

**City of Chicago  
Department of Public Health**

**Official Response to Public Comments  
on Proposed Amendments to Rules**

**For the Handling and Storage of Bulk Material Piles**

**January 25, 2019**

**I. Purpose**

The purpose of this document is to respond to the issues and questions raised by commenters on the Proposed Rules for the Handling and Storage of Bulk Material Piles, issued by the Chicago Department of Public Health (CDPH) on April 18, 2018. This document also explains how the Proposed Rules were modified for the Final Rules. The Final Rules are attached to this document and can also be found at [www.cityofchicago.org/EnvironmentalRules](http://www.cityofchicago.org/EnvironmentalRules).

**II. Background**

On April 18, 2018, CDPH published a notice and solicitation of written comments with respect to its Proposed Rules pursuant to Sections 2-112-160(b), 11-4-760(e), 11-4-770, and 11-4-800 of the Municipal Code of Chicago (MCC). The purpose of the Proposed Rules was to enhance the Original Rules that were promulgated on March 13, 2014 and that prescribed practices to minimize emissions of airborne particulate matter from the storage, blending, handling, and processing of Bulk Solid Materials such as ores, coal, petroleum coke (“petcoke”), and metallurgical coke (“metcoke”). The Proposed Rules included specific requirements for facilities that handle manganese-bearing bulk material, as well as other changes.

The public comment period on the Proposed Rules was originally scheduled to close on May 18, 2018, but was extended to June 13, 2018. CDPH received five submissions of written comments: one from 10<sup>th</sup> Ward Alderwoman Susan Sadlowski Garza; two from affected businesses, Watco Companies and American Zinc Recycling (AZR); one from the Alliance for the Great Lakes; and one submitted on behalf of eleven health and environmental advocacy non-governmental

organizations (“NGOs”)<sup>1</sup>. In addition to written comments, CDPH received verbal comments at a public community hearing held on June 6, 2018. A complete compendium of all written comments, as well as a transcript from the public hearing, is available on CDPH’s website at [www.cityofchicago.org/EnvironmentalRules](http://www.cityofchicago.org/EnvironmentalRules).

### **III. Summary of Comments Followed by the City’s Response**

This document summarizes the substantive comments received by the City and includes CDPH’s response to each summarized comment. In cases where multiple comments addressed the same issue, this document summarizes and responds to a comment that is representative of that issue. Some of the comments included specific suggestions for revisions to the Proposed Rules, while others were more general. For the most part, this document focuses on comments suggesting revisions. The Final Rules are attached to this document and can also be found at [www.cityofchicago.org/EnvironmentalRules](http://www.cityofchicago.org/EnvironmentalRules).

The comments and responses below are presented in six categories: Scope of the Rules, Specific Operational Requirements, Fugitive Dust Plans, Air Monitoring, Enclosure Requirement, and Variance Process. Section numbers refer to the numbering as they appeared in the Proposed Rules, unless otherwise noted.

#### **A. Scope of the Rules**

1) Covered pollutants. Susan Sadlowski Garza, Alderwoman of 10<sup>th</sup> Ward, wrote that she appreciates the proposed changes but is concerned with new potentially-polluting firms expanding to the south and west side industrial corridors. Therefore, she believes that CDPH should partner with the Department of Planning and Development (DPD) to adopt a comprehensive approach to evaluate the overall health burden of bulk material handlers and other industrial facilities. She further stated that the rules should expand CDPH’s scope to focus on pollutants in addition to manganese, especially fine particulate matter.

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<sup>1</sup> The NGOs consisted of the Natural Resources Defense Council (“NRDC”); the Southeast Environmental Task Force (“SETF”); the Southeast Side Coalition to Ban Petcoke (“SSCBP”); National Nurses United-Illinois; the Midwest SOARRING Foundation; Moms Clean Air Force; the Peoples’ Lobby Education Institute; Reclaim Chicago; the Chicago Environmental Justice Network, whose members include the Little Village Environmental Justice Organization, People for Community Recovery, Blacks in Green, Ixchel, and SETF; the Respiratory Health Association; and Lebanon Church.

