and within the City of Chicago, are driven only on paved roads;
- c) All outgoing material transport trucks, whether loaded or empty, are cleaned so that:
  - i. Any part of any tractor, trailer or tire exterior surface, excluding the inside of the trailers, are free of all loose material; and
  - ii. The material removed by the truck cleaning operation is collected and recycled or otherwise disposed of so that it does not result in Fugitive Dust emissions.
- d) All outgoing material transport trucks, whether loaded or empty, pass through a wheel wash station and pass over rumble strips that will vibrate the trucks and shake off loose material and dust, unless the approved Fugitive Dust Plan specifies other measures to ensure that the trucks will not cause any track-out of materials onto the public way.

(10) Vehicle Covering and other Dust Control. The Facility Owner or Operator shall not load material into any truck trailer, railcar, or barge unless measures are in place to prevent material from escaping from the Vehicle as follows:

- a) Truck trailers must be immediately covered after being loaded in one of the following manners:
  - i. A solid sliding cover or stackable cover on the top of the truck trailer that is kept completely closed except during loading; or
  - ii. A continuous tarp that completely covers the truck trailer and that is installed or constructed to prevent wind from entering over the leading edge of the trailer rim into the interior of the trailer.
- b) Railcars and barges must be loaded in a manner that will control dust through the use of best management practices such as, but not limited to, the use of solid covers, the application of dust suppression agents and/or water, and the profiling of materials to prevent wind erosion.

(11) Vehicle Leaking. Facility owners or operators shall not load material into truck trailers, railcars, or barges such that a vehicle leaks material or liquid that contains material onto Internal Roads or into waterways. If a vehicle leaks material or liquid that contains material onto an Internal Road or into a waterway, the Facility Owner or Operator shall clean the affected road within one hour with a street sweeper or water and shall clean the affected waterway immediately.

(12) Truck Loading and Unloading. For enclosed Coke or Coal Bulk Material storage piles, the Facility Owner or Operator shall conduct material truck loading and unloading only in an enclosed structure that is either equipped with a water spray

system to be used as needed to prevent visible dust emissions or vented to permitted air pollution control equipment that is operated during loading and unloading activities. The ends of the structure shall have overlapping flaps that reduce the opening, sliding doors which shall remain closed except to allow the trucks to enter and leave, or other equally effective devices. For outdoor Bulk Solid Material storage, the Facility Owner or Operator shall ensure that truck loading and unloading occurs in compliance with the requirements for Transfer Points specified in 3.0(78).

- (13) Railcar Loading and Unloading. For enclosed Coke or Coal Bulk Material storage piles, the Facility Owner or Operator shall conduct railcar material loading and unloading only in an enclosed structure that is either equipped with a water spray system operated to prevent visible dust emissions, or vented to permitted air pollution control equipment that is operated during loading and unloading activities. The ends of the structure shall have overlapping flaps, sliding doors or other equally effective devices, which shall remain closed except to allow the railcars to enter and leave. For outdoor Bulk Solid Material storage, the Facility Owner or Operator shall ensure that railcar loading and unloading occurs in compliance with the requirements for Transfer Points specified in 3.0(8).
- (14) Barge and Boat Loading and Unloading. The Facility Owner or Operator shall conduct barge/boat material loading only through an enclosed chute that uses a water spray system, or an air pollution control system or other mechanism described in the approved Fugitive Dust Plan, in order to control Fugitive Dust emissions during operations. Barge unloading shall be conducted in a manner that will minimize dust in accordance with measures set forth in the Fugitive Dust Plan and in compliance with the requirements for Transfer Points specified in 3.0(8).
- (15) Paving. The Facility Owner or Operator shall pave, with a durable material that is not susceptible to becoming windborne, and in a manner sufficient to bear the expected level of traffic at the Facility, and maintain as paved all Internal Roads within the Facility that are used for transporting or moving material.
- (16) Roadway Cleaning. In order to clean roads of spilled and tracked material, the Facility Owner or Operator shall use a street sweeper to clean any paved road that is used to transport material inside or within one quarter mile of the perimeter of the Facility and shall comply with all of the following requirements:
  - a) The street sweeper shall be equipped with a water spray, for use during non-freezing weather, and a vacuum system to prevent Fugitive Dust during street sweeping;
  - b) The street sweeping shall be sufficient so that not more than 4 hours elapses between each street sweeper cleaning or after every 100 truck material receipts or dispatches, but not less than one time daily when the Facility is open for business, unless the roads are free and clear of any material transported to or from the Facility; and

- c) Each 24 hour day, the day beginning at 12:01 A.M., the Facility Owner or Operator shall document whether for that day the Facility Owner or Operator is street sweeping every four hours or every 100 trucks, or whether the roads are free and clear of any material transported to or from the Facility. The record shall show the date and time when street sweeping was performed and the truck count, as applicable.

