City of Chicago
Department of Public Health

Official Response to Public Comments on Proposed Rules for Large Recycling Facilities

June 5, 2020

I. Purpose

The purpose of this document is to respond to the issues and questions raised by commenters on the Proposed Rules for Large Recycling Facilities (Proposed Rules), issued by the Chicago Department of Public Health (CDPH) on May 6, 2019. This document also explains how the Proposed Rules were modified for the Rules for Large Recycling Facilities ("Final Rules"). In summary, the scope of the Proposed Rules for Large Recycling Facilities has been narrowed with an adjustment to the definition of "Large Recycling Facility" and other changes, while some sections have been revised and clarified both to promote compliance by Facilities and to further protect communities from the potential adverse impacts of these operations. As mentioned below, CDPH intends to propose amendments to the General Recycling Facility Rules, which apply to recyclers of all sizes, both large and small. Among other things, those forthcoming amendments will require facilities to develop and follow fugitive dust plans.

The Final Proposed Rules for Large Recycling Facilities ("Final Rules") are attached to this document and can also be found at www.cityofchicago.org/EnvironmentalRules.

II. Background

On May 9, 2019, CDPH published a notice and solicitation of written comments with respect to its Proposed Rules pursuant to Chapters 2-112 and 11-4 of the Municipal Code of Chicago (MCC). The purpose of the Proposed Rules was to provide explanations, guidelines, and requirements regarding the operation, location, design, and permitting of Large Recycling Facilities in Chicago. In the Proposed Rules, *Large Recycling Facility* was defined to mean a recycling facility that either 1) is authorized to accept 250 tons or more per day of recyclable materials or 2) has a site area consisting of 2.5 acres or larger.

The Proposed Rules were intended to supplement the requirements contained in the existing Recycling Facility Rules (hereafter, the "General Recycling Facility Rules") issued on March 19, 2014.

The public comment period on the Proposed Rules was originally scheduled to close on June 7, 2019, but was extended to June 21, 2019, by request. CDPH received 31 submissions of written comments, including letters from affected businesses and industry representatives, as well as one submitted on behalf of nine health and environmental advocacy non-governmental organizations (NGOs)[1]. Subsequently, upon request, CDPH met with individual companies, associations, and NGOs to hear their comments and answer questions.

On May 12, 2020, CDPH shared a copy of the Amended Proposed Rules and a Draft Responsiveness Document with all parties who previously submitted comments and provided a final opportunity to submit further written comments. In response, CDPH received six additional comment submittals (three from regulated businesses and three from NGOs).

A complete compendium of all written comments is available on CDPH's website at 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 comments and responses below are presented in six categories: A) Scope of the Rules, B) Application Requirements, C) Design Report Requirements, D) Operating Plan Requirements, E) Operating Standards, F) Implementation Schedule, and G) Variance Process. Section numbers refer to the numbering as they appeared in the Proposed Rules unless otherwise noted.

[1] The NGOs consisted of the Southeast Environmental Task Force (SETF), the Little Village Environmental Justice Organization (LVEJO), the Natural Resources Defense Council (NRDC), the Chicago Southeast Side Coalition to Ban Petcoke, the University of Illinois, Chicago, School of Public Health, the Alliance for the Great Lakes, the Environmental Law and Policy Center, the Respiratory Health Association, and the Sierra Club, Illinois Chapter.

A. SCOPE OF THE RULES

1) DEFINITION OF LARGE RECYCLING FACILITY.

As mentioned above, the Proposed Rules defined *Large Recycling Facility*[2] to include all classes of a recycling facility that are permitted to accept at least 250 tons of recyclable materials per day, or that occupy a site that is 2.5 acres in size or larger. (Proposed Rules, Section 2.) Under the Proposed Rules, all Large Recycling Facilities would be subject to new detailed permit application and operating plan requirements, as well as specific operating standards to ensure the protection of the environment and compliance with the Chicago Municipal Code. In addition, Large Recycling Facilities that also meet the definition of a *Consequential Facility* (discussed below) would be required to prepare an Air Quality Impact Assessment and conduct air monitoring.

Many of the new requirements in the Final Rules would apply to existing Large Recycling Facilities; that is, Large Recycling Facilities already properly permitted on the date the new rules are finalized. However, certain sections would apply only to new facilities and to existing facilities that are *expanded* or *modified* as provided in the rules. More on this below.

Other than air monitoring requirements for Consequential Facilities, the Final Rules do not require Existing Facilities already in compliance with existing requirements to make any capital or significant improvements to their sites. The Final Rules also reduced the application requirements for Existing Facilities by removing items that CDPH can readily obtain on its own, such as aerial photographs and USGS Maps. Such elements are still required for New or Expanding Facilities, as the utilization of these resources greatly informs the planning and design of these new facilities and operations.

With regard to the definition of *Large Recycling Facility*, and the scope of the Rules generally, most of the industry commenters expressed the opinion that the Rules were too expansive. For example, facilities that recycle used auto parts using a manual removal process (Bionic Auto Parts, Englewood Used Auto Parts, VJ Auto Parts/dba Aero Auto Parts) stated that the Proposed Rules should not apply to their operations. They noted that State law distinguishes between "auto parts recyclers" and "scrap processors," and that the former does not create the same potential for pollution as the latter. (Englewood Used Auto Parts, page 1-2.) Some of the auto recyclers also

[2] Capitalized terms are defined terms in the rules.

suggested that facilities participating in the Illinois Green Car Program should be exempt from the Rules.

Similarly, other commenters (Tower Alloys, Universal Scrap) argued that the new rules should apply only to facilities that conduct shredding operations, stating that the new requirements would be "overly burdensome and create a *financially unviable* situation for non-shredding operations." (Tower, page 2, emphasis in original.) Other commenters agreed, noting that, not only should the Rules apply to automobile shredders, but that they should cover all metal shredding operations, including shredding of "appliances and light iron." (Napuck Salvage, page 2.)

In addition, many commenters (including Napuck Salvage, Regency Technologies, Reserve Marine Terminals, South Shore Recycling, and Reliable Asphalt) pointed out that there are significant differences among recyclers, in terms of size, materials handled, and processing methods. Most of these commenters further stated that the Proposed Rules would jeopardize small businesses and, therefore, should apply only to New and Expanding facilities.

In this regard, another company, Aero Auto Parts noted that:

> "250 tons per day is a lot of recycled material and does constitute a large recycling facility. However 2.5 acres is a very small automotive recycling yard that holds very limited inventory, and processes very few vehicles and very limited tonnage. We ship approximately 8 tons of material per week. That's only 1.33 tons per day. (we operate six days a week) I don't believe a facility that ships 1.33 tons per day should have to adhere to the same set of rules as one that ships over 250 tons per day." [Aero Auto Parts, page 1.]

The view that existing facilities should be grandfathered, and therefore not subject to the new requirements, was echoed by other commenters (such as Cronimet). On the other hand, some commenters highlighted specific sections of the Proposed Rules that they felt should not apply to Existing facilities, such as the requirement to prepare a Design Report. (Lindahl Brothers, Land Reclamation and Recycling Assoc.) Along the same lines, Reliable Asphalt stated that certain provisions, such as the material volume limitations and the storage pile height limit, should not apply to facilities that handle Type D material (i.e. construction and demolition debris). (See Reliable "Redline," page 38 and 42, respectively.)

However, in contrast to many of the commenters, Reliable Asphalt also stated that the definition of "Large Recycling Facility" should be expanded to mean a facility that has a site area consisting of 1.0 acres or larger, in order to encompass "all properties engaged in the activities covered by these Proposed Rules." (*Id.* at page 15.)

In subsequent comments, Reliable stated that the regulations should be based on scientific studies and not subjective “common sense” standards, asserting that there is no rational basis for distinguishing between facilities on the basis of volume processed. (For example, they noted that rock crushing at a job site may have a worse environmental impact on a neighborhood than an operation in a Planned Manufacturing District (PMD) away from homes.) They stated that all facilities that are likely to create environmental impacts should be subject to the same requirements for monitoring, reporting, and mitigation, and that distance from a Sensitive Area would be a better measure of whether a facility should be subject to heightened scrutiny. Relatedly, Groot Industries commented that the tonnage threshold "presumes that smaller Recycling Facilities (<250 tons per day) are inherently safer or operate with fewer potential impacts, which may not be the case. Large Recycling Facilities (>250 tons per day) have often invested in Site and Facility improvements that allow them to operate more safely and with fewer potential environmental impacts than smaller Facilities." (Groot, page 1.) Groot suggested that the definition of "Large Recycling Facility" exclude facilities that receive recyclable materials "from residential and commercial sources within an enclosed building or container" and that process the materials "only through manual, mechanical or automated means without the use of chemical or thermal treatment, cutting, or torching [because such means are not a potential source of toxic air pollutants.]" *Id.*

Finally, the NGOs, citing a study in California, noted that "Even small operations, located proximate to neighbors, can pose significant risks to community health." (NGO Comment, page 15.) However, while making no comment on the definition of a "Large Recycling Facility," the NGOs' detailed comments focused on the inherent risks and environmental concerns associated with metal shredding operations.

In subsequent comments, the NGOs also stated that CDPH should prevent companies from segmenting their operations in order to inappropriately circumvent the volume threshold set forth in the definition. In this regard, the NGOs recommended that CDPH clarify that the definition of a “Facility” includes all structures, equipment and ancillary fixtures on land that are used to Process, Store, or Recycle materials and that (1) “belong to the same industrial grouping; and (2) are located on one or more contiguous or adjacent properties; and (3) are under the control of the same person,” consistent with federal air law, regulations and guidance defining “facility” and

what constitutes a "single source." Relatedly, they stated that CDPH should adopt limits on the total size and capacity of recycling sources, applying this "single source" definition of a facility and taking into account the relative distribution of recycling facilities within the city and any disparate impacts on disadvantaged communities.

CITY RESPONSE:

Upon review and consideration of the public comments, CDPH has decided to amend the definition of a *Large Recycling Facility* in the Amended Proposed Rules. The Department recognizes that the new requirements represent a significant increase in facility documentation, recordkeeping, and design standards, and believes these requirements should be commensurate with the facility's potential impact upon the environment and surrounding community. Accordingly, in the Final Rules, *Large Recycling Facility* is defined to mean 1) any recycling facility, of any size, that operates a metal shredder with a process rate of greater than 25 tons per hour or utilizes Mechanical Sorting Equipment in the processing of auto-shredder residue, or 2) any recycling facility that is authorized to accept 1,000 tons or more per day of recyclable materials, and does not include recycling activities conducted at waste transfer station facilities permitted pursuant to 11-4-250 of the Municipal Code.

With regard to the volume threshold, 1,000 tons per day is equivalent to a minimum of fifty trucks per day, or 100 truck trips, in and out of a facility. This is a level that resembles the volume of waste handled at a typical waste transfer station in Chicago. Therefore, it is appropriate that a recycling facility handling a similar amount of material should be subject to similarly protective (though not identical) environmental regulations.

In response to Reliable's statements, CDPH agrees that proximity is a good indicator of potential negative impacts to the community. As explained below, the definition of "Consequential Facility" takes into a facility's location in comparison to sensitive uses. For this reason, the Final Rules require Consequential Facilities to conduct an air assessment and monitoring.

However, unlike permanent facilities in PMDs, construction-site crushing activities are temporary in nature. For years now, it has been CDPH's policy and practice to require dust and weather monitoring at temporary crushing sites that do not meet the minimum setback requirements. Consequently, these minimum setback requirements are more stringent than those required for permanent rock-crushing facilities.

CDPH will propose amendments to the General Recycling Rules that may adopt a similar "Consequential Facility" approach.

As for metal-shredding facilities, regardless of size, these are the operations that pose the highest potential for adverse environmental impacts, as many commenters noted. Furthermore, shredding operations have historically drawn the most environmental complaints related to recycling, especially related to air pollution and noise. Accordingly, these facilities remain subject to the Final Rules.

At the same time, CDPH has determined that the General Recycling Facility Rules ("General Rules"), applicable to all sizes and classes of Recycling Facility, are due for an update. While not as extensive as the Final Rules for Large Recycling Facilities, the amended General Rules will include new, more protective environmental regulations, such as the requirement for a basic fugitive dust plan. In addition, the amended General Rules will include new recordkeeping requirements to ensure that smaller facilities remain below the threshold for "Large Recycling Facilities" and are operating in compliance with the permit and applicable requirements.

In accordance with Section 2-112-160(b)(6), CDPH will post the proposed Amended General Rules on its website and will accept written comments on the Proposed Rules for a thirty-day comment period.

Finally, CDPH generally agrees with the “single source” approach recommended by the NGOs and will further consider it under future amendments to the General Recycling Rules and planned Air Rules (noting that such change may require an ordinance amendment). In the meantime, the Final Rules contemplate alternate placement of monitors along property boundaries, rather than Facility boundaries, when appropriate—such as when multiple operations share the same property. This requirement will be set forth through permit conditions.

2) NEW, MODIFYING, AND EXPANDING FACILITIES.

Expansion was defined in the Proposed Rules as "an increase in the horizontal boundary and/or vertical limits of a Large Recycling Facility, or an increase in the handling or processing capacity of a Large Recycling Facility beyond the limits established in its current permit." (Proposed Rules, Section 2.) In the Amended Proposed Rules, the definition was revised so that *Expansion* means “an increase in the horizontal boundary of a Large Recycling Facility beyond the limits established in its current permit.” In the Final Rules, *Expansion* is defined as “an increase in the horizontal or vertical boundary of a Large Recycling Facility or an increase of more than 10% of the permitted capacity of a Facility beyond the limits established in its current permit.”

In addition, in the Proposed Rules, a *Modification* was defined as:

"one or more physical, operational, or administrative changes that do not constitute an Expansion and that require a permit amendment from CDPH. Such changes include, but are not limited to, changes in the nature of the Facility's operations, changes in Facility configuration, changes in the nature of the Process, and changes necessary to comply with the Consequential Facility requirements under these rules." *Id.*

In the Final Rules, the definition was revised so that three additional Facility changes qualify as a Modification: 1) an increase or change in the handling or Processing capacity of the Facility of ten percent or less, 2) the addition or removal of stationary equipment or machinery, and 3) all capital improvements.