The NGOs likewise stated that, instead of focusing on one pollutant, the rules should address the full burden of the toxic materials that are affecting the Southeast Side and other Chicago communities. They stated that the City should conduct additional assessments to understand the nature and extent of the risks posed by hazardous air pollutants other than manganese as well as contaminated soil and other sources of exposure to harmful substances. In addition, the NGOs stated that CDPH should eliminate the exemption for construction and demolition (C&D) materials because the handling of these materials creates harmful dust, and current state and federal requirements are inadequate to address the problem.

The NGOs further stated that the City should explore citywide environmental justice-based reforms. They also stated that the City should assess past environmental burdens on the health of these communities and provide health services and other resources to aid in identifying and rectifying health conditions. Alliance for the Great Lakes similarly stated the City should adopt a comprehensive plan to address environmental justice burdens on the Southeast Side.

Finally, the NGOs, as well as many of the residents who testified at the public hearing, stated that the City should ban, or impose a moratorium on, all handling of manganese-bearing substances adjacent to residential areas.

City Response: The Proposed Rules would continue to regulate all bulk materials and require controls for all fugitive dust generated by the handling of such materials, including multiple pollutants beyond manganese. The Original Rules required facilities to implement best management practices and operate in a way that will not adversely impact surrounding residents, and the Final Rules will maintain this requirement. Moreover, the City agrees that environmental justice issues are important to protecting health and promoting equity. Therefore, CDPH regularly coordinates with DPD on policy and planning issues as well as on the development of standards for new facilities. The City aims to continually enhance this work going forward and is receptive to input on how to do it most effectively.

CDPH has permitting programs for facilities that handle C&D, including transfer stations, recycling facilities, and both temporary and permanent reprocessing facilities. These facilities are subject to ordinances and permit conditions that require them to control dust and prevent nuisances. In addition, CDPH is in the process of creating new rules to further address dust from C&D reprocessing facilities (i.e. rock crushing operations), as well as creating separate

recycling rules affecting metal recyclers. These steps will build upon the Bulk Material Rules, which set forth requirements for a specific type of facility.

Finally, in consultation with other departments and regulatory agencies, CDPH continues to review all options to respond to manganese concerns in the southeast Chicago area. As the stringent manganese controls set forth in the Final Rules are implemented, CDPH is committed to working with DPD, residents, businesses, and other partners to continue developing needed policies.

## 2) Definition of *Manganese-Bearing Bulk Materials*.

The NGOs stated that CDPH should remove the 1% threshold from the definition of “manganese-bearing bulk materials.” They said it is not clear why such a threshold is necessary or carves out a de minimis source of manganese dust: relatively low-manganese-content materials can be a problem if handled in larger quantities and without adequate controls. AZR, by contrast, stated that the de minimis threshold should be set at 4% instead of 1%, which would exempt their “iron-rich material” product from the definition.

City Response: The Final Rules no longer contain a fixed de minimis level in the definition of manganese-bearing bulk materials. The presumption is that any level of manganese is covered. However, if a company believes its material contains a level of manganese that is so low as to be negligible, whether the manganese content is 1% or 4%, the company may apply for a variance and submit supporting documentation that persuasively demonstrates why there should be an exemption. In this way, CPDH and the public can be assured that such an exemption will not create a public nuisance or adversely impact the surrounding area, environment, or property uses.

## **B. Specific Operational Requirements**

1) Digital videotaping. The NGOs stated that the Final Rules should expressly recognize the Commissioner’s authority to require digital videotaping of certain operations as part of a facility’s dust plan, and mandate digital videotaping of unenclosed vehicle transfer points and other points of concern. They noted that a consent decree between the U.S. EPA and S.H. Bell

Company recognized that videotaping operations of concern is a valuable technology for helping to ensure control of problem sources at S.H. Bell's East Liverpool, Ohio, facility.

City Response: CDPH agrees that digital video recording can be useful as a source of additional information about various operations. For example, if there is uncertainty about whether or not dust control measures are effective during particular activities, such as barge unloading, and if it is feasible to video record the operation, then the video could be reviewed in the event the monitors show an elevated reading. As such, CDPH has added the option to require video recording in Section 3.0(5) of the Final Rules, regarding "Additional Monitoring." (This provision is further discussed in Section (C)(5) below.)

2) Sweeping and watering in storage buildings. Again citing the East Liverpool consent decree, the NGOs stated that the Final Rules should require sweeping of aisles and watering of doorways of indoor manganese storage facilities. They stated that these activities should be required at least once per shift when the indoor facility is in use for handling or processing, and once per operating day when in use solely for storage. They further stated the rules should include associated recordkeeping and reporting requirements.