(17) Spilled Material. The Facility Owner or Operator shall maintain all areas within the Facility not regularly used for storage of material free of any spilled or misplaced material by removing such material by the end of each work shift.

(18) Recordkeeping. The Facility Owner or Operator shall keep and maintain Facility logs as follows:

- a) Record daily, all cleaning and street sweeping;
- b) Record daily, the weather conditions, including wind speed and direction, documented by the weather station or other device installed pursuant to 3.0(6);
- c) Record the application of water and/or Chemical Stabilizer pursuant to paragraphs 3.0(7), 3.0(9), 3.0(11), 3.0(12), 3.0(13), and/or 5.0(7), as applicable, and note any instances when such application is suspended for any reason, including but not limited to, weather conditions;
- d) Record any instances when activities are suspended due to high winds as required by paragraph 7.0(4), as applicable;
- e) Record the results of the continuous monitoring for Fugitive Dust as required in paragraph 3.0(4), indicate any instances when a monitor detects Fugitive Dust that exceeds the Reportable Action Level set forth in the Fugitive Dust Plan, and record the action taken to respond to the detection of Fugitive Dust;
- f) Record quarterly, the results of the tests of visual Fugitive Dust and opacity as required in paragraph 3.0(2)(d);
- g) Record the results of the filter-based metals monitoring as required in paragraph 3.0(5) or 6.0, as applicable;
- h) Maintain a schedule for routine inspection, maintenance, and testing of all control measures, devices, and technologies, including a schedule for inspection of Bulk Solid Material piles, inspection of all monitors, and inspection of off-site areas for the presence of dust; and identify the person or persons responsible for such inspections, maintenance, and testing;
- i) All records required to be kept pursuant to these Rules shall be kept and maintained at the Facility and be available for inspection for a minimum of three (3) years from the date the record is created.

## PART C: COKE OR COAL BULK MATERIAL FACILITIES

**4.0 Enclosure of Coke and Coal.** The Owner or Operator of a Coke or Coal Bulk Material Facility shall maintain all Coke and Coal in fully enclosed structures in accordance with the enclosure requirements set forth in 4.0(2).

(1) Enclosure Plan. The owner or operator of any Coke or Coal Bulk Material Facility shall submit to the Department for review and approval a plan (the “Enclosure Plan”) for total enclosure of all coke piles, coal piles, conveyors, Transfer Points, and Processing areas at the Facility. The Enclosure Plan shall include:

a) A construction schedule prepared using the critical path method for completion of engineering, procurement, permitting, and construction of the enclosure; and

b) An Interim Fugitive Dust Plan that shall include, at a minimum, the following components:

i. A site map, drawn to scale, depicting the following information:

1. Facility boundaries;

2. All buildings, Internal Roadways and utilities on Facility property;

3. All roadways within one quarter mile of the perimeter of the Facility that are within the City of Chicago and that are used for transport of material to or from the Facility;

4. All potential emissions points at the Facility, including a depiction of the footprints of all Coke or Coal Bulk Material piles;

5. The locations of all control devices and monitoring devices, including the fugitive dust monitors required under 3.0(4) and the wind speed monitor required under 3.0(6);

ii. A site map, drawn to scale, depicting the boundaries of any associated Coke or Coal Bulk Material Facility owned or operated by the Owner or Operator at which the Owner or Operator intends to temporarily store Coke or Coal Bulk Materials during implementation of the Enclosure Plan, and including all the information required in 4.0(1)(b)(i) above;

iii. A description of the Facility’s operations, including a list of all Coke or Coal Bulk Materials handled at the Facility or any associated Coke or Coal Bulk Material Facility;

iv. A description of all control measures, devices, and technologies to be used to minimize and control Fugitive Dust during transport to or from the Facility and any associated Coke or Coal Bulk Material Facility while

materials are staged, loaded, unloaded, Processed, or otherwise handled at the Facility and any associated Coke or Coal Bulk Material Facility;