Requirements that would apply only to New or Expanding facilities consist of the following (section numbers refer to the Final Rules):

1) a Site Survey in the Design Report (Section 3.9.1);

2) USGS Map Location in the Design Report (Section 3.9.2);

3) Aerial Photograph Drawing in the Design Report (Section 3.9.3);

4) Location Standards in the Design Report (Section 3.9.4);

5) The concrete or hot-mix-asphalt paving requirement (Section 3.9.6.4);

6) Information about utilities in the Design Report (Section 3.9.7);

7) Water sources in the Design Report (Section 3.9.8);

8) Demonstration of Building and Fire Code Compliance (3.9.10.4);

9) Water Drainage in the Design Report (Section 3.9.12);

10) Traffic study in the Design Report (3.9.13.4 through 3.9.13.7);

11) Expected Waste Generation in the Design Report (3.9.14);

12) Parking in the Design Report (3.9.15);

13) Durable material fence requirement in the Design Report (Section 3.9.17.2); and

14) Shredder enclosure requirement for shredders that process vehicles or have potentially explosive feedstock (Section 4.12).

Regarding the definition of *Modification*, Reliable commented that CDPH should not include changes that will result in an operator processing a lower volume of material. Further, they stated that "capital improvements" should not be included as one of the criteria, as this term is too general and inclusive—and could even include improvements designed to mitigate environmental impacts. Similarly, regarding "changes in facility operations," they noted that operators may wish to adjust locations of stockpiles or equipment to improve workflow, and that this should be allowed without requiring a variance.

Regarding the definition of *Expansion* in the Amended Proposed Rules, the NGOs objected to the revised definition, noting that the amended rules remove increases in capacity that do not include an increase in a facility's horizontal boundary or vertical limit and instead consider such increases in capacity as *Modifications*. They asserted that increases in capacity that do not involve footprint or similar vertical increases should still trigger enhanced requirements and/or prohibitions, given the potential for increased off-site impacts. The NGOs also stated that CDPH should clarify that Existing Facilities seeking modifications that would result in the Facility meeting the criteria for a Consequential Facility shall be considered "New" and "Consequential."

Further, the NGOs commented that CDPH should confirm that a Facility that adds recycling capacity that meets the NGOs proposed 3-pronged test for the definition of "Facility" (noted above) will be considered an "Expansion" under the Rules if it otherwise meets the horizontal boundary and vertical limits defining an Expansion. This could result in a Facility that previously fell below the Large Recycling Facility or Consequential Facility thresholds would then qualify as Large or Consequential.

CITY RESPONSE:

In response to Reliable's comments on the definition of *Modification*, CDPH notes that the definition of *Modification* specifies that it applies to changes that "require a permit amendment." Recycling Facility permits are issued based on volume limits that are not to be exceeded. Therefore, if a facility wishes to accept and process a lower volume of material, a permit modification should not be necessary, and the change would not count as a "Modification." However, if the Owner/Operator wished to amend its permit anyway, then CDPH would ask for the specific (if not unusual) circumstances regarding why a Modification is necessary. CDPH

would then scrutinize such applications to ensure the Applicant has a legitimate reason for the reduction and is not trying to circumvent the Rules.

In addition, CDPH notes that the broad definition of "capital improvement" is intentional as a conservative measure. CDPH needs to know about all physical improvements to a Facility and ensure that such implementation will go through proper engineering review and sign-off, will perform as expected, and will not create unintended negative consequences. Accordingly, the Final Rules retain "capital improvements" as one of the triggers for "Modification."

In response to the NGOs' comments on the definition of Expansion, CDPH considered the comments and believes a small (ten percent or less) and one-time increase in permitted capacity should not be considered an Expansion as there would be no physical increase in the size of the Facility that would trigger zoning review and approval, as well as necessitate a compliance review of the location standards set forth in 3.9.4 of these rules. However, larger permit increases should be considered an Expansion as this would require more information to assess impacts to traffic, emission rates, and utility demands. Therefore, the Final Rules now consider an increase of more than 10% of the current permitted capacity to be an Expansion. (As mentioned above, the Final Rules do not adopt the NGOs' proposed 3-prong definition for Facility, so the definition of Expansion was not amended in this regard. CDPH will consider this matter further in future rules.)

3) DEFINITION OF CONSEQUENTIAL FACILITY.

The Proposed Rules created a sub-category of Large Recycling Facility called a *Consequential Facility*. Large Recyclers that meet one of the specified criteria for Consequential Facilities are subject to additional requirements in the Rules. (Appendix A to the Rules identifies which requirements apply to Existing, New, Modifying, Expanding, and Consequential Facilities.) In the Amended Proposed Rules, CDPH revised the list of criteria, so that the Final Rules define *Consequential Facility* to mean a Large Recycling Facility that:

a. Is located within 660 feet of a Sensitive Area;
b. Has been found in violation of any federal, state, or local air quality law or regulation within the last three years;
c. Conducts the mechanical shredding of vehicles, operates a metal Shredder with a manufacturer-rated capacity of more than 25 tons per hour, or utilizes Mechanical Sorting Equipment in the Processing of auto-Shredder residue; or
d. Is a Class V Facility.

Commenting on the original Proposed Rules, General Iron, while not objecting to the scope of the Rules, noted that shredding should include shredding of appliances as well as vehicles. Tower Alloys and Universal Scrap Metals stated that the definition of "consequential facility" should be revised to (i) define "mechanical sorting equipment" and (ii) specifically include mention of shredding activities. Groot Industries stated that the definition should exclude facilities that conduct sorting within an enclosed building.

In addition, concerning the inclusion of facilities that handle Type D material (which applies to Class V Recycling Facilities), Reliable Asphalt stated: "Establishing a new category of Facility using limits on processing volume without regard to the type of material processed is an arbitrary application of the Commissioner's authority. Type D material is benign, non-hazardous, is present in our daily lives, and around our homes and businesses. Additionally, the value of the commodity and the volume of processing performed varies widely between types of materials regulated under these rules and impacts all parts of the operations. Arbitrary inclusion of facilities in this category creates an undue burden on Existing Facilities operating in compliance with current rules and regulations."

In its subsequent comments, Reliable further noted that Type D materials do not include “harmful pollutants such as lead, manganese, crystalline silica, and asbestos.” They reiterated the position that “rock crushing should not be in the same category as automobile shredding,” while asserting that CPDH should expand the category of Consequential Facilities to include recycling facilities of any kind that are within 660 feet of a Sensitive Area and exclude Class V processors that are more than 660 feet from a Sensitive Area.

Finally, in commenting on the Amended Proposed Rules, the NGOs objected to the removal of torch-cutting, welding, or heating of metals as an independent criterion for qualifying as a Consequential Facility. They noted that a study in Houston supports that torch cutting alone can yield high levels of toxic heavy metals, including hexavalent chromium. Further, a follow-up study of Houston metals facilities (conducted by the UTHealth School of Public Health) identified significantly elevated cancer risks (up 24 in a million) from the Allied Alloys facility, and appeared to attribute those risks to torch cutting. Supplemental comments submitted by the NGOs (in December 2019 and again in May 2020) provided additional support for the point that torch cutting has a significant impact on air quality. Thus, the NGOs asserted that the City “should prohibit or severely limit outdoor torch cutting in or adjacent to residential areas as soon as possible.”

CITY RESPONSE:

With respect to the comments by the metals recyclers, CDPH agrees that the potential for fires and explosions are not limited to auto shredders. Therefore, in the Final Rules, CDPH revised the definitions of a *Large Recycling Facility* and a *Consequential Facility* to cover all metal shredders with a rated capacity of greater than 25 tons per hour. This lower feed rate affords better screening of the feedstock for potentially explosive materials and allows facilities to process small quantities of metal without becoming subject to these rules. CDPH will address these smaller shredding operations in the upcoming revision to the General Recycling Facility Rules.

CDPH also agreed with the points made by Tower Alloys and Groot, as indicated above. Thus, CDPH specifically defined mechanical sorting equipment in the Final Rules and is providing exemptions for certain Consequential Facilities as discussed in CDPH's response to the Rule 4.8 comments below.

In response to Reliable's comments, when CDPH defined a Consequential Facility, the Department deliberately included operations that generate a lot of dust and have received high volumes of air-quality-related complaints. These targeted operations included metal-shredding activities and processes that handle Type D recyclable materials or reprocessable construction/demolition materials[3].

While it is true that Type D recyclables are generated from everyday items present in our daily lives, and around our homes and businesses, these materials can become harmful when they are disturbed--as when these materials enter the waste or recycling stream. An example is excavated soil commonly handled at Class V recycling facilities. While these materials may not necessarily be considered a hazardous substance, the fine particulates generated in the hauling, loading, unloading, stockpiling, and processing of these soils can be harmful to human health, particularly populations with respiratory conditions such as asthma and chronic obstructive pulmonary disease (COPD). The dust may also contain lead, arsenic and carcinogenic compounds such as polynuclear aromatic hydrocarbons (PAHs) that are typically found at elevated concentrations in urban soils.

CDPH encourages the reuse or recycling of materials, but the environmental and health impacts from these beneficial operations should not be unfairly borne by the host community. Notably,

[3] *Reprocessable construction/demolition material* means broken concrete, bricks, rock, stone, or paving asphalt generated from construction or demolition activities. (See 11-4-1910.)

future amendments to the General Recycling Rules may adopt a similar “Consequential Facility” approach.

With regard to torch cutting, this issue is discussed in the section on Air Quality Standards and Monitoring below. In short, CDPH agrees that this activity warrants further attention, but notes that it extends beyond the limits of the Rules for Large Recycling Facilities. In any event, including torch cutting as one of the criteria above would not have an impact on the number of Large Recycling Facilities that would be considered Consequential Facilities, because the Large Recycling Facilities that engage in this activity already meet one of the other listed criteria.

B. APPLICATION REQUIREMENTS (SECTION 3.0)

Napuck Salvage, Regency Technologies, Reserve Marine Terminals[4], and Cronimet commented that the rules should only apply to new or expanding facilities. Groot Industries stated that the sentence "Documentation submitted to other regulatory agencies, such as the EPA, IEPA, and the MWRD…attachment and referenced in the application," be deleted. In addition, Groot commented that waste facilities that also conduct a recycling operation at the same site should not need to obtain more than one permit from CDPH.

CITY RESPONSE:

As stated previously, the number of existing facilities subject to the rules, and the burden on Existing Facilities have significantly been reduced under the Final Rules.

The sentence Groot proposed to delete is meant to allow applicants to incorporate in their permit applications work already prepared for other regulatory agencies to reduce duplication. CDPH retained the sentence for this reason. CDPH agrees with Groot's comment relating to recycling operations at permitted waste transfer stations and has adjusted the definition of a Large Recycling Facility accordingly.

[4] Napuck Salvage, Regency Technologies, and Reserve Marine Terminals jointly submitted their comments to the Proposed Rules. In this document, the term “Napuck” refers to all three companies.

RULE 3.1 - PROFESSIONAL ENGINEER

Many commenters, including Universal Scrap Metals, Cronimet, and General Iron, commented that the professional engineer requirement should be stricken.

CITY RESPONSE:

As previously stated, the definition of a Large Recycling Facility was adjusted to capture only large facilities whose operations approach the level of impact of permitted waste facilities, and as such, should be subject to similar requirements, including the provision of a professional engineer's stamp.

To reduce the burden on regulated facilities, CDPH no longer requires a professional engineer stamp on subsequent renewal applications that are not proposing any Modification or Expansion.

RULE 3.5 FACILITY SUMMARY

This section in the Proposed Rules requires the application to include specific information, including a list of the types and sources of materials to be brought to the Facility, the anticipated daily quantities to be brought to the Facility, and daily and weekly amounts expected to be processed. Cronimet and Sims Metal Management ("SIMS") requested that the information required in 3.5 be withdrawn, as it would disclose proprietary information. SIMS added that such an information request is intrusive and is not necessary for the protection of the health and the environment. Cronimet, Napuck, and others added that historical records should be allowed in providing the average and daily quantities requested in 3.5(D) and 3.5(E).

In subsequent comments, SIMS asserted that the proposed definition for “Trade Secret” in the Amended Proposed Rules was too narrow and should specifically include Confidential Business Information. SIMS suggested a new definition, which included a lengthy list of the types of information that should be considered confidential.

CITY RESPONSE:

It is the CDPH's position that the information requested in 3.5 is necessary for setting permit conditions and essential in the protection of human health and the environment. Such information allows estimation of possible emission rates from processes and vehicles, as well as

identification of potential pollutants that may be emitted (e.g., manganese, lead, etc.) from the facility.

CDPH respects the privacy and the right of facilities to maintain proprietary information they deem crucial to their competitive advantage. However, this must be balanced with CDPH's responsibility to protect public health and the environment. In the Final Rules, CDPH has added a definition for *Trade Secret*, which echoes the definition in Section 11-4-120 of the Municipal Code and is used in Section 11-4-310 of the Code. However, CDPH also added a definition for *Confidential Business Information*, which uses language from Section 7(1)(g) in the Illinois Freedom of Information Act. The Final Rules provide that the applicant may request the Department to treat with confidentiality any information the Applicant deems to be Confidential Business Information (CBI). Pursuant to 11-4-310 of the Code, CDPH will formalize its procedure for the protection of CBI.

CDPH further addresses commenters' concerns regarding the disclosure of proprietary information in CDPH's response to comments on Rule 3.11.1, “Operating Plan: Types of Recyclable Materials,” below.

CDPH agrees that historical records may be used in the estimation of the average and maximum rates requested in 3.5(D) and 3.5(E). However, CDPH moved 3.5 (C) through 3.5 (E) to later sections of the Final Rules, so that the information will now be an ongoing reporting requirement instead of being required in the permit application.

Another change in the Final Rules is that the facility summary must now include a description of any other operations or businesses occurring at the Property outside the scope of the recycling permit. This basic information is essential for CDPH to have a full understanding of all activities at the Site and should not be burdensome for applicants to provide.

RULE 3.8 - NATURE OF A SPECIAL USE

Groot commented that the first sentence of this section should be deleted. ("If applicable, an application for a new facility shall contain all reports and information intended to support an application for a ... (Special Use Variance) from the zoning board of appeals (ZBA).") Reliable added that the last sentence should read, "the application shall contain a copy of the resolution of approval of the special use variance to demonstrate that the facility is in compliance…"

CITY RESPONSE:

In consideration of Reliable' s and Groot's comments, CDPH deleted the last sentence of this section and revised the first sentence to read as follows:

> *If applicable, the Design Report shall contain a copy of the variance in the nature of a special use (Special Use Variance) from the Zoning Board of Appeals (ZBA), and any plans and drawings referenced therein.*

This does not change an applicant's responsibility to comply with the Chicago Zoning Ordinance.

Rule 3.10 – Environmental Impact Assessment

SIMS commented that the environmental impact assessment (EIA) should not be required. The NGOs, however, recommended a modification to allow CDPH to extend the EIA requirement to facilities that are not encompassed in Section 17-13-0902-B of the zoning ordinance.