City Response: CDPH agrees that dust generated indoors needs to be controlled to prevent it from escaping the building and causing fugitive emissions, particularly when it comes to materials of concern such as manganese. Accordingly, a new requirement in this regard has been added to the Manganese Enclosure section as paragraph 5.0(3), "Enclosure Cleaning," in the Final Rules.

3) Tarping of trucks. The NGOs stated that the Final Rules should require tarping of trucks containing manganese in areas adjacent to truck load-out sheds immediately after being loaded, not just before leaving the facility as required under the Original and Proposed Rules.

City Response: CDPH agrees that dust blowing from vehicles can be a problem before a vehicle leaves the facility. Accordingly, Rule 3.0(10), regarding vehicle covering, has been

amended to require truck trailers to be immediately covered after being loaded. This requirement applies to any bulk material, not just manganese.

4) Installation of overlapping flaps or sliding doors. Watco stated that it would not be practical or safe to install overlapping flaps, sliding doors, or other equivalent air pollution controls at facility entrances and exits. They stated that, when in operation, vehicles move in and out of the warehouse at three-to-five second intervals; therefore, the addition of sliding doors or anything similar would cause a “high safety hazard.” Watco therefore requested that the Final Rules specify that the requirement to fully enclose (including, presumably, the closure of doors) applies only when the facility is not in operation. They further recommended that the term, “in operation,” be clarified in this regard.

City Response: Section 5.0(2)(f) in the Proposed Rules (renumbered as 5.0(2)(c) in the Final Rules) provides that doors must remain closed “except to allow material or Vehicles to enter and leave or to allow people to enter and exit.” This provision allows doors to remain open for safety when vehicles are coming or going. In addition, the Final Rules provide flexibility regarding the type of door covering or other method to control dust at such openings so that each facility operator can determine what works best for its operations, as long as any alternative method is at least as effective in preventing dust from escaping. CDPH also notes that Watco recently installed an automatic roll-up door, which can quickly go up and down after a truck passes through and demonstrates that complying with the Proposed Rules is feasible.

5) Recordkeeping. AZR stated that Section 3.0(18) should include a maximum reasonable time period for retaining the required records, such as the three-year period required for hazardous waste manifests.

City Response: The Original and Proposed Rules include a three-year (minimum) requirement for records retention in Section 3.0(18)(i). After three years, for purposes of compliance with the Bulk Material Rules, a facility no longer needs to maintain such records.

## **B. Fugitive Dust Plans**

The Original Rules required facility owners or operators to prepare, submit, and follow a Fugitive Dust Plan (FDP), which must contain key information, be updated on an annual basis, and be submitted to CDPH for review and approval. The Rules further provided that the plans must be amended at least 30 days prior to any change, modification, or addition to any facility component. As described below, an important element of the FDP is a dust monitoring plan. The Proposed Rules maintained these provisions while also requiring installation of Federal Reference Method (FRM) filter-based monitors for manganese-bearing bulk material facilities in addition to PM10 monitors.

1) Submission of revised FDPs. AZR and Watco requested clarification regarding the requirement to submit a revised Fugitive Dust Plan that includes a proposed location for the FRM monitor. Watco questioned whether facilities must submit an amended FDP in circumstances where the initial plan has been previously submitted, or whether the facility should submit a new FDP within 30 days of the installation of the FRM PM10 monitor. AZR requested that paragraph 8.0(1) in the Proposed Rules be changed so the effective date for submission of the revised plan would not take effect immediately. AZR proposed a 60-day deadline to allow time for the company to install the FRM monitor at the approved location. AZR further stated that the Manganese-Bearing Materials Dust Plan requirements should be moved to Part D of the rules, so that all applicable requirements for these types of materials are contained in one part.

City Response: The Final Rules, in Section 3.0(3), now clarify that any change to a facility component described in a submitted FDP requires an amended FDP, even if the existing FDP has not been formally approved. In addition, CDPH agrees that it makes sense to extend the effective date for submission of amended FDPs that include proposed locations for the FRM monitor and to provide time for installation of the new monitor. Accordingly, the Manganese-Bearing Materials Dust Plan requirements have been moved to Part D of the Final Rules, meaning that installation of the new monitor must occur with 90 days, as provided in the Implementation Schedule set forth in Section 8.0. This time frame is 30 days longer than requested. However, the Implementation Schedule also provides that the dust monitoring plan,

with the proposed location for siting of the new monitor, is due within 30 days of the effective date of the Final Rules, as opposed to the 60 days requested.