- v. A dust monitoring plan that describes the placement, operation, and maintenance of the PM10 monitors required under paragraph 3.0(4), including an explanation of the Reportable Action Level;
- vi. A contingency plan describing the Owner's or Operator's response activities when the monitors required under paragraph 3.0(4) detect PM10 that exceeds the Reportable Action Level established pursuant to 3.0(3)(e)(i) above, and a contingency plan for an alternative method of monitoring in the event of malfunction or failure of the approved PM10 monitors; and
- vii. A description of the Facility's recordkeeping system, which shall include a schedule for routine inspection and maintenance of the control measures, devices, and technologies, and the identity of the person or persons responsible for such maintenance and testing.

(2) Enclosure Requirements. Fully enclosed structures or buildings for all Coke and Coal handling, storage, and transfer operations must meet the following requirements:

- a) They shall be completely roofed and walled, entirely surround Coke or Coal Bulk Materials, and be designed, permitted, and constructed in accordance with applicable Building Code requirements.
- b) They shall be properly maintained.
- c) They shall use a permitted air pollution control system and/or have the ability to apply water to materials within the structure or building in order to control Fugitive Dust emissions sufficiently at designed vents and at any other openings, including entrances and exits; and
- d) Any entrances or exits for material or Vehicles shall have overlapping flaps or sliding doors, which shall remain closed except to allow material or Vehicles to enter and leave or to allow people to enter and exit. Devices other than overlapping flaps or sliding doors may be used instead if the Fugitive Dust Plan demonstrates that the performance for dust control at the openings will be equivalent or superior to that of overlapping flaps and sliding doors.

(3) Interim Requirements. During implementation of the Enclosure Plan, Coke and Coal may be maintained in outdoor stockpiles subject to the following:

- a) The approved Interim Fugitive Dust Plan required in 4.0(1)(b);
- b) The requirements for all Bulk Storage Material Facilities set forth in Part B above; and

- c) The requirements for outdoor storage of bulk solid materials set forth in Part D below.

## **PART D: MANGANESE-BEARING BULK MATERIAL FACILITY OPERATIONS**

**5.0 Enclosure of Manganese-Bearing Bulk Material.** The Owner or Operator of a Manganese-Bearing Bulk Material Facility shall maintain all Non-Packaged Manganese-Bearing Bulk Material in fully enclosed structures in accordance with the enclosure requirements set forth in 5.0(2) below. The operations covered by this full enclosure requirement include, but are not limited to, all piles, conveyors, transfer points, and processing areas.

- (1) Enclosure Plan. The owner or operator of any Manganese-Bearing Bulk Material Facility shall submit to the Department for review and approval a plan (the “Enclosure Plan”) for total enclosure of all Manganese-Bearing Bulk Material piles, conveyors, Transfer Points, and Processing areas at the Facility. The Enclosure Plan shall include:
  - a) For Facilities where a structure adequate to comply with these Rules does not already exist, a construction schedule prepared using the critical path method for completion of engineering, procurement, permitting, and construction of the enclosure; and
  - b) An Interim Fugitive Dust Plan that shall include, at a minimum, the following components:
    - i. A site map, drawn to scale, depicting the following information:
      - 1. Facility boundaries;
      - 2. All buildings, Internal Roads, and utilities on Facility property;
      - 3. All roadways within one quarter mile of the perimeter of the Facility that are within the City of Chicago and that are used for transport of material to or from the Facility;
      - 4. All potential emissions points at the Facility, including a depiction of the footprints of all Manganese-Bearing Bulk Material piles;
      - 5. The locations of all control devices and monitoring devices, including the fugitive dust monitors required under 3.0(4) and the wind speed monitor required under 3.0(5);
    - ii. A site map, drawn to scale, depicting the boundaries of any associated Manganese-Bearing Bulk Material Facility owned or operated by the Owner or Operator at which the Owner or Operator intends to temporarily store Manganese-Bearing Bulk Material during implementation of the Enclosure Plan, and including all the information required in 5.0(1)(b)(i) above;