CITY RESPONSE:

This requirement was a request for information already prepared pursuant to the Chicago Zoning Ordinance. Following up on SIMS comment, CDPH confirmed that an EIA is only required for land uses such as an incinerator, hazardous waste treatment or storage facility, resource recovery facility, reprocessable construction/demolition material facility, transfer station, or liquid waste handling facility, or sanitary landfill. As recycling facilities are not required to prepare an EIA in the zoning ordinance, CDPH removed 3.10 in its entirety.

In response to the NGOs' comment, CDPH will discuss with the City's Zoning Ordinance Administration Division whether an EIA should be required for certain recycling operations.

C. DESIGN REPORT REQUIREMENTS (SECTION 3.9)

RULE 3.9 DESIGN REPORT

The Construction and Demolition Recycling Association (CDRA) commented that only New or Expanding facilities that recycle hazardous materials should be required to submit a Design Report. Similarly, other commenters, including Cronimet and Lindahl Bros. ("Lindahl"), requested the Design Report only be required for New or Expanding facilities.

Land Reclamation & Recycling Association (LRRA) commented that changes in permitted volumes and other "benign and non-hazardous" changes be exempted from having to submit a new Design Report.

CITY RESPONSE:

As previously mentioned, the change in the Large Recycling Facility definition significantly reduced the number of facilities subject to the Amended Proposed Rules. Besides, CDPH removed many design requirements for Existing Facilities, including the requirements for a plot plan, site survey, aerials, and USGS Map. These requirements were retained for New or Expanding facilities, as the review of these features is critical in the design of the New or Expanded Facility. Furthermore, the Amended Proposed Rules no longer consider an increase in the permitted rate or capacity as an Expansion, but rather a Modification. Although Modifying Facilities must still submit a Design Report, it is not to the level required for New or Expanding facilities.

RULE 3.9.1 - DESIGN REPORT: PLOT PLAN

Tower Alloys requested the removal of the topographic contour requirement, while SIMS commented that the plot plan in 3.9.1. and the site survey in 3.9.6 appears to be duplicative.

CITY RESPONSE:

Under the Amended Proposed Rules and Final Rules, Existing Facilities no longer have to submit a plot plan, which included topographic contours. Also, CDPH agreed with SIMS and consolidated the plot plan and site survey requirements in 3.9.1.

RULE 3.9.2 - DESIGN REPORT: USGS MAP

Groot commented that "residential property" should be deleted as an identifiable feature, as this feature is already requested in 3.9.3.3. In addition, Tower Alloys and Universal Scrap both stated that the term "any feature" should be removed.

CITY RESPONSE:

CDPH agrees with both comments and adjusted the language in this subsection accordingly.

RULE 3.9.3 - DESIGN REPORT: AERIAL PHOTOGRAPH DRAWINGS(S)

Cronimet requested that aerial photos should only apply to New or Expanding Facilities. Others asked if satellite imagery from commercial sources could be allowed, while Groot commented that "residential property" and "non-manufacturing land uses" features should be removed.

CITY RESPONSE:

As already stated above, Existing Facilities no longer have to provide an aerial photograph of their Site. CDPH sees no issue in applicants using commercially available satellite imagery such as Google Earth/Maps, provided the applicant complies with the imagery provider's terms of use or has their explicit permission.

CDPH disagrees with Groot regarding the removal of residential and non-manufacturing land uses, as such information greatly facilitates the identification of sensitive populations, and such information is publicly available. For example, the City of Chicago's zoning layer is freely available in the City's open data portal[5].

3.9.4 - DESIGN REPORT: LOCATION STANDARDS

Waste Management commented that district maps should be more readily available to ensure compliance with the Lakefront Protection Ordinance.

[5] https://data.cityofchicago.org

CITY RESPONSE:

CDPH will follow-up with the Department of Planning and Development and other city departments to make the information available, if possible, in the City's open data portal.

RULE 3.9.5 – DESIGN REPORT: GENERAL LAYOUT

Cronimet commented that the requirement for a general layout drawing should only apply to New or Expanding Facilities. At the same time, SIMS stated that the general layout drawing appears to be duplicative with the site survey in 3.9.6. Meanwhile, Groot suggested that "if present" be added in 3.9.5.5 for clarity.

CITY RESPONSE:

All Large Recycling Facilities must provide a general layout drawing. The requested features are consistent with the features already required in Section 7 of the Recycling Facility Permit Application Form (Version 1802). The requirements reflect higher standards to account for the potentially greater impact Large Recycling Facilities can have in comparison to smaller facilities.

As SIMS pointed out, the site survey may contain at least some of the information requested in the general layout. However, in cases of New or Expanding Facilities where certain features may not yet exist to survey, civil design drawings that depict the general layout of the facility would be necessary. In cases where the requested features can be found in other places of the application, the Design Report should state this fact and specify where in the Application they are located (i.e., page number and/or drawing number).

RULE 3.9.7 - DESIGN REPORT: PAVEMENTS

This section in the Proposed Rules provides that "All roads and parking areas within the Facility shall be paved with concrete or hot-mix asphalt, or gravel when deemed appropriate by the Commissioner." It further sets forth certain elements that must be included in the Design Report to demonstrate that the proposed pavements will be sufficient to accommodate expected traffic levels at the Facility.

In their comments to the Proposed Rules, Universal and other commenters requested the removal of the cross-section drawing requirement. Groot added that specific details of these drawings, such as "the thickness and material composition of the pavement system layers," should not be required. Groot and others further commented that asphalt should be allowed as an alternative to

concrete. At the same time, Napuck, Regency, Reserve Marine Terminals, and South Shore Recycling all requested that paving requirements be waived for particular operations within the Facility.

Waste Management asked how the Commissioner deems other paving types as appropriate and how this information would be communicated to the facilities. General Iron raised concerns that the elimination of any ponding, including on concrete surfaces, is not possible. Finally, SIMS commented that the paving requirements in 3.9.7.1 through 3.9.7.4 are unnecessary and overly burdensome.

Commenting on the Amended Proposed Rules, NRDC recommended that CDPH should strengthen its paving requirements to mandate use of concrete for new/expanded facilities, with possible allowance for rubber or plastic type surfaces, and at least the latter for all other large recycling facilities. Asphalt alone should not be permitted.

CITY RESPONSE:

CDPH deleted most of the wording Groot requested to be removed as these design details are not as critical to the review of the permit application or are already depicted in the other required drawings. However, CDPH retained the cross-sectional drawing requirement but will allow for a narrative description of the paving system in place of the drawing.

For Existing Facilities, CPDH deems existing pavements to be appropriate unless CDPH has notified the Permittee in writing that the facility paving, or any portion thereof, is inadequate. For New or Expanding Facilities, CDPH will inform the applicant in writing of any deficient or unacceptable pavement being proposed or already in use at the facility. Such deficiencies must be corrected before CDPH will issue the permit or before CDPH will allow the Facility to begin operation.

CDPH understands that imperfect grading, settlement, and normal wear and tear may cause shallow depressions on pavements. Such depressions may accumulate water after it rains or under heavy watering for dust suppression. CDPH may provide for allowances through the permit conditions, provided the applicant can demonstrate the following to CDPH:

1. The Facility has a vector control plan that addresses mosquitos.

2. The standing water is not occurring in areas subject to truck traffic. Ponded water on traveled areas should be promptly backfilled with aggregate and be repaired as soon as possible to minimize dust generation and track-out.

3. The ponded water will dissipate or will be removed (using a sump pump, absorbent, or other means) within 72 hours[6] of a rain event.

4. The Facility is judiciously applying water based on weather conditions (temperature, relative humidity, etc.), and in-situ moisture content, as well as utilizing appropriate misters, sprinkler heads, water cannons, and/or other devices/systems specially designed or suited for dust-control applications.

Paved roads generate significantly less dust than unpaved roads. According to U.S. EPA's AP42, paving has an estimated 99 percent control efficiency for particulates over unpaved roads[7]. Paved roads also facilitate sweeping and cleaning. For these reasons, the Amended Proposed Rules require all internal roadways and work areas traveled by heavy-equipment that are within 100 feet from a public way or adjacent property to be paved with concrete or hot-mix-asphalt. This new requirement applies only to New or Expanding Facilities and replaces the concrete paving requirement that was in 3.9.7.4 of the Proposed Rules.

In response to NRDCs comments to the Amended Proposed Rules, as mentioned above, paved surfaces generate much less dust than unpaved surfaces and are easier to clean. Based on these criteria, asphalt and concrete are essentially equivalent. While concrete is generally more expensive to install, asphalt is more costly to maintain over time. CDPH leaves it up to the Owner or Operator to weigh the cost-benefit of both options. No matter which material the Owner or Operator chooses, the Facility must comply with the fugitive dust requirements, absence of standing water, and sweeping requirements set forth in the rules. The Final Rules require all internal roadways or surfaces subject to truck traffic within 100 feet of the property line to be paved with concrete, asphalt, or equivalent paving systems as approved by the Commissioner. The last option allows for the possibility in the use of rubber and plastic pavement types as recommended by NRDC.

---

[6] This is consistent with the minimum design requirements for dry bottom basins specified under the City of Chicago Stormwater Ordinance Manual. Page C-35. https://www.chicago.gov/content/dam/city/depts/water/general/Engineering/SewerConstStormReq/2016StormwaterManual.pdf

[7] U.S. Environmental Protection Agency Emission Factor Documentation for AP-42 Section 13.2.2. Page 2-3. https://www3.epa.gov/ttnchie1/ap42/ch13/bgdocs/b13s02-2.pdf

RULE 3.9.8 - DESIGN REPORT: UTILITIES

Waste Management sought clarification regarding inconsistencies between 3.9.5.7 and 3.9.8 regarding who must provide utility location information. Groot commented that the requirement to demonstrate the peak demand for utilities in 3.9.8.2 should be removed as the information requested in 3.9.8.1 should be sufficient. In addition, Groot commented that the information asked in 3.9.8.3 be removed because this information is not available during the permitting stage.

SIMS commented that the requirements in 3.9.8.1 to 3.9.8.3 are unnecessary and overly burdensome.

CITY RESPONSE:

CDPH confirms that the requirement to provide utility locations only applies to New or Expanding Facilities. To remove the inconsistency noted by Waste Management, CDPH deleted 3.9.5.7 from Section 3.9.5 (listing items that must be included in the general layout drawings).

With respect to Groot's first comment, CDPH left the two paragraphs unchanged as they request different types of information. Section 3.9.8.1 asks for the locations of utilities, while 3.9.8.2 requests calculations of peak utility demands. If the documentation in 3.9.8.3 is not available during the permitting stage, this should be stated in the permit application along with an explanation of why the information cannot be provided with the application. CDPH will later require this information to be provided as part of CDPH's post-construction/pre-operation inspection.

CDPH believes that the requirements under 3.9.8 are necessary for the design of New or Expanding Facilities to assure that the facility has adequate utilities to safely handle the applicant's proposed operating rate and business needs. Although Existing Facilities are not required to furnish this information, CDPH may require similar information as part of the permit review stage to support Modifications involving the installation of new equipment that is powered by electric or gas utilities.

RULE 3.9.9 - DESIGN REPORT: WATER SOURCES

Waste Management noted apparent inconsistencies between 3.9.5.8 and 3.9. While 3.9.5.8 asks all Facilities to provide the locations of primary water sources and water distribution system components, 3.9 requires the same information only for New or Expanding Facilities.

SIMS commented that the site survey discussed in 3.9.6 could and should depict the locations of water sources and fire extinguishing materials or other chemical dust suppressants. SIMS added that the remainder of 3.9.9 is not related and overly burdensome.

CITY RESPONSE:

CDPH confirms that Waste Management is correct in that the requirement to provide the location of water sources and distribution systems in 3.9.5.8 applies to all Facilities. For clarity, CDPH removed this duplicative requirement in 3.9.9.1. CDPH notes that only New or Expanding Facilities are subject to 3.9.9.

In response to SIMS's comments, the applicant may simply refer to any information already provided in other sections of the application. CDPH believes that in addition to the locations of the water sources, the remaining requirements under this section are necessary to demonstrate that the proposed New or Expanding Facility can supply the required volume, rate, and pressure for the intended cleaning, dust-suppression, or fire-safety application.

RULE 3.9.10 - DESIGN REPORT: SITE SECURITY

Regarding the demonstration of site security in the Design Report, Reliable commented that the word "access" should be replaced with "entry" in 3.9.10 and that paragraph 3.9.10.1 should be reworded to say: "A description and specifics of the barriers that prevent unauthorized entry to the facility." Reliable also requested that the language in 3.9.10 and 3.9.10.1 be consistent with the current rule (Article XX, Section 3.0(1) in the General Recycling Facility Rules), which requires applications to include a demonstration that facilities are secure from unauthorized entry.

Waste Management asked what the intent of this section is and asked if certain areas of the Facility, such as scales, roadways, and parking, require securing. Waste Management also asked if vehicular gates and chain-link fencing are acceptable security devices.

CITY RESPONSE:

CDPH maintained the word "access" over the word "entry" as the difference is semantics, and "access" is a more general term and can be used for both ingress and egress points. CDPH also did not rephrase 3.9.10.1 as Reliable requested, because other items such as signs are not necessarily physical barriers, but are used to prevent access by notifying the public of the nature of the Site, who may access it, and at what times. Finally, to clarify, these requirements are in

addition to or supersede the screening requirements under section 3.0(1) of the General Recycling Facility Rules and 11-4-2640(d) of Article XX. These requirements are being promulgated under CDPH's broader rulemaking authority beyond Article XX, as detailed in the preamble of the Final Rules.

As for Waste Management's comments, the intent of this section is to seek specific details in how the applicant will comply with Section 3.0(1) of the General Recycling Rules that require, among other requirements, that the facility is secured from unauthorized entry. The specific areas of the Facility that must be secured are left to the applicant. However, CDPH expects potentially dangerous areas such as around stockpiles, flammable storage areas, and fixed equipment to be secured from unauthorized access. Also, areas subject to fly-dumping or vandalism should be secured. Vehicular gates, supplemented with a security guard, and chain link fencing of sufficient height (note perimeter barrier requirements in 3.9.18) are acceptable security devices.

RULE 3.9.11 - DESIGN REPORT - STRUCTURES AND FIXED EQUIPMENT

Several commenters, including Tower Alloys and SIMS, indicated that the requirements in this section are overly burdensome and unnecessary. SIMS added that older structures should be grandfathered and exempted from current fire code provisions. Further, Waste Management indicated that items in 3.9.11.1 and 3.9.11.3 might not be available for older facilities. Still, other commenters requested that the requirements should only apply to New or Expanding Facilities.