2) Fugitive Dust Plan review process. The NGOs requested that the Final Rules provide more structure around the Fugitive Dust Plans. In particular, they stated that proposed dust plans should be subject to public review and comment and that there should be deadlines for the City's determinations on the plans.

City Response: The Original and Proposed Rules required facilities to provide 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 Original and Proposed Rules went on to state that CDPH "will post the summary, together with the approved Fugitive Dust Plan, on the City's website." In addition, the Final Rules governing the facilities' obligations have been developed with public participation. The FDPs do not change these obligations. FDPs are primarily technical documents that detail the methods a company will employ to achieve compliance. As with other regulatory bodies, CDPH must be responsible for policy implementation at this level of detail.

As of the date of this document, the Department has not formally approved all FDPs that have been submitted under the Bulk Material Rules. However, it is understood and expected that the facilities must follow the plans whether or not they have been formally approved by CDPH. CDPH still conducts regular inspections, reviews monitoring data, and responds to complaints. While a facility's FDP is under review, CDPH continues to monitor the facility to ensure compliance. Furthermore, CDPH needs the flexibility to prioritize responsibilities and address the most urgent issues before it in a timely manner; deadlines would compromise that flexibility.

### **C. Air Monitoring**

In the Original Rules, facility owners and operators were required to monitor for fugitive dust by installing and operating at least four PM10 monitors, with one along each side facing the four cardinal directions around the facility. In the Proposed Rules, the monitoring requirement would not have applied to facilities that are completely enclosed, including all storage and transfer of

bulk materials. In addition, the Proposed Rules introduced a new filter-based monitoring requirement for facilities that handle manganese-bearing material, unless the material is fully enclosed. As described below, the Final Rules include some changes to the proposed monitoring requirements, including a removal of the option to enclose or monitor.

1) Fugitive dust monitoring at fully-enclosed facilities. The NGOs and public commenters, as well as Alderwoman Garza, commented that PM10 monitors should be required for all bulk material facilities, whether enclosed or not. As stated by the NGOs, the rules “should not allow facilities, manganese-handling or otherwise, to choose between full enclosure or monitoring; both enclosure, as a means of control, and monitoring, as a means of assessment, are necessary to ensure that facilities minimize their harmful emissions on a continuous basis.” (NGOs’ letter, page 3.) They further stated that it may not even be possible for companies to fully enclose all operations; but, even so, companies should be required to follow the current variance process before being allowed to forego dust monitoring. (*Id.* at 16.)

City Response: CDPH agrees that the handling of non-packaged bulk materials (for instance, materials not packaged within a sealed super sack or other heavy-duty industrial container) should be subject to the PM10 monitoring requirement, even when storage of the materials occurs indoors, unless a variance is applied for and granted. The NGOs correctly pointed out that transfer operations, including loading and unloading, can be significant sources of fugitive dust. The Proposed Rules have been revised accordingly.

2) Metals monitoring at all manganese-bearing material facilities. Under the Proposed Rules, facilities that handle manganese-bearing materials would have been required either to maintain such materials in fully enclosed structures or install, operate, and maintain a Federal Reference Method (FRM) PM10 filter-based monitor, in addition to the required fugitive dust monitors. The filter-based monitor would essentially collect dust for laboratory analysis to determine the amount of manganese contained within the dust. In their written comments, Alderwoman Garza and the NGOs stated that such metals monitoring should be required at all facilities unless the facility applies for and meets the standard for a variance. Similarly, at the public hearing, many

members of the public stated that facilities that handle manganese (if the substance is not banned) should be subject to both metals monitoring and full enclosure.

The NGOs also stated that, in addition to requiring an analysis of metals in PM10, the rules should require monitoring of manganese in Total Suspended Particulate (TSP). They stated:

Large particles of manganese greater than 10 microns in diameter are of critical concern from a neurological impact perspective, as these particles can enter the nose and go straight to the brain. Thus, for purposes of fully assessing impacts to public health, CDPH should require manganese-bearing bulk material facilities to collect metals data in both PM10 and TSP, until it can better understand how these measurements correlate with each other. CDPH should also determine whether particles larger than 10 microns in diameter of other materials pose specific health threats, and if CDPH determines such risks exist, similarly require TSP monitoring for any facilities handling such other materials. [NGOs letter, page 20.]