- iii. A description of the Facility's operations, including a list of all Manganese-Bearing Bulk Material handled at the Facility or any associated Manganese-Bearing Bulk Material Facility;
- iv. A description of all control measures, devices, and technologies to be used to minimize and control Fugitive Dust during transport to or from the Facility and any associated Manganese-Bearing Bulk Material Facility while materials are staged, loaded, unloaded, Processed, or otherwise handled at the Facility and any associated Manganese-Bearing Bulk Material Facility;
- v. A dust monitoring plan that describes the placement, operation, and maintenance of the PM10 monitors required under paragraph 3.0(4), including an explanation of the Reportable Action Level;
- vi. A contingency plan describing the Owner's or Operator's response activities when the monitors required under paragraph 3.0(4) detect PM10 that exceeds the Reportable Action Level established pursuant to 3.0(3)(f)(i) above, and a contingency plan for an alternative method of monitoring in the event of malfunction or failure of the approved PM10 monitors; and
- vii. A description of the Facility's recordkeeping system, which shall include a schedule for routine inspection and maintenance of the control measures, devices, and technologies, and the identity of the person or persons responsible for such maintenance and testing.

(2) Enclosure Requirements. Fully enclosed structures or buildings for all Manganese-Bearing Bulk Material handling, storage, and transfer operations must meet the following requirements:

- a) They shall be completely roofed and walled, entirely surround Manganese-Bearing Bulk Material, and be designed, permitted and constructed in accordance with applicable Building Code requirements.
- b) They shall be properly maintained.
- c) They shall use a permitted air pollution control system and/or have the ability to apply water to materials within a structure in order to control Fugitive Dust emissions sufficiently at designed vents and at any other openings, including entrances and exits; and
- d) Any entrances or exits for material or Vehicles shall have overlapping flaps or sliding doors, which shall remain closed except to allow material or Vehicles to enter and leave or to allow people to enter and exit. Devices other than overlapping flaps or sliding doors may be used if the Fugitive Dust Plan demonstrates that the performance for dust control at the openings will be equivalent or superior to that of the overlapping flaps or sliding doors.

(3) Enclosure Cleaning. The Facility Owner or Operator must take measures to prevent manganese-containing fugitive dust from escaping the enclosed structure by maintaining good housekeeping practices. These practices must include, but are not limited to, the following:

a) Sweep the aisles at least once per shift on days when material is being transferred or otherwise handled; and

b) Water exterior doorways, including the floor, road, or pavement inside, outside, and near the doorways, at least once per shift on days when material is being transferred or otherwise handled.

#### **6.0 Filter-Based Metals Monitoring at Manganese-Bearing Bulk Material Facilities.**

The Facility Owner or Operator of a Manganese-Bearing Bulk Material Facility must install, operate, and maintain, according to manufacturer's specifications, one Federal Reference Method (FRM) PM10 filter-based monitoring site at the Facility in accordance with the requirements specified below:

a) The Facility Owner or Operator must submit to the Department, for review and approval, a metals monitoring plan that sets forth a proposed location for the FRM monitor. Once approved, the manganese monitoring plan shall become a part of the Facility's Fugitive Dust Plan. The metals monitoring plan shall include a description of the placement, operation, and maintenance of the FRM monitor required under this section.

b) The FRM monitor shall be placed at a location specified in the approved metals monitoring plan required under 6.0(a) and consistent with the most recent U.S. Environmental Protection Agency protocols and guidance for ambient air quality monitoring siting criteria.

c) PM10 concentrations from filter-based sampling shall be determined according to 40 CFR 50, Appendix J to Part 50 – "Reference Method for the Determination of Particulate Matter as PM10 in the Atmosphere."

d) The PM10 filter-based instruments shall meet the specifications of FRM monitors, and the filter-based sampling shall follow the 3-day EPA Monitoring Schedule for 2018, each as posted on the U.S. Environmental Protection Agency website.

e) The PM10 filters collected will undergo gravimetric analysis and determination of the concentration of manganese in the collected sample. In addition, the collected sample will undergo gravimetric analysis and determination of the concentration of other toxic or hazardous substances, which may include arsenic, cadmium, chromium, lead, nickel, and vanadium, if the Department determines that the materials handled at the Facility are likely to contain such substances. The analyses and determinations must be specified in the approved metals monitoring plan and follow a current FRM/FEM laboratory method listed by the U.S. Environmental Protection Agency.