CITY RESPONSE:

As stated in the section's opening paragraph, the requested information is to demonstrate that all structures and fixed equipment can be operated in the capacity being proposed and in a safe manner. It also asks for information required in 11-4-2610 of the Code that buildings used to store recyclables meet all building and fire codes.

Furthermore, the handling capacity requested in 3.9.11.1 will be used later in the process flow diagram(s) required in 3.11.3.1. The process flow diagram, the storage calculations in 3.9.12, and other information will be used to determine the Facility's peak operating capacity in 3.10.2.2 of the Amended Proposed Rules. These calculations also support the determination of the Facility's possible emission rates for particulates and other contaminants. The emission rates, in turn, feed into the dispersion modeling if one is required.

To address the documentation issue associated with older equipment, CDPH will accept the make and model of old equipment, if manufacturer specification sheets are unavailable, as indicated in section 3.9.10.3 of the Final Rules.

CDPH no longer requires the information in 3.9.11.2 from Existing Facilities, as these places are routinely inspected by the Chicago Fire Department's Bureau of Fire Prevention inspectors.

RULE 3.9.12 - DESIGN REPORT: TIPPING FLOOR AND STORAGE CAPACITY

Cronimet and other commenters suggested that specific tipping floor requirements, if not all, should only apply to New or Expanding Facilities. Also, several commenters such as Napuck, General Iron, and Groot requested the removal or revision of the five-percent storage requirement in 3.9.12.2. Further, Reliable asked that the rules maintain consistency in terms of "per ton" versus "per cubic yard" units. Finally, others such as Tower Alloys and SIMS commented that most, if not all, of the requirements, be deleted as they are overly burdensome and unnecessary.

CITY RESPONSE:

This section is necessary to demonstrate that sufficient space is available to screen, inspect, and unload inbound loads; that the Facility has enough space for the storage of materials, including inadvertently-accepted unauthorized materials; and to depict the footprint and location of all storage stockpiles and staging piles. Also, as stated previously, this information is necessary to determine or support the Facility's permitted operating capacity and particulate emission potential. In particular, the storage information in this section will be needed in later sections, including the process flow rate diagram(s) in 3.11.3. This information may also be used in the permit conditions to specify volume limitations such as the Staging Area limits in 4.4.2.

CDPH removed the requirement, in 3.9.12.1, for a separate dedicated tipping floor for unknown materials and the condition, in 3.9.12.2, that the area for the storage of unauthorized materials is sized to accommodate five percent of the Facility's daily capacity. The Applicant must still indicate on a drawing the size and location of the area dedicated to the screening and inspection of inbound loads.

Finally, in the Amended Proposed Rules and Final Rules, CDPH generally specified that the units must be provided in tons, except for storage volumes, which must be provided in cubic yards. One of the reasons CDPH needs to know the specific types of recyclable materials

handled is to be able to convert from a weight-basis to a volume basis. Such conversions are done often during the review of the permit application.

RULE 3.9.13 - DESIGN REPORT: WATER DRAINAGE

This section provides that: "For a New or Expanding Facility, the Design Report shall Demonstrate that adequate systems exist to handle stormwater and wastewater flows from the Facility," and goes on to specify individual items that must be included. Reliable requested to add an exception in 3.9.13, suggesting the language: "For an Existing Facility that is requesting an expansion only in storage volume or material processed, Water Drainage review will be limited to the impact of the increase in storage or processing volume on existing conditions."

In addition, Groot commented that 3.9.13.1 (requiring a stormwater management plan) be removed and that the phrase "along with a copy of the permit application(s)" be removed from 3.9.13.2 (regarding the Facility's NPDES and MWRD discharge permits).

CITY RESPONSE:

CDPH generally agrees with Reliable and incorporated the following sentence in the Final Rules: “For Expansions that result in no increase to the physical size of the Facility, the drainage review may be limited to the impact of the increase in storage or processing volume over existing conditions.”

The Amended Proposed Rules and Final Rules retained the language in 3.9.13.1 to ensure any necessary site improvements are made at New or Expanding Facilities, including all stormwater ordinance requirements that minimize flooding, ponding, and off-site impacts.

CDPH also retained the phrase "along with a copy of the permit application(s)" in 3.9.13.2 to inform the setting of permit conditions. The incorporation of permit applications prepared for other governmental agencies can also be used to satisfy the information requirements of these rules and help reduce the burden on applicants. If such stormwater-permitting information is not available at the time of the application submittal, the application should state so and provide a reason why the documentation could not be provided with the application. CDPH will require any missing information to be submitted and approved prior to issuing the permit, as part of

CDPH's post-development/pre-operation inspection, or as a special condition in the permit.

RULE 3.9.14 – DESIGN REPORT: TRAFFIC

To bring consistency with 17-13-0905-B of the Zoning Code and remove ambiguity, with respect to what the Design Report must demonstrate, Groot suggested the replacement of the phrase "traffic generated by the Facility will not significantly affect existing traffic flows" in the first paragraph with "the Facility is designed and located as to minimize the impact on the existing traffic flow in the surrounding area." Similarly, Groot also suggested to replace "that traffic generated by the Facility will not interfere with the flow of traffic or exceed the intended level of service of any public street or right-of-way" in 3.9.14.6 with "the Facility is designed and located as to minimize the impact on the existing traffic flow in the area." Groot then commented that the traffic count in 3.9.14.7 should only be during the morning and evening peak traffic periods.

Reliable recommended replacing the word "affect" with the term "impact" in the first sentence. Also, Reliable commented that 3.9.14.1 through 3.9.14.4 should be removed as existing facilities should not be required to submit traffic calculations and perform traffic studies.

Waste Management asked if exemptions can be made for facilities that are in industrial areas, as other businesses do not have this requirement.

Cronimet requested to use the average per day, per week or expected traffic to be used. General Iron, Napuck, and others commented that the traffic figures be submitted after the fact.

Finally, SIMS commented that the requirements under 3.9.14-3.9.14.8 should be in line with the Illinois Department of Transportation Standards and nothing else.

CITY RESPONSE:

CDPH agreed with Groot's comments and accordingly made the changes in the Amended Proposed Rules and Final Rules. These changes negate Reliable's comment to change the wording in the first sentence.

CDPH does not intend for Existing Facilities to have to hire a traffic consultant to submit their renewal applications. As such, CDPH no longer requires Existing Facilities to provide ingress/egress diagrams, sight distances, and any necessary improvement requirements contained in 3.9.14.2. However, the Amended Proposed Rules and Final Rules retained the remaining traffic requirements for Existing Facilities as this information can be determined by the applicant without a traffic professional and are necessary to assess actual traffic in and out of the Facility

and gauge if the Facility has adequate truck stacking capacity. As such, the weekly number, as suggested by Cronimet, would not be sufficient.

Finally, the traffic study requirements are already required for waste facilities. Given the similarity in traffic volumes and potential traffic impacts, the study is now also required for New or Expanding Facilities.

RULE 3.9.15 - DESIGN REPORT: EXPECTED WASTE GENERATION

General Iron recommended that 3.9.15.2 should be revised to read "estimate of Waste to be generated" as opposed to "estimate of Waste generated" in the first sentence of 3.9.15.2.

Waste Management noted that there is an inconsistency with Appendix A, in that this subsection only applies to New or Expanding Facilities, but in Appendix A, the requirements apply to Existing and Modifying Facilities.

SIMS commented that this provision would require additional and unnecessary paperwork/reporting. The facility should only be required to maintain records during the life of a permit.

CITY RESPONSE:

CDPH agreed with General Iron, and the Final Rules reflect the recommended language. Waste Management is also correct, and CDPH has corrected the inconsistency.

Regarding SIMS's comments, CDPH notes that the requirements of this section apply only to New or Expanding Facilities. This information ensures the Facility is accounting for the quantities and types of waste that can be generated at the New or Expanded Facility.

RULE 3.9.16 – DESIGN REPORT: PARKING

Concerning the requirement that the applicant demonstrates that the Facility has sufficient parking, Reliable commented that the conditions should only apply to New or Expanding Facilities. At the same time, Waste Management suggested adding "per shift" in 9.9.16.1, concerning the number of employees.

CITY RESPONSE:

CDPH agreed with Reliable. This requirement only applies to New or Expanding Facilities in the Final Rules. CDPH did not add "per work shift," as the determination of parking spaces is specified in the Zoning Ordinance. However, CDPH did add a requirement to provide the back-up calculations used in the determination of the parking requirements.

RULE 3.9.17- DESIGN REPORT: EMPLOYEE FACILITIES

Reliable and others commented that the requirement to describe employee facilities is burdensome to Existing Facilities. Reliable requests that the provision should only apply to New or Expanding Facilities.

CITY RESPONSE:

CDPH agrees with Reliable and other commenters in that Existing Facilities should not have to describe this information in the application. This requirement only applies to New or Expanding Facilities in the Final Rules. CDPH notes that Existing or Modifying Facilities must still depict the locations of employee facilities in the General Layout in 3.9.5.

RULE 3.9.18 – DESIGN REPORT: PERIMETER BARRIER

With regard to requirements for the perimeter barrier, the LRRA requested that the wording "unless otherwise enclosed by a fence or other appropriate structure, rail line, or other waterways, the design report shall …" be added in the opening paragraph of the section.

Similarly, Reliable recommended adding the wording "Unless otherwise enclosed by a fence or other appropriate structure, rail line, or waterway, the Design Report shall…".

The CDRA, Lindahl, and others commented that any increase in fence height should not apply to Existing Facilities that are already complying with current standards. Similarly, Universal and others requested that the requirements should only apply to New or Expanding Facilities. Still others, including Napuck, commented that other materials, such as metal strips and metal plates, should be allowed.

Cronimet added that a fugitive dust plan should be allowed in place of the higher barrier requirement. Furthermore, Groot commented that requirements A and B (regarding height and material composition, respectively) in 3.9.18.1 be stricken because they are too prescriptive and may conflict with the Zoning Ordinance.

Waste Management noted that the applicability of this subsection is inconsistent with the information in Appendix A. And SIMS noted that the information requested in 3.9.18 A through E can and should be depicted in the site survey in 3.9.6 and that the applicant should be allowed to certify that the steps it has taken will control noise, dust, blowing litter and unauthorized action.

Finally, in subsequent comments, on the Amended Proposed Rules, General Iron requested that "metal" be added to the list of possible materials of which the barrier may be constructed. They further requested that the section regarding approval of other types of materials use the term "noise mitigating" rather than "noise-absorption."

CITY RESPONSE:

CDPH revised Appendix A to bring consistency with the Amended Proposed Rules and Final Rules.

CDPH also revised the rules to explain the circumstances in which barriers are not needed along adjacent waterways and rail lines (in new section 3.9.17.5). The revisions also describe the information required for consideration of alternate durable materials other than concrete, cinder block, or brick (in new section 3.9.17.3).

More importantly, CDPH made several changes to reduce the burden on regulated facilities, while still maintaining a reasonable level of protection to surrounding neighbors, as described below.

First, to avoid potential conflicts with zoning standards, CDPH removed the 15-foot barrier height requirement. Second, the durable-material requirement now only applies to New or Expanding Facilities. Existing Facilities may keep their current fencing, including chain-link or wrought-iron fencing covered in slats or meshing, so long as the fencing otherwise meets the requirements of 11-4-2640(d) (including the condition "to completely obscure all materials"), and is not in violation of any Chicago Municipal Code requirements. Finally, the detail-drawing requirement now only applies to new fencing or new barriers.

In response to General Iron's comments, CDPH agreed that "noise mitigating" is the appropriate term and incorporated the requested change in the Final Rules.

CDPH also agreed to allow certain metals to be used in the barrier material. Specifically, the Final Rules read:

"For New and Expanding Facilities, the barrier must be constructed of durable material such as concrete, cinder block, brick, metal (at least 18 gauge steel or 3.18 millimeter aluminum) or other materials, including composites of the above, as approved by the Commissioner in the permit conditions."

The minimum metal thicknesses ensure the barrier meets minimum requirements for use as a sound barrier based on Federal Highway Administration guidelines.[8]

RULE 3.9.19 – DESIGN REPORT: STORMWATER POLLUTION PREVENTION

Many commenters, including Cronimet, requested that CDPH simply adopt IEPA's stormwater regulations. Similarly, SIMS commented that stormwater pollution prevention plan ("SWPPPs") requirements and best management practices ("BMPs") prepared under an NPDES permit should be sufficient to satisfy the rule's stormwater pollution prevention requirements. Meanwhile, Universal Scrap Metal Inc. and Tower Alloys requested the removal of the phrase "and their sources" from 3.9.19.2, about the required inventory of potential pollutants.

Other commenters, including Napuck and General Iron, requested exemptions for facilities that strictly discharge to sewers served by MWRD's wastewater treatment plants. At the same time, Reliable commented that the SWPPP requirement should be restricted to New or Expanding Facilities.

In its subsequent comments on the Amended Proposed Rules, General Iron stated that the requirement to describe BMPs should refer to applicable water discharge standards rather than the general removal of pollutants.

CITY RESPONSE:

The SWPPP requirement helps assure compliance with 11-4-1040 and 11-4-1410 of the Chicago Environmental Protection and Control Ordinance. Section 11-4-1040 requires that the discharge into any sewage system of the City of Chicago does not exceed maximum concentrations as set forth by MWRD, as well as specific standards listed under 11-4-1040(2). Section 11-4-1410 prohibits discharges into Waters unless under a permit issued under the Clean Water Act and all

[8] Knauer, H. S., Pedersen, S., Lee, C. S., & Fleming, G. G. (2000). FHWA Highway Noise Barrier Design Handbook. Cambridge, MA: U.S. Department of Transportation. Retrieved from https://rosap.ntl.bts.gov/view/dot/977/dot_977_DS1.pdf?

other necessary approvals and permits from federal, state, and local regulator bodies or special districts.

In consideration of the comments and given that the overall volume of discharges from Large Recycling Facilities represents only a small fraction of the flow into city sewers and Waters, CDPH removed the stormwater monitoring and sampling requirements in Section 4.7. CDPH will evaluate the need for broader stormwater-quality standards and rules in the future that are aligned with ordinance obligations and complies with the terms and conditions under the City's NPDES permits.

CDPH also removed the SWPPP requirements for Facilities that do not discharge to MS4s or Waters. However, for those sites that meet these criteria, CDPH still requires information about potential pollutants, including the source of the contaminants, to ensure that the necessary and appropriate BMPS gets implemented. CDPH will accept SWPPPs prepared in accordance with the Facility's NPDES permit but reserves the right to require additional information to account for site-specific conditions.