City Response: CDPH agrees and will require facilities with manganese-bearing materials to both enclose the material and install filter-based monitors. Even when material is stored indoors, there is still the potential for fugitive dust emissions during certain activities, such as transfer and transport. The enclosure requirement will be further discussed in Section D below.

With regard to the particles that are collected and analyzed pursuant to this requirement, the U.S. EPA and some state environmental agencies (e.g. Michigan DEQ) prefer PM10 over TSP when comparing inhalation health risks from toxic metals such as manganese.<sup>2</sup> In addition, in its monitoring request letters to both Watco and S.H. Bell, the U.S. EPA required FEM and FRM sampling for PM10 and not TSP. At this time, CDPH will require facilities to analyze metals in PM10 to maintain consistency with U.S. EPA.

3) Relevant standard for evaluation of manganese emissions. As mentioned above, the Proposed Rules required the owner or operator of a manganese-bearing bulk material facility to install, operate, and maintain a filter-based metals monitor. Specifications for the monitoring device and the monitoring protocol are required to be in accordance with relevant federal standards.

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<sup>2</sup> See, for example:

[https://cfpub.epa.gov/roe/indicator\\_pdf.cfm?i=6](https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=6)

[https://www.michigan.gov/documents/deq/deq-aqd-aqe-monitoring-Mn-Report-Michigan-Sept-8-2011\\_402342\\_7.pdf](https://www.michigan.gov/documents/deq/deq-aqd-aqe-monitoring-Mn-Report-Michigan-Sept-8-2011_402342_7.pdf)

However, the Proposed Rules did not set a limit or action level on the amount of manganese that may be present in the collected samples.

In its comments, AZR argued that the rules should specify an air emissions standard for manganese, stating, “Basic due process notice rights require that a standard be specified in the Amendments if it is intended that the FRM monitoring results may trigger further obligations on the facility or enforcement action by the Department. Otherwise, a regulated party has no way to determine with reasonable certainty whether the manganese results it obtains are or are not acceptable under the Amendments. It also has no means of knowing what corrective action may be required in response to the monitoring results.” (AZR letter, page 8.)

The NGOs provided information regarding the shortcomings of the Minimal Risk Level (MRL) established by the Agency for Toxic Substances and Disease Registry (ATSDR), which is 0.30 micrograms per cubic meter.<sup>3</sup> They further stated that the MRL is a screening standard, which should not be used as “a regulatory bright line for gauging unacceptable levels of manganese.” (NGOs letter, page 11.) They said the City should “instead take a more proactive, protective approach to minimize manganese exposure moving forward. (*Id.*)

City Response: With regard to fugitive dust, the Bulk Material Rules parallel State law, which sets an on-site opacity limit and prohibits visible fugitive dust from crossing the facility’s property line. CDPH needs flexibility to work with each company to ensure that these restrictions, as well as federal emission limits, are never violated. Indeed, these standards serve as maximums, not averages or guidelines; CDPH aims for emissions never to approach these points. Accordingly, rather than set a separate fixed emission standard that may not be appropriate for all sites, the Final Rules require the facilities to establish and follow a Reportable Action Level to ensure that operators take action to prevent the possibility of exposure to health and environmental hazards. Thus, the purpose of the PM10 monitors is to both ensure that the facilities’ dust control measures are working and to alert facility operators when additional steps are needed.

Likewise, the purpose of the filter-based monitors is to provide information to both facility owners and operators and to CDPH. Therefore, the Final Rules add a requirement, in Section 6.0(a), for a metals monitoring plan. In addition, the Final Rules include a Manganese

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<sup>3</sup> See: <https://www.atsdr.cdc.gov/toxprofiles/tp151.pdf>.

Limit (ML), which is defined as “the concentration of manganese equal to or greater than 0.30 micrograms per cubic meter as averaged over a rolling three-month period.” The ML mirrors the current federal MRL mentioned above. While the MRL sets forth an annual risk level, the Bulk Material Rules require facilities to prevent emissions from reaching this level over a three-month period. This approach will help prevent problems before they occur or allow the City to make a timely referral to the U.S. EPA for action.