- f) All data collected shall be consistent with units in the National Ambient Air Quality Standards for PM<sub>10</sub>, and ambient monitoring practices must comply with the most recent U.S. Environmental Protection Agency protocols and guidance for ambient air quality monitoring, including but not limited to those for quality assurance, data completeness, calibration, inspection, maintenance, and site and instrument logs.
- g) The Facility Owner or Operator shall maintain a log of all routine and non-routine maintenance and calibration activities associated with each fugitive dust monitor.
- h) Manganese concentrations as monitored under this section shall not exceed the ML. Exceedance of the ML constitutes a condition detrimental to health and is a violation of Section 7-28-060 of the Code.
- i) On a monthly basis, the Facility Owner or Operator shall submit the raw laboratory data from the FRM filter-based PM<sub>10</sub> monitor. The monthly filter-based monitoring reports shall be submitted within 28 days of the end of the month in which the data was collected, via email to [CDPHPermits@cityofchicago.org](mailto:CDPHPermits@cityofchicago.org), in a format specified by the Department.

**PART E: OUTDOOR STORAGE OF BULK SOLID MATERIALS OTHER THAN COKE OR COAL**

**7.0 Outdoor Bulk Solid Material Storage.** The Facility Owner or Operator may maintain outdoor Bulk Solid Material storage if the Facility meets all of the following requirements.

- (1) Setbacks. Bulk material storage piles shall be located in accordance with setback requirements established in the Chicago Zoning Ordinance.
- (2) Height Limit. The vertical distance from grade immediately adjacent to a pile to the highest point of that pile shall be no greater than 30 feet. The Facility Owner or Operator shall install and maintain a post or other visible measurement marker to demonstrate the height of each pile.
- (3) Protection of Waterways. Outdoor storage piles shall be set back at least 50 feet from any waterway, except that material in the process of being unloaded from or loaded to a barge may be located within 50 feet of a waterway for a period of time not to exceed 24 hours so long as no materials will fall, erode, be thrown, discharged, dumped, disposed of, or deposited in the waterway at any time.
- (4) High Wind Events. Disturbance of outdoor Bulk Solid Material piles, including but not limited to outdoor loading, unloading, and any other Processing, shall be suspended during High Wind Conditions, as detected by the wind monitor required under 3.0(6), unless alternate measures are implemented to effectively control dust in accordance with the approved Fugitive Dust Control Plan.

(5) Dust Suppressant System. The Facility Owner or Operator must apply Chemical Stabilizers and/or maintain and operate water spray bars, a misting system, water spray systems and/or water trucks to prevent Fugitive Dust emissions in violation of 3.0(2), in accordance with the following requirements:

- a) Except pursuant to 7.0(5)(c) below, the dust suppressant system shall be operable and able to dispense water, water-based solutions, and/or Chemical Stabilizers at all times unless all bulk storage material piles are covered.
- b) When the temperature falls below 32 degrees Fahrenheit, the Facility must use Chemical Stabilizers and/or water heating systems to ensure that dust suppression continues.
- c) If any part of the dust suppressant system is undergoing maintenance or otherwise becomes inoperable, the Facility Owner or Operator must suspend disturbance of Bulk Material piles that would be controlled by the inoperable portion of the dust suppressant system until such time as the system becomes operable again.

(6) Runoff Management. The Facility Owner or Operator shall install and maintain stormwater management, erosion and sediment controls sufficient to:

- a) Prevent runoff from the pile onto neighboring parcels, public ways, or any water bodies;
- b) Prevent runoff from entering into public sewers or any entry points into the stormwater collection system, unless such discharges are in compliance with all applicable discharge permits;
- c) Address timely and effective ways to respond to spills and/or visible migration of pollutants that could occur onsite or offsite;
- d) Demonstrate that the site is graded in such a way as to ensure proper drainage and to prevent pooling of water; and
- e) Ensure compliance with an approved Stormwater Management Plan pursuant to Chapter 11-18 of the Municipal Code, as applicable.

## **PART F: COMPLIANCE**

**8.0 Implementation Schedule.** These Rules shall take effect in three phases as follows:

- (1) Parts A, B, C, E, and F shall take effect immediately upon issuance of these Rules;
- (2) Part D, Section 6.0(a) shall take effect within thirty days.
- (3) All other Sections of Part D shall take effect ninety days from the issuance of these Rules.

The Commissioner may, at the Commissioner's sole discretion, grant extensions of the timeframes provided, in accordance with the Variance provisions set forth in 10.0 below, upon request and only for good cause shown by the Facility Owner or Operator.

**9.0 Penalties.** In accordance with Section 11-4-810 of the Code, any person who violates any provision of these Rules shall be fined not less than \$1,000 nor more than \$5,000. Each day of any violation of these Rules shall constitute a separate and distinct offense, and for each such violation the fines imposed shall be assessed per day.