Finally, CDPH considered General Iron's comment and changed the requirement to say: "The description shall Demonstrate that the BMPs are designed and will be maintained to effectively remove the pollutants described in 3.9.18.2, in accordance with all applicable rules." This revision does not specifically use the word "discharge," as such term can be construed as impacting only surface waters. The BMPs must also address possible infiltration of pollutants into soil and underlying groundwater.

RULE 3.9.20 – DESIGN REPORT: NOISE IMPACT ASSESSMENT

Several stakeholders including Napuck, Reliable, SIMS, and Waste Management provided comments in response to the noise provisions contained in the Proposed Rules:

- Universal, Tower, and other commenters requested that non-shredding Facilities be exempted from the requirement to prepare a noise impact assessment.
- Napuck suggested to include language requiring noise surveys to be taken at the property boundaries and 660 feet from the property boundaries. Similarly, LRRA and Reliable suggested the collection of ambient noise levels of the surrounding area and factoring in these ambient levels into the overall assessment.
- Reliable recommended that the City increase the noise level standards, as the current limits are so low that they would prohibit most industrial activities. On the same note, General Iron recommended the deletion of the Noise Disturbance performance criteria.

General Iron also requested that the requirement that the noise monitoring plan must distinguish between on-site and off-site noise sources be removed.

- SIMS commented that the proposed rule should be revised to reflect existing noise requirements and provide for an exemption for Facilities with reasonable separation from receptors.
- Finally, Waste Management asked that the rules provide for exceptions to Facilities entirely located inside a zoned heavy manufacturing district or industrial park. Waste Management also asked how sound levels from sources are supposed to be determined.

Regarding the noise provisions contained in the Amended Proposed Rules, Reliable again expressed that the noise limits mandated under the Chicago Noise Ordinance are too low to permit any outdoor operation, rendering all enforcement arbitrary and capricious. Therefore, Reliable commented that CDPH should work with the City Council to revise the Noise Ordinance or should eliminate the requirement for a Noise Impact Assessment, particularly as it pertains to Class V operations.

CITY RESPONSE:

The noise impact assessment sets specific requirements for Facilities that request a written waiver under Rule 8.0 of the General Recycling Facility Rules. These particular requirements are being imposed under CDPH's rulemaking authority under 8-32-090(d) to address loud noises from Large Recycling Facilities and the increasing frequency of noise complaints associated with auto-shredding facilities.

To bring consistency with CDPH's noise enforcement authority[9], CDPH removed the 660-foot radius noise assessment requirement. Correspondingly, CDPH also lifted the Noise Disturbance criteria. In their places, applicants must conduct noise assessments to ensure compliance with the mechanical stationary source sound level standards in Section 8-32-090 of the Code. The recording and establishment of ambient noise levels, particularly over non-standard hours, is desirable but not required in the Final Rules.

Non-shredding activities generate loud noises that may disturb the surrounding land uses. Non shredding activities that create loud noises include, but are not necessarily limited to, the loading or unloading of scrap metal, the mechanical processing of recyclables, and vehicle noises (idling, acceleration/deceleration, slamming of tailgates, etc.). For this reason, non-shredding Facilities

[9] Under Section 8-32-090 of the Municipal Code of Chicago.

are also required to perform a noise impact assessment. Such Facilities, however, are exempted from the noise monitoring plan requirements in 3.9.20.4.

Given the potential of gas cylinders and other potentially explosive materials to be shredded by other metal shredders, CDPH extended the noise monitoring plan requirement in 3.9.20.4 to non-automobile metal shredders.

Regarding Waste Management's comment about Facilities located in heavy-manufacturing districts, Section 8-32-170(h) in the Chicago Noise Ordinance exempts sounds measured within any manufacturing district[10]. This exemption does not exclude sounds generated within any manufacturing district that is measured outside the boundary of the manufacturing district. For this reason, Facilities located in a manufacturing district are still subject to the noise impact assessment requirements.

In response to Waste Management's question on how sound levels from sources are supposed to be determined, the Final Rules state that sound levels may be determined through calculations based on an inventory of sound levels of noise-generating activities at the Facility, or through direct measurement with a sound pressure level meter. The applicant may use published sound levels or sound-power specifications provided by equipment manufacturers. Further, the applicant may determine levels based on a work plan prepared and performed by a noise-abatement engineer or qualified sound consultant.

To reduce the complexity and the burden to affected Facilities, CDPH removed the one-band octave component of the sound calculation in 3.9.20.1, and the requirement of having to distinguish on-site and off-site noise sources in 3.9.20.4.

Finally, in response to Reliable's subsequent comments to the Amended Proposed Rules, CDPH notes that the Final Rules retained the provision from the Amended Proposed Rules allowing Existing Facilities that have not been found to have violated any applicable noise standard or ordinance in the previous three years to request an exemption from any or all of the noise impact assessment requirements. CDPH believes making such a request for an exemption is

[10] Note that 8-32-170(i) of the Municipal Code of Chicago exempts sounds or vibrations measured within the Stockyards Planned Manufacturing District (PMD 8). The exception also exempts sounds or vibrations measured outside the boundary of PMD 8 if the properties in which such sounds or vibrations are or may be measured were located within an Industrial Corridor (as defined in Section 17-17-0274) as of May 1, 2014 and were not improved with dwelling units as of May 1, 2014.

straightforward, provided the Facility has not had a noise complaint and has not been found to have violated the Noise Ordinance.

RULE 3.9.22 – DESIGN REPORT: AIR QUALITY IMPACT ASSESSMENT

Commenters such as Universal Scrap recommended that non-shredding facilities be exempted from the requirement to conduct an Air Quality Impact Assessment. Many other commenters, including the LRRA, the CDRA, Reliable, and SIMS, requested the omission of the entire section. Reliable commented that compliance with IEPA's Registration of Small Sources (ROSS) requirements should be sufficient.

Regarding the stack-testing requirement, SIMS commented that the sampling should be provided under a sampling plan and sampling results approved by a relevant federal or state agency within the prior five years. Further, in its subsequent comments on the Amended Proposed Rules, SIMS asserted that existing facilities should not be required to do air modeling. SIMS commented there is no reason to do modeling (which results in a "predictive estimate" of emissions), given that SIMS will be doing actual monitoring. SIMS also stated modeling is not necessary to determine monitor placement, since the weather station will determine upwind and downwind locations.

Along similar lines, Reliable expressed that Class V facilities should not be required to collect and report information about air quality, other than generalized examination of the presence of particulate matter. SIMS further commented that the Final Rules should exempt mobile source diesel engines from the air modeling study. SIMS believes that the City's idling reduction plan is sufficient to address PM10 from mobile sources.

Regarding the sensor calibration plan in 3.9.21.2.3 of the Amended Proposed Rules, SIMS commented that the site-specific correlation factor requirement should be replaced with "calibration in accordance with the monitor manufacturer's requirements." A similar sentiment was also expressed by Reliable. Further, SIMS noted that the Amended Proposed Rules were silent on how to develop the stated correlation factor or what acceptable criteria would be.

Regarding the determination of a baseline metals assessment in 3.9.21.2.3 of the Amended Proposed Rules, Reliable commented that Class V Facilities process only Type D materials, and these materials do not release metallic Hazardous Air Pollutants such as lead, cadmium, chromium, manganese, and nickel. Therefore, Reliable asserted that they should not have to have samples analyzed for Hazardous Air Pollutants. Reliable added that this requirement imposes an unnecessary and burdensome requirement that is not reasonably related to the City’s objective of reducing fugitive dust from Class V operations.

In addition to Reliable's comments, General Iron requested that the scope and purpose of the baseline metals assessment for metallic HAPs should be identified, so that data generated and submitted by affected facilities is consistent. General Iron stated that the scope and purpose impact the number, frequency, and location of the baseline samples required. General Iron also noted that a monitor that is capable of measuring continuous PM10 concentrations will not provide a particulate matter sample that can be analyzed for metals. If the intended metals assessment is to include particulate matter samples for a Facility, the sampling and analysis methods as well as the number, frequency and locations of samples must be identified to ensure consistency of the data generated by affected facilities.

Conversely, the NGOs indicated that they strongly support the requirement that all Consequential Facilities conduct emissions and air modeling studies, and to publicly report the results of such studies as a condition of receiving their permits. The NGOs added that CDPH should require more frequent stack sampling, either annually or when the feed stream changes significantly.

The NGOs also recommended that CDPH should strengthen the emission and air modeling study provision by requiring the use of baseline air quality monitoring data, collected via monitors placed at the site, as part of the demonstration. The NGOs also recommended filter-based metals monitoring data to be included in the air study.

The NGOs further recommended that CDPH should implement the air monitoring and control requirements of the Proposed Rules through its air-permitting programs, rather than through the recycling permit program. Finally, the NGOs proposed that the required sampling plan in 3.9.22.4 be moved to Section 4.8 so that it will be applicable to all Large Recycling Facilities and not just Consequential Facilities.

In subsequent comments, NRDC asserted that CDPH should retain and enhance all monitoring requirements, including keeping the modeling of air toxics. NRDC added that PM10 monitoring alone is insufficient to assess air quality impacts and health risks, as the mass concentrations of metals in the PM10 can be at toxic levels, even if overall PM10 level is low. Further, NRDC stated that the modeling for toxics would only present a small incremental effort by Operators, given IEPA's increased practice of requiring air modeling for new proposed synthetic sources of emissions. Meanwhile, SETF urged CDPH to retain the mandatory assessment for VOCs in the Final Rules.

NRDC also recommend that CDPH should not follow Wisconsin's air toxic rules, and should instead adopt more robust and protective approaches from other states like Michigan, Texas, and

California. In addition, NRDC asked CDPH not to presumptively allow the use of airport data but instead compile available onsite meteorological data from the multiple existing monitoring efforts within the city at bulk material facilities and to process this data to create a usable general met data set for modeling. They suggested that CDPH could seek a modest increase in its permitting fees to cover the cost of compiling and processing this met data to then provide to applicants.

CITY RESPONSE:

During the 2014 promulgation, and subsequent 2019 amendment, of the Air Pollution Rules for Control of Emission from Handling and Storing Bulk Materials ("Bulk Material Rules"), CDPH intentionally excluded materials that were handled or stored under a recycling, reprocessing or waste handling facility permit under Chapter 11-4 of the Code. However, the recent health concerns associated with emissions from the handling of scrap metal and construction and demolition debris, and the increasing frequency of citizen complaints related to these operations, led CDPH to adopt similar air quality requirements for Consequential Facilities.

The air quality requirements for Consequential Facilities reflect and expand on the provisions in the Bulk Material Rules. Expanded requirements consist of 1) requiring an air dispersion modeling study; 2) adapting the minimum number of air monitors required based on proximity to sensitive receptors and the result of the air dispersion modeling study; and 3) providing for real-time notification of RALs to CDPH. The Proposed Rules, however, do not require filter-based sampling of manganese-bearing materials as required under the Bulk Material Rules.

In addition, in response to SIMS's comments, CDPH clarified that engine emissions from on-road mobile sources do not have to be addressed in the modelling. Second, CDPH notes that air dispersion modeling is necessary for many reasons, such as the fact that it is not possible to measure the air quality at every location at the Facility, at all times. Wind direction, wind speed, and meteorological factors that impact the dispersion of air pollutants are in constant flux. As an example, the wind rose from Chicago O'Hare Airport in Figure 1 shows wind directions can frequently come from all directions each year. The air dispersion modeling can identify areas where elevated PM10 levels can migrate offsite, the contribution of PM10 from each source at the Facility, and which particular sources may need controls or close attention.

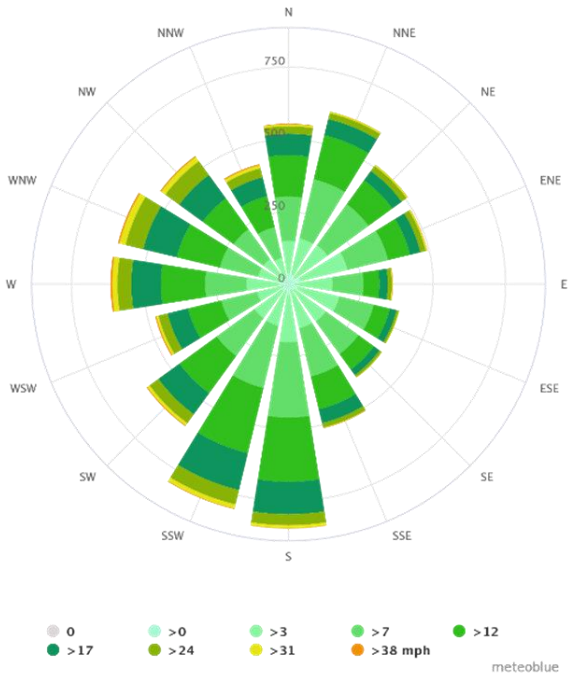

Figure 1 - The wind rose for Chicago O'Hare International Airport shows how many hours per year the wind blows from the indicated direction[11]

Further, the Final Rules mandate the determination of a site-specific correction/correlation factor for dust monitors that use light-scattering nephelometers. Most, if not all non-FEM dust monitors use this technology. Manufacturers or vendors calibrate these instruments using a standardized sample of fine particles. Because nephelometers' accuracies can be negatively affected by variations in size, color, shape, and index of refraction of the sampled particles (Aeroqual Limited, 2013) (Met One Instruments, Inc., 2011)[12,13] a site-specific correlation factor is necessary. The Final Rule points to manufacturers' procedures in determining this site-specific factor. Generally, the correlation factor is determined by dividing the total concentration determined by gravimetric sampling by the light scatter (instrument) average concentration.

[11] Meteoblue. (n.d.). Climate Chicago O'Hare International Airport. Retrieved from https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/chicago-o%27hare-international-airport_united-states-of-america_4887479

[12] Aeroqual Limited. (2013). Dust Sentry User Guide V 4.1. doi:https://www.aeroqual.com/wp-content/uploads/Dust-Sentry-User-Guide.pdf

[13] Met One Instruments, Inc. (2011). E-Sampler PArticulate Monitor Operation Manual- Revision M. Retrieved from https://metone.com/wp-content/uploads/2019/05/E-Sampler-9800-Rev-M.pdf

While the expanded monitoring requirements assure more effective monitoring of fugitive dust emissions from Consequential Facilities, they add considerable costs over the Bulk Material Rules requirements. To help offset these costs, the Amended Proposed Rules incorporated the following changes from the Proposed Rules:

1) Reduced the scope of the air dispersion modeling to strictly focus on PM10;

2) Allowed the consolidation of multiple air monitors located on the same side of the Facility and within 100-feet from each other[14]; and

3) Removed the requirement of FEM-certified air monitors in 4.8.3.1 and permit the use of monitors that meet EPA's Tier III Supplemental Network Monitoring guidelines (near-reference monitors).