4) Analysis of collected material. In addition to manganese, Section 6.0(d) in the Proposed Rules required the collected filters to undergo a determination and gravimetric analysis to determine the quantity of lead, arsenic, cadmium, chromium, nickel, and vanadium. AZR stated that it isn’t reasonable to require facilities to analyze all of the specified metals, because this requirement doesn’t take into consideration what a facility handles and also doesn’t include a 1% de minimis exception, as with manganese. AZR proposed that, instead of providing a list of metals, the rule should require analysis of manganese and “other compounds (as determined by the Department based on the nature of Processing of Bulk Solid Material).” (AZR letter, page 9.)

City Response: The list of toxic metals in the Proposed Rules was derived from specifications outlined by the U.S.EPA in its standard requests for metals analyses. However, a facility that does not handle materials that contain any amount of a metal should not have to test for that metal. (As mentioned above, the Final Rules no longer include a de minimis threshold for manganese.) Therefore, this language has been changed in the Final Rules in Section 6.0(e) to note that the other metals to be tested for shall be determined by CDPH and specified in the facility’s manganese monitoring plan.

5) Filter-based monitoring for other (non-manganese handling) facilities. A new section in the Proposed Rules (Section 3.0(5)) provided that that “[i]n circumstances where PM10 monitoring described in Section 3.0(4), above, does not provide sufficient information regarding fugitive dust for the Commissioner to adequately assess health impacts of such emissions, the Department may require the Facility Owner or Operator to install, operate, and maintain, according to manufacturer’s specifications, one (1) Federal Reference Method (FRM) PM10

filter-based monitoring site.” This section set forth the same requirements for such monitors as required of manganese-bearing material facilities.

The NGOs commented that the Rules should provide a formal mechanism for the public to weigh in on the need for metals monitoring. They further stated that the Rules should not presumptively limit the requirement to only one filter-based monitor, but should give CDPH express authority to require as many FRM monitors as needed. The companies that commented on the Proposed Rules stated that this provision was too vague and ambiguous. AZR stated that there should be some criteria or standard to guide the Commissioner’s determination that PM10 monitoring data is “not sufficient” and suggested that the PM10 monitoring results should be compared to the NAAQS or to the facility’s Reportable Action Level. AZR provided suggested language to this effect, also noting that facilities should be given a reasonable time period for equipment installation.

City Response: CDPH agrees there may be circumstances that warrant the installation of more than one FRM or use of alternative monitoring methods such as video recording, and the language has been revised accordingly. The purpose of Section 3.0(5) is to account for unforeseen circumstances. Therefore, the language is crafted to allow flexibility. When considering whether or not PM10 monitoring alone provides sufficient information, the Commissioner will consider a facility’s material handling processes, as well as the composition of, and constituents in, the materials handled. An example of a circumstance that might give rise to additional monitoring would be CDPH’s receipt of information from the public concerning observed impacts from a facility’s operation, which CDPH would then investigate and compare with other available information before making a reasoned determination on next steps. There are currently formal mechanisms in place for resident complaints, without additional procedures set forth in Rules.

The revised section also states that, if additional monitoring is required, CDPH will provide a reasonable time period for equipment installation.

6) Monitoring data – collection, submission and publication. With regard to the installation of PM10 monitors, the Original Rules stated that, for the first year of monitoring, the monitors must be placed around facilities such that there is at least one monitor along each side facing the four

cardinal directions. During subsequent years, the monitors were to be placed with two upwind and two downwind, based on information collected during the first year of monitoring. The Proposed Rules changed this requirement to allow more flexibility in the initial placement of the monitors, stating, in Section 3.0(4)(a), that four monitors must be placed “at or near the boundaries of the Facility ... with monitor locations subject to approval of the Department.” Similarly, with regard to the filter-based monitor (where applicable), the Proposed Rules stated that the monitor “shall be placed at a location specified in the approved fugitive dust plan.” (See Sections 3.0(5)(a) and 6.0(a) in the Proposed Rules).

AZR commented that the Rules should specify that the monitoring locations must be consistent with the U.S. EPA’s protocols and guidance for ambient air quality monitoring siting criteria. AZR suggested language in this regard. Relatedly, Watco pointed out that the reference to the three-day EPA Monitoring Schedule in proposed Section 6.0 reflects an outdated schedule for 2015. Watco stated that this section should reflect the current and most recent version of EPA’s monitoring schedule.