### **10.0 Variance from Rules.**

- (1) Applications for a Variance. The Facility Owner or Operator may apply to the Commissioner for a variance from any Regulation set forth in Parts B, D, E, or F above in accordance with the provisions set forth in 10.0(2) below.
- (2) Requirements of the Variance Application. The request for a variance must be in writing and must set forth, in detail, all of the following:
  - a) A statement identifying the regulation or requirement from which the variance is requested;
  - b) A description of the process or activity for which the variance is requested, including pertinent data on location, size, and the population and geographic area affected by, or potentially affected by, the process or activity;
  - c) The quantity and types of materials used in the process or activity in connection with which the variance is requested, as appropriate;
  - d) A demonstration that issuance of the variance will not create a public nuisance or adversely impact the surrounding area, surrounding environment, or surrounding property uses;
  - e) A statement explaining:
    - i. Why compliance with the Rules imposes an arbitrary or unreasonable hardship;
    - ii. Why compliance cannot be accomplished during the required timeframe due to events beyond the Facility Owner or Operator's control such as permitting delays or natural disasters; or
    - iii. Why the proposed alternative measure is preferable.
  - f) A description of the proposed methods to achieve compliance with the Rules and a timetable for achieving that compliance, if applicable;
  - g) A discussion of alternate methods of compliance and of the factors influencing the choice of applying for a variance;

- h) A statement regarding the person's current status as related to the subject matter of the variance request;
- i) For any request for a variance from the enclosure deadline set forth in 6.0(5), the applicant must submit all of the information required in sections 10.0(2)(a) through (h) above and shall also submit 1) fugitive dust monitoring reports for the four months prior to the date of the variance application and 2) in the event that the variance is granted, monthly fugitive dust monitoring reports for the duration of the variance which shall be due fourteen (14) days following the end of the month which the report covers. The monthly fugitive dust monitoring reports required by this section shall be submitted in an electronic format as specified in the Variance.

(3) Criteria for Reviewing Applications.

- a) In determining whether to grant a variance, the Commissioner will consider public comments received pursuant to 10.0(4) and will evaluate the information provided in the application to meet the requirements of 10.0(2). Particular consideration will be given to the following information:
  - i. Inclusion of a definite compliance program;
  - ii. Evaluation of all reasonable alternatives for compliance;
  - iii. Demonstration that any adverse impacts will be minimal.
- b) The Commissioner may deny the variance if the application for the variance is incomplete or if the application is outside the scope of relief provided by variances.
- c) The Commissioner may grant a variance in whole or in part, and may attach reasonable conditions to the variance, or require alternative measures, to ensure minimization of any adverse impacts and to accomplish the purposes of Chapter 11-4 of the Code.
- d) Issuance of a variance is at the sole discretion of the Commissioner. A variance may be revoked at any time if the Commissioner finds that operation of the Facility is creating a public nuisance or otherwise adversely impacting the surrounding area, surrounding environment, or surrounding property uses.

- (4) Change in Facility Operations. If any part of the Facility's operation that is the subject of the variance expands or changes, then, at least thirty (30) days prior to the expansion or change in operation, the Facility Owner or Operator shall notify the Commissioner and either a) apply for a new variance or b) notify the Commissioner of the Owner or Operator's intent to comply with the regulation(s) that were the subject of the variance, in which case the variance will automatically terminate.

(5) Notice of Variance Applications. The Commissioner will not grant any variance under this section until members of the public have had an opportunity to submit written comments on the variance application. Public notice of all variance applications will be provided by publication in a newspaper of general circulation published within the city and by publication on the city's website. The Commissioner will accept written comments for a period of not less than thirty (30) days from the date of the notice.

**11.0 Other Laws.** These Rules in no way affect the responsibilities of the Facility owner and operator to comply with all other applicable federal, state or City laws, ordinances, or Rules, including but not limited to those regarding the construction, operation, maintenance, and closure of the Facility.

**12.0 Severability.** If any clause, sentence, paragraph, subsection, Section, or Part of these Rules is adjudged by any court of competent jurisdiction to be invalid, that judgment shall not affect, impair or invalidate the remainder of these Rules, but shall be confined in its operation to the clause, sentence, paragraph, subsection, Section or Part to which the judgment is rendered.