It is unclear how the collection of baseline data, as suggested by the NGOs, will strengthen the emission and air modeling study. The purpose of the air dispersion modeling is to estimate the concentrations of PM10 at the site and at receptor locations from on-site emission sources as determined in the emissions calculation. Over three years of hourly meteorological data is used to determine if and where exceedance of the NAAQS standards might occur. This data may then be used to determine the locations of air monitors and help identify specific emission sources requiring more attention or controls. For existing facilities, CDPH may request during the permit-review process that the modeling be conducted following the installation and operation of the monitors, if the collected data can be used to further inform or validate the model.

However, CDPH believes the collection of this type of data is essential in the calibration of the PM10 monitors, mainly since the Amended Proposed Rules are no longer requiring the use of USEPA-certified FEM monitors. Accordingly, CDPH added in 3.9.21.2.2 of the Amended Proposed Rules, a calibration plan that includes the determination of a site-specific correlation factor between the particulate monitor's data and the mass of particulate measured by filter-based sampling method. Also, 3.9.21.2.3 of the Amended Proposed Rules require that the above samples be analyzed for metallic Hazardous Air Pollutants, including lead, cadmium, chromium, manganese, and nickel. This additional data will be used to assess if the default RAL in Section

[14] For example, if three air monitors are hypothetically required on the east side of a facility (perhaps because the entire east side is within 660 feet of a Sensitive Area), and the entire length of the east side is less than 100 feet, the three monitors may be replaced by a single monitor located between where the two end monitors would have been required.

4.8 is sufficiently protective, whether further metals analysis is required, or if a site-specific RAL is needed.

CDPH agreed with Reliable that Class V facilities handling only uncontaminated soil and clean construction or demolition (C/D) debris should not have to conduct a baseline metals analysis. The Final Rules no longer require Facilities that do not handle scrap metal or metallic recyclable materials to conduct sampling and laboratory testing for metals.

In response to General Iron's comments pertaining to the metals assessment, the purpose of the assessment is to periodically determine the fraction of metallic HAPs in the PM10. This will allow estimation of the concentration of these metals based on the PM10 readings recorded by onsite PM monitors. The estimated values can be used by CDPH for preliminary health-risk assessment purposes and to determine if additional controls or monitoring may be necessary.

CDPH is aware of only one real-time dust monitor available for purchase that incorporates a low-volume sampler. Therefore, in most instances, a separate sampler would be required. Per General Irons' recommendations, the Final Rules specify the specific EPA or NIOSH test methods for the gravimetric and metals analysis.

The metals analysis is required to be conducted every permit term or every time the site-specific calibration above is due, whichever timeframe is shorter. CDPH notes that the sample can be simultaneously analyzed for PM10 and metals content, so it makes sense to do both at the same time.

Finally, regarding the NGOs' comment on moving 3.9.22.4 to Section 4.8, CDPH removed this requirement, as characteristic stack-emissions data are already available for the City's two existing auto-shredding facilities. Consistent with the NGOs' recommendations, CDPH plans to address pollutants other than fugitive particulates, deal with point sources, and administer any future stack testing through CDPH's air-permitting program. However, CDPH will monitor the composition of the shredder feedstocks by tracking the tonnage of vehicles shredded under the quarterly reporting requirement in Section 4.17 of the Amended Proposed Rules.

In response to NRDC's subsequent comments relating to the high toxicity of heavy metals (even if the overall PM10 concentration is low), CDPH agreed that the dispersion modeling should also address heavy metals. Thus, in the Final Rules, Facilities that handle scrap metal or metal recyclables must evaluate metallic HAPs in the air modeling study. These metallic HAPs include antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium compounds.

CDPH will also make weather and PM10 monitoring data collected at Bulk Storage Facilities available in the City's open data portal. CDPH will also investigate the feasibility of acquiring and making available other meteorological surface observations and soundings data to provide applicants with a complete set of meteorological data necessary for detailed emissions modeling. At this time however, CDPH will require that air-dispersion models follow EPA guidelines.

Pertaining to NRDC's and SETF's comments on retaining and/or expanding the original modeling requirements under the Proposed Rules, CDPH decided to limit the scope of the air-quality aspects of the rules to particulate and particulate-related contaminants, for reasons already stated in other sections of this responsiveness document.

D. OPERATING PLAN REQUIREMENTS

RULE 3.11.1 – OPERATING PLAN: TYPES OF RECYCLABLE MATERIALS

Many of the comments to this section and the following two sections (3.11.2 and 3.11.3) centered on concerns about the potential disclosure of proprietary or sensitive information, and the unavailability of the requested information during the permit-application stage.

On the subject of the disclosure of proprietary information, SIMS commented that the requirements should be tailored to protect the confidentiality of the sources of material purchased by the applicant facility. Napuck suggested that CDPH follow guidance by the Institute of Scrap and Recycling Institute ("ISRI"), while Groot suggested the Department seek more general description of material sources

Regarding the unavailability of the information during the application process, Universal Scrap, General Iron, and others commented that the requested information would be better submitted as part of a periodic report, such as a semi-annual report.

General Iron also requested the removal of the term "emergency" to describe the plan for handling unauthorized material in 3.11.1.4, and to add language that allows for the acceptance of certain unauthorized materials to remove the danger posed by such substances away from the public.

CITY RESPONSE:

As mentioned in CDPH's response to the Rule 3.5 comments, applicants may request CDPH to treat any information they deem secret or proprietary with confidentially pursuant to Section 114-310 of the Municipal Code.

CDPH reviewed ISRI's policy regarding governmental reporting of recycling activities.[15] CDPH believes the information requested in the Proposed Rules is compatible with ISRI's position that such reporting should be limited to the furnishing of material quantities, without information pertaining to specific vendors or customers, the cost of recyclable materials purchased, or the sales price for the finished product that is sold. Further, CDPH notes that Chapter 11-5 of the Code already requires similar information to be reported annually to the Department of Street

[15] Note that this paper is no longer available in ISRI's website at https://www.isri.org/docs/default-source/policyposition-statements/reporting-recycling-activities.pdf.

and Sanitation. However, accounting for the above and in consideration of Napuck's comment, CDPH revised 3.11.1.1, with respect to what the operating plan must include, as follows:

A list of the general types of materials accepted and processed at the Facility. Such general descriptions may include, but not necessarily be limited to, 1) the grades of materials or commodities as defined by Institute of Scrap Recycling Industries (ISRI), 2) the material categories required to be reported pursuant to Chapter 11-4-2535 of the Code, or 3) the material types listed in Section 8 of the Recycling Facility Permit Application Form (Version 1802), as amended.

The information requested in 3.11.1 and 3.11.2 should readily be available to Existing Facilities. New Facilities may infer this information based on the types of materials the applicant intends to handle, the possible sources of these materials, and the potential unauthorized waste typically associated with these recyclables. Based on this information, the applicant should be able to design the plans required in 3.11.1.3 and 3.11.1.4, as well as inform on the planning towards the Prohibited and Regulated Materials requirements contained in Section 9.0 of the General Recycling Facility Rules.

In response to General Iron's comment on being allowed to accept certain unauthorized materials (CDPH assumes these include unpressurized gas cylinders, gas cylinders with unknown contents, etc.), CDPH may allow for the acceptance of these typically-unauthorized materials in the permit conditions if the applicant demonstrates that the Facility can safely and responsibly handle and lawfully dispose or recycle these materials.

Finally, in consideration of General Iron's request to remove the word "emergency" in 3.11.1.4, CDPH moved the emergency requirement to a different section.

RULE 3.11.2 - OPERATING PLAN: QUANTITY OF MATERIALS

As mentioned previously, many of the comments to 3.11.2 centered on privacy concerns and the potential unavailability of the requested information during the permitting process.

In addition to the above concerns, many commenters pointed out the significant burden imposed on Existing Facilities in preparing the information required in 3.11.2.5. Waste Management noted that the calculation required in subparagraphs (A) and (B) (regarding the volume of traffic and material) involves the review and utilization of over 26,000 hours of data, spanning over 1,100 days. As such, many commenters requested specific revisions to reduce the burden.

1. Groot requested the removal of 3.11.2.5 (A) and (E) and change the frequency in 3.11.2.5 (C) and (D) from monthly to annual.

2. Reliable requested that Class V facilities be exempted from the requirements of 3.11.2.5 (B), as such numbers contribute to the City's construction and demolition recycling ordinance and the Chicago Climate Action Plan objectives.

3. Cronimet requested that CDPH only require averages for all values.

In addition, Waste Management sought clarification as to whether materials specified in 3.11.2.3 (including paper and cardboard) would still require placement in covered containers if these materials are stored indoors.

Finally, General Iron asked that 3.11.2.6 (C) (requiring a summary of three years' worth of complaints) be removed, as the facilities may not necessarily be aware of all complaints received. As a potential solution, Groot suggested that the reported complaints be limited to complaints received by the owner/operator.

CITY RESPONSE:

Before addressing the comments, CDPH notes that it made significant revisions in this section. Most notable is that all Facilities are now required to provide the information in 3.11.2.1 through 3.11.2.4, as this information is needed to determine the quantity of materials a facility may accept. However, CDPH deleted 3.11.2.2 (regarding locations and volumes of materials on-site), as the requirement is redundant to the information already asked for in 3.9.12. The information requested in 3.10.2.2 of the Amended Proposed Rules (see below), will be used to determine or support the permitted rate authorized in the permit.

3.10.2.2 Detailed calculations estimating the peak daily quantities of material that can be accepted at the Facility taking into consideration the process flow rates in 3.10.3.1 , the staging and storage volumes in 3.9.11.3, *the truck stacking* capacity in 3.9.13.2, *and other pertinent factors. The estimated material quantities shall be provided on a tons per day basis and include all assumptions used in the calculation.*

Comments regarding the disclosure of proprietary information were addressed in CDPH's response to Rule 3.11.1.

In consideration of the comments to 3.11.2.5, CDPH deleted the requirements under (A), (B), and (E). CDPH moved the criteria in (C) and (D) to the quarterly reporting section in Section 4.17 of the Amended Proposed Rules. To allow estimation of the daily averages that would have

been provided in (A) and (E) above, CDPH added: "the number of operating days" to be provided in the quarterly report.

Further, to address potential issues sooner, CDPH moved the chronological summary requirement under 3.11.2.6 to the quarterly reporting section of the rules. CDPH also accepted Groot's suggestion that only complaints received by the Owner/Operator should be reported.

Finally, as to Waste Management's question pertaining to the containerization of newsprint, paper, and cardboard indoors, CDPH may allow, through permit conditions, the staging of these materials on the ground or in uncovered containers, when such staging occurs inside a building and in compliance with the City's Bureau of Fire Prevention requirements.

RULE 3.11.3 - DEVICES, APPARATUS, AND PROCESSES

Commenters, including Napuck, Cronimet, and Universal, commented that the requirements in this section should be removed, as such information regarding a facility's devices and processes, is private and proprietary. General Iron added that the provisions in 3.11.3.2 and 3.11.3.3 should be removed as they are overly burdensome. SIMS added that only OSHA compliance should be required.

Groot recommended minor changes in wording in 3.11.3.1, to say: "A flow diagram(s) indicating the material flow between each major Process line or Process step on the diagram. The diagram(s) shall also indicate Processing rates for Process lines, staffing requirements, storage capacity, mean staging time, and inflow /outflow rates, including operating hours."

CITY RESPONSE:

As mentioned previously, comments pertaining to the disclosure of proprietary information were addressed in CDPH's response to Rule 3.11.1.

The requested information in this section is necessary to demonstrate that the Facility can safely handle the proposed or permitted daily quantity. For example, the information required in 3.11.3.1 serves many purposes, such as the identification of process bottlenecks and the quantification of the overall process rate. It is necessary for the calculation of emissions from individual processes.

The information requested in 3.11.3.2 and 3.11.3.3 helps assure that the Facility is complying with all applicable safety standards and requirements. Besides, the data requested in 3.11.3.3 takes advantage of sampling required by OSHA to address heightened concerns toward torch

cutting and similar activities that otherwise might have necessitated additional sampling under the Proposed Rules.

In consideration of Groot's comment, CDPH rewrote 3.11.4.6 as follows:

"A flow diagram(s) indicating the material flow between each major Process line or Process step. The flow diagram shall depict the flow of material between each structure, fixed equipment, storage and staging piles, unloading areas, and loading areas. The diagram(s) shall also indicate process rates for structures and fixed equipment, staffing requirements, storage capacity, mean staging time, and inflow /outflow rates, including operating hours."

RULE 3.11.4 - FIRE PREVENTION

Groot requested a revision to 3.11.4.6 to state "a description of the responsibilities of all applicable employees in the event of a fire, " adding the word "applicable" to the proposed rule. SIMS commented that all that should be required is a certification that the facility is in compliance with the municipal code and all applicable local, state, and federal laws, rules, and regulations regarding fire prevention.

CITY RESPONSE:

CDPH did not agree with Groot's proposed revision as all employees must be aware of their responsibility in the event of a fire. For example, every employee needs to be mindful that they should head out the nearest exit and proceed to designated rallying points outside the facility.

CDPH also disagrees with SIMS that certification is all that is necessary. The applicant must also demonstrate how they are complying with all municipal code requirements and all applicable local, state, and federal laws, rules, and regulations regarding fire prevention. In addition, CDPH personnel assist the Chicago Fire Department in emergency responses dealing with hazardous materials and have utilized information contained in waste and recycling permit applications.

RULE 3.11.9 - OPERATING PLAN: DISPOSAL FACILITIES

With regard to the identification of disposal facilities to which residual waste from the Facility will be hauled, commenters such as Napuck and General Iron recommended that the requested information be updated as needed, as such details continually change over the three-year permit term. General Iron added that the rule should be revised to require facilities only to send waste to properly licensed/permitted disposal facilities.

SIMS commented that only the identification of the disposal facilities should be provided, and it should be considered confidential business information.

Finally, Waste Management asked if municipal waste and sewage facilities need to be identified in 3.11.9.1.

CITY RESPONSE:

In consideration of the comments and the fact that the information in 3.11.9.2 and 3.11.9.3 are most relevant to waste facilities, CDPH decided to delete this section.

RULE 3.11.11 - OPERATING PLAN: HOURS OF OPERATION

Napuck requested the removal of the operating hours limitations. In addition, Waste Management asked if a new or additional waiver is required if the Facility has already been granted extended hours of operation "in the permit or zoning."