The NGOs stated that CDPH should make both metals monitoring and PM10 monitoring data public on a timely basis on CDPH’s website.

City Response: CDPH agrees that it is sensible to reference EPA guidelines for placement of air monitors. Therefore, the Final Rules state that the monitor locations must be consistent with the most recent U.S. EPA protocols and guidance for ambient air quality monitoring siting criteria. Section 6.0(d) has likewise been amended to refer to the most recent version of EPA’s monitoring schedule. In addition, facilities will be required to report fugitive dust monitoring data (pursuant to Section 3.0(4)(f)) and the filter data (pursuant to in Section 6.0(h)) on a monthly basis, instead of just upon request of CDPH. CDPH intends to post this data on the City’s website.

#### **D. Enclosure Requirements**

As mentioned above, the Proposed Rules would have required all manganese-bearing bulk material facilities to either fully enclose their operations or install a filter-based monitor, in addition to the four fugitive dust monitors already required. Upon review and consideration of all public comments, CDPH will require both enclosure and metals monitoring at facilities that

handle manganese-bearing materials. The Final Rules do not include an exception for facilities that install air monitors. Any facility that does not wish to enclose its manganese operations must apply for and receive a variance.

In addition, CDPH received a few other comments regarding the enclosure requirements:

1) Extent of manganese enclosure requirement. The NGOs commented that CDPH should specify all of the operations that must be enclosed in the “duty to maintain” section of the Rules. In the Proposed Rules, the list of operations was specified only in the section regarding submission of a plan. Specifically, the NGOs suggested the addition of a sentence after the duty to maintain in the paragraph preceding Section 5.0(1), which would state that the operations covered by the full enclosure requirement include, but are not limited to, all piles, conveyors, transfer points, and processing areas.

City Response. The NGOs are correct that the intent of the enclosure requirement is to require all manganese operations to be enclosed. Therefore, the Final Rules, Section 5.0, include a new sentence that reads as follows: “The operations covered by this full enclosure requirement include, but are not limited to, all piles, conveyors, transfer points, and processing areas.”

2) Applicability of enclosure requirement to IRM. AZR commented that it should be allowed to continue storing its product known as Iron Rich Material (IRM) outdoors, as it currently does, without additional monitoring, but with appropriate controls. AZR pointed out that IRM contains an amount of manganese less than 5 percent by weight and that there is data showing that the material does not create unacceptable manganese fugitive dust emissions. AZR suggested that, instead of indoor storage, the rules require the IRM to be sheltered by a three-sided barrier and be subject to the application of water and chemical stabilizers, among other controls. AZR further stated that the cost to enclose its IRM piles is estimated to exceed \$10 million dollars and is, therefore, prohibitively expensive. The company also stated that it is not feasible or safe to tarp or cover the IRM piles because of their size and the need to work the piles to transfer IRM.

City Response. As mentioned above, the Final Rules no longer include a de minimis exception for manganese content. As pointed out by the NGOs, even if a material contains a low amount of manganese by weight, the material could still pose a risk if handled in large quantities

and not sufficiently controlled. In addition, AZR's request for a variance from the requirement to install PM10 monitors failed to demonstrate that IRM, when crushed and processed outdoors, does not have the potential to produce fugitive dust that might lead to adverse impacts.<sup>4</sup> Once AZR has monitoring data to support its claims, it may submit a variance request from the enclosure requirement. The alternative measures proposed by AZR may be sufficient to ensure that outdoor storage and handling of IRM will not cause a public nuisance or other adverse impacts. However, such measures must be reviewed through the variance process.

3) Requirements for enclosure structures. Section 5.0(2)(e) in the Proposed Rules (renumbered as 5.0(2)(b) in the Final Rules) provides that, "Structures used to store, handle, or transfer Manganese-Bearing Bulk Material shall be properly maintained and equipped with and use a permitted air pollution control system and/or the ability to apply water to materials within a structure sufficient to control Fugitive Dust emissions at designed vents and at any other openings, including entrances and exits." AZR provided two comments regarding this section:

1) The Final Rules should distinguish between Moist and non-Moist Material, and provide that only manganese-bearing materials that are not moist be subject to the above requirements regarding the use of an air pollution control system and/or the ability to apply water. Under the Original Rules, "Moist Material" is defined as "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."