CITY RESPONSE:

The operating hours limitation in this section cannot be deleted as it echoes the existing requirements under Section 8.0 in the General Recycling Facility Rules. Section 8.0 does not reference prior approvals by the Zoning Administrator or other City departments. However, in its review of waiver requests, CDPH takes into account previous approvals by relevant City departments. CDPH grants after-hours waivers in three-year durations corresponding to the permit term. Therefore, the applicant must apply for the waiver as part of each permit renewal application.

For further discussion of operating hours, see the section on Rule 4.2 below.

RULE 3.11.12 - OPERATING PLAN: CLOSURE PLAN

Napuck requested the removal of the requirement for disclosure of cost estimates for closure activities and financial information to demonstrate a company has the financing to complete closure activities. Cronimet requested the removal of the entire section. Finally, SIMS commented that recycling facilities are not landfills or transfer stations and only a simple certification by the applicant stating that all waste will be properly disposed of should be enough.

CITY RESPONSE:

In consideration that Class V facilities are the only recyclers that are required to provide financial assurance, the Amended Proposed Rules only require such facilities to provide the cost estimate and financing information under 3.11.12.4 and 3.11.12.5.

Due to the polluting nature of many recycling operations, and to ensure closed facilities are secured and do not pose a hazard to human health and the environment, CDPH retained the closure plan, material removal, and equipment decommissioning requirements.

E. OPERATING STANDARDS

RULE 4.2 - HOURS OF OPERATION

Napuck requested the rescinding of the operating hours limitations. To a lesser extent, Reliable commented that the hours for facilities in manufacturing areas should be between 5 am and 9 pm and those located in a Planned Manufacturing District within 660 feet of a residence, 7 am to 9 pm Similarly, Lindahl commented that a 7 am limitation is overly burdensome, considering its business must cater to the construction industry and that a 6 am start time is preferred and would allow facilities to space traffic out before morning rush hour.

Waste Management sought clarification on whether the limits on the operating hours apply across the board, regardless of the facility's location or zoning. Waste Management further requested that recycling facilities be exempted if other surrounding facilities can operate outside of the standard hours.

CITY RESPONSE:

Section 8.0 (1) of the General Recycling Facility Rules states that "no recycling facility shall receive, process, transport, or otherwise handle recyclable materials between the hours of 9:00 pm and 7:00 am unless a written waiver is granted by the commissioner." CDPH does consider the facility's zoning district and the surrounding land uses in the granting of waivers. However, without exception, recycling facility operators must still apply for a waiver if they wish to operate beyond the standard hours specified in the General Recycling Facility Rules.

CDPH is in the process of revising the General Recycling Facility Rules and will review potential necessary changes to Section 8.0 to ensure consistency with the standards under the Chicago Noise Ordinance and other applicable Municipal Code of Chicago requirements. Meanwhile, CDPH replaced the explicit hours in 4.2 and instead referred to the hours specified in Section 8.0, as amended.

RULE 4.3 - MATERIAL VOLUME LIMITATIONS

Napuck requested rescinding the material volume limitations, while the Construction & Demolition Recycling Association (CDRA), the Land Reclamation and Recycling Association, Reliable, and Lindahl commented that exceptions should be made for facilities handling Type D recyclable materials and Class V recycling facilities.

CITY RESPONSE:

The volume limitations set in the permit are necessary to ensure the Operator is not exceeding the design and operating capacities demonstrated in the application, and to ensure the Facility will not cause harm or pose a nuisance to the community. Besides, the rule does allow for exceedance of the permitted volumes during legitimate emergencies. To allow flexibility, CDPH replaced "*shall notify the Department by email at envwastepermits@cityofchicago.org by no later than 10:00 am of the next business following the emergency*" with "*shall notify the Department in accordance with the permit*."

RULE 4.4 – MATERIAL MANAGEMENT AND ENCLOSURE

This section of the Rules sets forth standards for the temporary "Staging" of materials and longer term outdoor "Storage" of materials, including special requirements for storage of Auto Shredder Residue (ASR).

Many commenters raised concerns regarding the 20-foot height restriction of storage stockpiles in 4.4.1.1. The CDRA and Lindahl commented that the stockpile height limit of 20 feet should not apply to Type D materials, as the proposed limit does not serve any environmental benefit or purpose. SIMS recommended that the permitted maximum height limit of 30-feet[11] be maintained, while Napuck requested that the limit should be in the 40-foot to 50-foot range. Napuck also recommended the removal of the barrier requirement in 4.4.1.2, as such barriers would create unsafe working conditions.

Many commenters also raised issues with the Staging Area requirements in 4.4.2. SIMS stated that such provisions should be removed, citing they are overly burdensome, while other commenters requested the partial removal or revision of specific rules in 4.4.2.

1. General Iron commented that the staging pile limit of 30 feet should be revised to 45 feet based on situational factors.

2. Land Reclamation and Recycling Association ("LRRA") suggested the deletion of the two-workday volume limit in 4.4.2.2 and the 48-hour processing requirement in 4.4.2.3.

3. LRRA, along with Reliable, commented that the daily staging pile reporting requirement in 4.4.2.4 should not be required for Class V recycling facilities or facilities handling Type D recyclable materials.

4. Cronimet and General Iron requested that the daily reporting requirement in 4.4.2.4 should be changed to monthly.

Finally, in their comments to the Proposed Rules, Waste Management inquired if the requirements in 4.4.2 apply to indoor staging piles.

In subsequent comments on the Amended Proposed Rules, Reliable further commented that the definition of "Staging Area" should better accommodate Class V facilities. According to Reliable, unlike the other kinds of operations, Class V operations must store and stage materials for more than five days. Reliable stated that its raw stockpiles are driven by demolition activity, and its processed material inventories are driven by construction activity, neither of which are within the control of the operator. Reliable asserted that the 5-day limit will encourage fly dumping. increase truck traffic, and increase costs, as well as the environmental burden, of City construction projects. Finally, Reliable asserted that the significant bonding required to operate a Class V facility will ensure that the finished recycled stockpiles can and will be removed in the unlikely case of the closure of the business.

In its subsequent comments, General Iron stated that the definition of "Staging" should be revised to allow the temporary storage of materials for more than five business days in the event that a mechanical breakdown prevents the processing of materials on a timely basis.

With regard to storage areas, SIMS commented that the height limit of storage piles should be 30 feet, as it is in Staging Areas. SIMS commented that its processed material awaiting shipment to customers is steel, a "Marketable Commodity," and that there is no fire or other public health risk that would warrant these piles having a lower height than the staging piles.

The NGOs also commented on the definition of "Staging Area" in the Amended Proposed Rules, stating that CDPH should either eliminate the concept of Staging from the rules or significantly increase the applicable control requirements (such as enhanced barriers, siting buffers, and other fugitive dust measures), and further should not allow any variances for higher piles. The NGOs asserted that the Staging concept inappropriately focuses on the relatively limited duration of any given material in a stockpile and on that basis allows relaxed height limits, yet the piles themselves will exist permanently even while the exact material in the pile will turnover. They also pointed out that the constant turnover and working of the piles will result in a greater potential for emissions than from Storage stockpiles.

The NGOs further stated that if CDPH retains the Staging concept, it should clarify that any Staging is limited to a "Staging Area" and that the Storage-stockpiling requirements apply to all

material in piles from unloading that are being held longer than the allowed staging time, as well as to all materials awaiting loading onto vehicles that will not undergo further processing at the site prior to vehicle loading. Finally, they commented that CDPH should clarify how a facility and the agency will determine compliance with the holding time requirement.

Finally, with regard to the storage of ASR, SETF (one of the NGOs) recommended that Section 4.4.1 should describe the engineering features for a "bunker" and should specify that such enclosure must effectively prevent the stored material from becoming windborne. NRDC advocated for full enclosure of ASR, noting that itis a low-density material likely to become windborne. NRDC pointed to evidence of ASR escaping from recycling facilities and also stated that the hazard profile of ASR likely significantly exceeds that of petcoke, such that the fines percentage of the materials should not form a basis for rejecting full enclosure. Supplemental comments submitted by the NGOs (in December 2019 and again in May 2020) provided additional support for the assertion that ASR is toxic and should be treated as such.

NRDC also stated that the sweeping requirements in the Rules are not sufficient, as there is evidence that ASR is ending up on land a mile away and in the river, which cannot be swept. Therefore, they stated that CDPH should require all ASR, and particularly untreated ASR, to be kept at all times in full enclosures (either enclosed conveyors or fully enclosed building structures, depending on the stage of ASR handling) and not allowed to be kept in Staging Areas. Finally, NRDC asked CDPH to clarify which, if any, types of stockpiles will no longer need to use 3-sided barriers as originally proposed, given CDPH's statement that Class V Facilities are already required to use barriers.

CITY RESPONSE:

Limiting pile heights, particularly for materials with high fines content (soil, crushed concrete, and similar materials), lowers fugitive dust emissions by reducing the surface area exposed to wind erosion and higher wind speeds.[16] CDPH notes that under Section 11-4-2000(D) of the Municipal Code, reprocessable construction/demolition material facilities, such as Lindahl's, may have stockpiles up to 30 feet tall. However, this higher limit does not apply to recycling facilities.

[16] See Section H of the City's Official Response to Public Comments on the Proposed Rules and Regulations For the Handling and Storage of Bulk Material Piles.
https://www.chicago.gov/content/dam/city/depts/cdph/environmental_health_and_food/CityofChicagoResponsetoCommentsReceivedonBulkMaterialRules.pdf

The 20-foot-high stockpile requirement is a legal limitation imposed in Section 7-28-070 of the Health Nuisance Ordinance. Section 7-28-070 states that: "*No yard, lot, premises or enclosure or part thereof, shall be used, kept, maintained, or operated, for the purpose of storing used lumber, metal or other secondhand building material, dismantled motor vehicles or parts thereof, crates, cases, boxes or other discarded material unless the said yard, lot, premises or enclosure is entirely surrounded by a fence eight feet in height, which fence shall be located at least eight feet from all public ways surrounding the property and none of said articles shall be piled nearer than six inches to, nor higher than said fence; provided, however, that if said articles are piled at a greater distance than eight feet from any public way they may be piled to a height equal to the distance from the public way, but in no case to a height exceeding 20 feet."* (Emphasis added.) Therefore, CDPH cannot increase the allowable height of storage piles as requested by SIMS. CDPH also notes that, even if a material stored at a Facility is considered a "marketable commodity," it is also a "recyclable material" under the Code and must comply with the requirements for such material.

To provide operational flexibility to recycling facilities, the Proposed Rules allowed for the staging (short-term holding) of recyclable materials up to 30-feet high without a variance, so long as the staging occurs within a Staging Area. If the Facility complies with the Staging Area requirements and complies with the fencing requirements, the Facility is not considered to violate 7-28-070. If the applicant desires to have taller stockpiles inside the Staging Area, the applicant must follow the variance process in Section 6.0 of the Proposed Rules.

In consideration of the provided comments, CDPH made the following changes in the Amended Proposed Rules and in the Final Rules:

- Removed the requirements in 4.4.2.2, 4.4.2.3, and 4.4.2.4 (conditions for 30-foot staging area stockpiles). Instead, CDPH will rely on the data submitted in the quarterly reports required in 4.17, along with the tipping floor and storage capacity estimates in 3.9.11 of the Amended Proposed Rules, to reasonably estimate the timely turnover of stockpiles.

- Provided that the Facility must furnish detailed information such as hourly or daily throughput data to CDPH upon written request from the Department. This is necessary in the event CDPH needs to investigate a potential violation of the height and material turnover time limits; and

- Removed the 4-foot barrier requirement in 4.4.1.2. Note that under the current General Recycling Facility Rules, Class V recycling facilities must still maintain barriers around stockpiles.

Finally, CDPH added language explicitly stating that the requirements in 4.4 do not apply to indoor stockpiles.

In response to Reliable' s subsequent comments, CDPH notes that stockpiles at permitted Class V Facilities such as Reliable' s are already capped at 20' under the General Recycling Facility Rules and permit conditions. In addition, Class V facilities are also required by ordinance to process construction and demolition debris within 48 hours of receipt at the Facility, and to dispose of residual waste generated from the processing of said debris within 24 hours. Therefore, staging Type D materials beyond these periods would be a Code violation. (See Section 11-4-2565(b) of the Municipal Code.)

Further, irrespective of customer needs or demands (even if the customer is the City of Chicago), the Operator must abide by the limitations imposed in the permit. These limits were determined based on the maximum design operating capacity demonstrated or stated in the permit application by the Permittee.

In response to General Iron's comments, CDPH acknowledges the need for temporary piles in Staging Areas to account for situations including mechanical issues. This is why materials in Staging Areas are allowed to be in piles up to 30' high. However, such placement must be temporary in nature. The five days is intended to be long enough to account for temporary staging over the weekend when the Facility may not be in operation.

To address NRDC's comment relating to staging of materials, the Final Rules now define "Staging" as "the temporary placement or piling of materials awaiting Processing at the Facility in Staging Areas explicitly authorized in the permit. For purposes of this definition, 'temporary' means any material placed in the Staging Area is removed for Processing within five business days or less. The retention of materials in a Staging Area longer than five business days or the placement of Post-Processed material or other material not requiring further Processing at the Facility in a Staging Area is considered Storage." CDPH will further enforce the intent of Staging Areas and Staging through permit conditions as necessary.

In response to the NGOs' comments, CDPH notes that the 30-foot limit for piles in Staging Areas brings parity with other similar (non-recycling) facilities that have 30-foot pile height limits, and that such piles will be monitored and subject to dust control requirements. In addition,

as mentioned in response to General Iron's comment above, the higher piles in Staging Areas are necessary to provide allowances in the event of emergencies, equipment breakdowns, and for other safety reasons. However, the Final Rules do require applicants to provide justification for the need for 30' high piles, and permit conditions will ensure adherence with the pile height limitations. In addition, the Rules already provide that CDPH may request throughput data and other information to determine compliance with the time limits in the Rules. This, of course, is in addition to the on-site inspections that CDPH regularly conducts.

With regard to the storage of ASR, CDPH agreed with SETF and changed the language in the Final Rules accordingly (in new Section 4.4.2). CDPH also replaced the word "bunker" with "enclosure." In addition, CDPH added general engineering design criteria that "such enclosure must be durable, weatherproof, and structurally sound with side walls designed to resist the deadload of the ASR material piled next to it and the live load of equipment pushing ASR material onto the walls."