2) The meaning of "designed vents" in section 5.0(2)(e) is unclear. The company suggested that the term be clarified by replacing it with "exhaust vents of the structure."

City Response. The language in section 5.0(2)(b), applicable to enclosure structures for manganese-bearing bulk material, is identical to the existing language in section 4.0(2)(b), applicable to enclosure structures for coke and coal bulk materials. To CDPH's knowledge, there have been no issues with the existing language. The term "designed vents" means a ventilation system that is purposefully designed to control emissions from the subject material. In addition, Moist Materials do not always remain moist during storage. Accordingly, even buildings that

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<sup>4</sup> AZR's variance request and CDPH's response can be found on the City's website here: [https://www.cityofchicago.org/city/en/depts/cdph/supp\\_info/inspections---permitting/horsehead-corporation.html](https://www.cityofchicago.org/city/en/depts/cdph/supp_info/inspections---permitting/horsehead-corporation.html).

store Moist Materials must have the capacity to add additional moisture as needed and/or be equipped with appropriate air pollution control systems. The details of such systems should be specified in the Fugitive Dust Plan, which can be tailored to the individual facility's materials and operations.

3) Typos in manganese enclosure section. AZR pointed out two typographical errors in Section 5.01(b). Specifically, in Section 5.0(1)(b)(ii), a reference to Section 4.0 should have referenced Section 5.0; and in Section 5.0(1)(b)(iv), the term "Bulk Material" was printed twice.

City Response. These errors have been corrected in the Final Rules.

#### **E. Variance Process**

The Bulk Material Rules include a detailed section regarding variances. Renumbered as Section 10.0 in both the Proposed Rules and the Final Rules, this section sets forth specific requirements for variance applications as well as the criteria by which such applications will be reviewed. This section further provides that members of the public shall be afforded at least 30 days to provide written comments on variance applications, and that the Commissioner will consider these comments in the review process. Other than numbering changes, the only proposed amendment to this section was to clarify the provision regarding the imposition of conditions on a variance by adding the underlined language in Section 10.0(3)(c) as follows:

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.

CDPH did not receive any comments on the proposed amendment. However, the Department received the following comments on the existing variance process:

1) Public input on variance process. With regard to filter-based metals monitoring, Alderman Garza commented that the rules should ensure there is a mechanism for the public to provide input in all cases where a variance is sought by any bulk material facility. With regard to

variances that have already been issued, the NGOs commented that there should be “a provision for the public to petition the Commissioner for revocation of a variance, if and when evidence arises that the variance is no longer justified.” (NGOs letter, page 24.)

City Response. The Bulk Material Rules provide a process for public input on variance requests, including any requests relating to monitoring requirements. The Rules also include a provision regarding revocation of variances. Section 10.0(3)(d) provides that:

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.

In determining whether or not a facility is creating a nuisance or causing adverse impacts, CDPH considers all available evidence, including community complaints and observations, inspection reports, and monitoring data. CDPH encourages any persons or organizations who believe a variance is not effective to use the process for submitting complaints, including providing detailed information on how and when a violation is alleged to have occurred.

2) Variance review process structure. Similar to their request regarding review of Fugitive Dust Plans, discussed above, the NGOs commented that there should be more structure around the variance review process. Specifically, the NGOs stated that there should be deadlines for CDPH’s determinations on variance applications.

City Response. The review of variance requests is an involved process that the Department does not undertake lightly. While it is preferable to act upon the requests quickly, flexibility is needed so that the City can prioritize responsibilities. When a variance request is pending, facilities are still required to control dust and adhere to other requirements, and the Department continues to respond to complaints, conduct routine inspections, and take enforcement action.

3) Automatic cessation of monitoring requirement in lieu of variance process. AZR stated that the Final Rules should provide a way for a regulated facility that does not present a risk of unacceptable manganese emissions, as shown by monitoring data, to apply to CDPH to obtain approval to terminate the FRM monitoring without going through “the laborious and uncertain” variance process. (AZR Letter, page 8.)

City Response. The Department agrees that monitoring data collected over a sufficient period of time may demonstrate that a facility is not causing a nuisance or adversely impacting the surrounding area, and if it does, this data may support a decision to discontinue monitoring. However, using the variance process, rather than layering on a new process with similar aims, is the appropriate path for such a request and determination.