However, CDPH is not requiring "full enclosure" to the extent requested by NRDC. From an air-quality perspective, the air modeling and monitoring requirements in the Final Rules focus on respirable particles (particles small enough to penetrate into the lungs), specifically PM 10, and not necessarily larger sized particles, including light fibers from auto fluff. CDPH can still require additional controls of ASR though permit conditions should the modeling and continuous monitoring find PM10 emissions from ASR to be a potential or actual issue.

CDPH believes more aggressive inspection and cleaning practices will address the issue of ASR fibers accumulating in surrounding neighborhoods. To this end, the Final Rules require auto-shredding Facilities to also clean up ASR fibers from sidewalks, parkways, public areas, and private properties with the owners' permissions. In addition, Operators must extend street-sweeping and cleaning activities an additional 660 feet (one block) if ASR fibers are observed.

However, CDPH did add a new provision to address NRDC's concerns. If a Facility is found liable of violating any pertinent Municipal Code ordinance or rule relating to the offsite deposition of ASR fibers, the Facility must implement additional onsite measures to control this material. Such measures must consist of structural controls, which may include complete enclosure of ASR storage and processing areas, the use of covered conveyers, removal of fiber-producing materials from vehicles prior to shredding, or other controls deemed necessary by the Commissioner.

Regarding the three-sided barriers, the Final Rules do not require such containment for any stockpile, other than the enclosure of post-processed ASR. CDPH notes that Paragraph 14(2)(d) of the General Recycling Rules requires all stockpiles at Class V facilities to be contained on three sides with concrete blocks, jersey barriers, or similar materials approved by CDPH.

RULE 4.5 - VEHICLES AND EQUIPMENT

With regard to minimizing emissions from vehicles and equipment, Universal and others commented that CDPH should just follow federal and state DOT rules. SIMS said that the tarping requirement in 4.5.1 should be removed altogether.

Napuck requested a modification in 4.5.1 and 4.5.2 so that the requirements only apply to outbound vehicles containing items prone to becoming airborne, and inbound loads that are company-owned vehicles. General Iron added that the phrase "but not limited to" should be removed from 4.5.2 (regarding dust control practices at railcars and barges). Further, LRRA and Reliable requested CDPH to change 4.5.2 to add "*for new, existing, expanding, modifying, or consequential facility, vehicle traffic, processing volume, and storage volume of recycled material through the facility as reported on the triennial permit review will be reduced by the total volume reported of outbound barge or rail shipment that illustrate the benefit of the reduction in daily vehicle traffic due to the alternative shipping methods."*

In 4.5.3, regarding mechanical stationary equipment, Waste Management requested that "where applicable" be added at the end of the sentence.

CITY RESPONSE:

The tarping requirement in 4.5.1 is boiler-plate language taken from the recycling facility and waste facility permit templates, which facilities have been subject to for years. In addition, it is consistent with vehicle-covering requirements in the Illinois Environmental Protection Act. Per Title 35 Part 212.315 of the Illinois Administrative Code, *"no person shall cause or allow the operation of a vehicle of the second division as defined by 625 ILCS 5/1-217 or a semi-trailer as defined by 625 ILCS 5/1-187 without a covering sufficient to prevent the release of particulate matter into the atmosphere, provided that this rule shall not pertain to automotive exhaust emissions."*

Nevertheless, to better align with State tarping requirements under 625 ILCS 5/15-109.1 in the Illinois Vehicle Code, CDPH reworded the first sentence in 4.5.1 to read "*All loaded inbound and outbound trucks carrying dirt, aggregate (including ores, minerals, sand, gravel, shale,*

coal, clay, limestone, or any other ore or mineral which may be mined), garbage, refuse, or other similar material susceptible to becoming windborne shall be sealed or tarped."

While Operators may not have authority over all in-bound trucks or trucks not owned by the Operator, the Operator can still penalize or ban offending vehicles or companies from using the Facility. For this reason, CDPH makes no exception for these vehicles.

CDPH chose to retain the phrase "but not limited to" in 4.5.2 to emphasize that other controls not identified explicitly in the rule may be used. An example of control not expressly mentioned, but that is certainly acceptable, is the loading or unloading of railcars inside an enclosure.

CDPH added "as applicable" at the end of 4.5.3, as suggested by Waste Management.

RULE 4.6 - NOISE MONITORING AND STANDARDS

Universal commented that the noise monitoring requirements in 4.6 should exclude nonshredding operations. Tower Alloys added that the noise monitoring rule should be revised because sound generated by recycling facilities are minimal when compared to other noises such as sounds from trains and traffic. General Iron requested the removal of the phrase "shall not cause Noise Disturbance and" in the first sentence of 4.6.

Napuck and General Iron commented that the noise monitoring in 4.6.1 should also apply to other metal-shredding operations, not just auto-shredders. General Iron further requested that the noise report in 4.6.1.3 be due quarterly instead of weekly.

SIMS proposed the deletion of 4.6.1.1 through 4.6.1.3, stating that these provisions go beyond current requirements and are not feasible "due to the technical challenge with distinguishing between on-site vs. off-site noise sources." SIMS further stated that there should be "an exemption for Facilities with reasonable separation distances from receptors."

CITY RESPONSE:

The noise-monitoring requirements are only applicable to metal-shredding Facilities that operate outside the standards operating hours in Section 4.2. The requirements are primarily in direct response to the large volume of noise complaints received by the City regarding explosions from auto-shredding facilities. The continuous noise-monitoring data being required is necessary to document the occurrence of these random and infrequent explosions and facilitate the investigation of these types of complaints.

Comments regarding the removal of the Noise Disturbance criteria, the applicability to other shredders, and SIMS' remarks above, were addressed in CDPH's response to feedback to the Rule 3.9.20, regarding noise impact assessments.

The imposed requirements are within CDPH's rulemaking authority under 8-32-090(d) and are consistent with Code requirements.

RULE 4.7 - WATER QUALITY STANDARDS AND MONITORING

Napuck, General Iron, and other commenters requested that facilities that exclusively discharge to systems tributary to MWRD's wastewater treatment plants not be subject to the water quality monitoring and sampling requirements. SIMS added that the rule appears to unduly expand the applicability of MWRD's monitoring requirements for significant industrial dischargers (SIUs). In 4.7.1, Groot suggested adding "unless all Storage and Processing of Recyclable Materials is performed under roof." CDRA, LRRA, and Reliable commented that the monitoring and sampling requirements be should be stricken entirely.

CITY RESPONSE:

The requirements under this section were removed, as explained in CDPH's response to the comments to 3.9.19 above.

RULE 4.8 - AIR QUALITY STANDARDS AND MONITORING

In its response to the Proposed Rules, SIMS requested the provisions in 4.8.3 be deleted, stating that they go beyond current wind and dust monitoring requirements. SIMS commented that the cost of compliance "would be substantial (potentially well in excess of $500,000 including annual O&M costs)," that there would be a "technical challenge with distinguishing between on-site vs. off-site dust sources," and that there is "no reasonable basis" to justify such burdens. Relatedly, Lindahl added that the requirements are an unnecessary burden as particulates can be monitored by visual inspection.

Universal and Tower Alloys requested that the requirements in 4.8.2 be revised to only include shredding operations, while Cronimet requested that the quarterly opacity measurement requirement in 4.8.3.12 be stricken. CDRA and LRRA commented that the determination of compliance with the opacity limit in 4.8.2.2 should be done at intervals consistent with state and federal requirements. Reliable requested CDPH to reword the end of the sentence in 4.8.2.2 to "… or parking area that exceeds an opacity of 10% based on 1) a six-minute average of 24

consecutive observations recorded at 15-second intervals; and 2) visual reading conducted by a person trained and certified to evaluate visible emissions."

Cronimet, General Iron, CDRA, and others commented that the baseline RAL in the Proposed Rules should be consistent with EPA's National Ambient Air Quality Standard (NAAQS) for PM10 of 150 micrograms per cubic meter (ug/m3), averaged over 24-hours. CDRA and LRRA recommended that the RAL should be a value (e.g., EPA's 24-hour PM10 limit) set on top of the ambient background concentrations collected by the site operator.

Many industry commenters raised concerns that the 15-minute averaging time is nearly impossible to achieve, and the 50 ug/m3 RAL is too low, does not account for ambient background concentrations and will result in too many false positives disruptive to business operations. Similarly, in its subsequent comments to the Amended Proposed Rules, SIMS recommended that CDPH should use an averaging period of three hours to reduce the risk of spurious and/or inconsequential monitored values that could occur with an RAL set at a 15-minute averaging period.

In subsequent comments, Reliable commented that the RAL should take into consideration typical background conditions pertaining to air quality. For instance, ambient site background levels during nonoperating hours may be 25 micrograms per cubic meter. Accordingly, Reliable believes that in this scenario “the RAL should then be 175 micrograms per cubic meter for such a site as this incorporates the background and limit into a complete standard for compliance.”

Reliable commented that the RAL Notification should be revised to be in accordance with 40 CFR 60.11(c), in that the RAL Notification should apply “at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable U.S. EPA and IEPA standards.” Reliable added that Operators should not be required to transmit RAL data to CDPH within 15 minutes of any exceedance, because these exceedances are not violations, and can be misconstrued by the public (e.g. through FOIA) as such, or interpreted as doing harm to the community. They stated that CDPH should follow state and federal standards, which require reporting within 24 hours of an RAL, (and that inherent in such reporting standard is the application of state and federal modeling standards, which do not use a 15-minute modeling window).

General Iron requested specific changes to the Proposed Rules including:

> a) changing the frequency of monthly air-monitoring-data submission to be quarterly instead of monthly;

b) removing the requirement to notify CDPH of a Reportable Action Level (RAL) exceedance within 15 minutes;

c) removing the requirement for providing CDPH with average wind speed and direction over a 15-minute period;

d) providing for exceptions during periods of high wind;

e) removing the requirement to submit a report to CDPH following each day an RAL exceedance occurs; and

f) establish minimum requirements for fugitive dust plans to ensure consistency.

In subsequent comments to the Amended Proposed Rules, General Iron commented that CDPH should specify the minimum concentration of PM10 that an approved monitor must be capable of measuring. Otherwise, there could be an issue should CDPH require an alternate RAL, after the Operator has already purchased and implemented the monitors. In addition, General Iron provided the following subsequent comments to the Amended Proposed Rules:

a) What actions, if any, should be taken if an RAL exceedance is attributed to an offsite source?
b) Do all the requirements under 4.7.3.13 of the Amended Proposed Rules have to be met to be eligible for an exemption of the Consequential Facility air monitoring requirements?
c) Regarding the opacity measurement in 4.7.2 of the Amended Proposed Rules, General Iron asked how opacity readings should be taken to meet conditions “conducive to the generation of fugitive dust (i.e. hot, dry, windy weather).” General Iron contends that this requirement essentially guarantees failure of the 10% opacity requirement. General Iron pointed to activities such as routine sweepings, vacuuming, or application of water to roadways that would fail the ten percent opacity standard.

Transfer station operators such as Groot and Waste Management also commented on the Proposed Rules. Groot recommended removing "into the atmosphere" at the beginning of 4.8. while Waste Management asked a series of questions as listed below:

a) Would exceptions be made for individual Facilities such as smaller operators that are entirely indoors, Facilities located in an industrial park, and Facilities covered by a Clean Air Act Permitting Program (CAAPP) permit?
b) Can the additional monitoring in 4.8.3.2 be in place of the monitoring required in 4.8.3.1?
c) Can weather data from external sources such as nearby airports or other NOAA locations be used for continuous weather monitoring purposes?
d) At what point do the visible dust standard in 4.8.2.1 apply in circumstances where the Facility is inside a larger property?
e) Do the PM10 monitoring and weather data notification need to be real-time and aggregated in 15-minute increments? If so, Waste Management raised concerns over the complexity and cost of such a system.

In contrast to the above, the NGOs generally commented that the Proposed Rules do not go far enough in the protection of human health and the environment and provided the following recommendations:

1. The NGOs noted that only Consequential Facilities are required to prepare a fugitive dust plan that includes air monitoring. The NGOs contend that allowing remaining Facilities to escape is unwarranted with respect to their potential for harmful dust. Further, the NGOs recommended that Facilities be subject to compliance with the fugitive dust controls under the Bulk Material Storage Rules implemented through CDPH's air permit and air certificate of operation programs.

2. The NGOs recommended that auto-shredders be required to use emission-controls for VOCs, such as catalytic oxidizers or biological-based controls, where feasible. Also, they stated that storage tanks containing high vapor pressure liquids should be monitored using a FLIR camera to detect VOC emissions.

3. The NGOs recommended that CDPH require the handling and storage of all auto shredder residue ("ASR") to be conducted in fully enclosed buildings outfitted with air pollution controls, and require the transfer of all ASR between the shredder and any subsequent enclosed spaces via covered conveyors.

4. The NGOs recommended that CDPH require enclosures for the storage of recyclable materials, consistent with the requirements for petcoke, coal, and manganese. The NGOs noted that enclosures would not only protect against

harmful air pollution but will also prevent the creation of contaminated stormwater runoff at the source and prevent visual blight and odors.

5. The NGOs recommended the prohibition of all outdoor torch cutting to the extent possible and required buildings where torch cutting occurs to be outfitted with robust air pollution controls. They added that CDPH should set requirements to minimize any torch cutting that cannot be conducted indoors.

6. Due to the impacts of fires on air quality, the NGOs recommended that CDPH should require thermal camera hot spot identification and fire suppression systems at recycling facilities.

7. The NGOs recommended that 4.8.2.1 should be amended to specifically prohibit visible dust emissions beyond the fence line of any recycling facility. They noted that the current language might be read to allow facilities to create visible emissions beyond the fence line before recording and taking corrective action to eliminate the visible dust.

8. The NGOs recommended that the provision requiring quarterly opacity monitoring in Section 4.8.3.12 should broadly apply to all recycling facilities, not just Consequential Facilities. In addition, they suggested that the manual opacity monitoring using EPA Method 9 be conducted once daily at all locations where the 10% opacity limit applies when there have been less than 0.1 inches of precipitation in the previous 24-hour period. They also recommended, "the development of site-specific night-time opacity monitoring protocols to ensure that facilities meet the 10% opacity limit during night-time hours."

9. The NGOs recommended that CDPH require fence line, filter-based, monitoring for metals at auto shredders. They stated that leaving metals monitoring to case-by-case determinations does not provide the public with the assurances that these extremely harmful pollutants will be identified and addressed in a timely fashion.

Environmental groups such as NRDC and SETF provided subsequent comments in response to the Amended Proposed Rules. NRDC strongly objected to CDPH's replacement of FEM monitors with less accurate/precise air sensors, stating that the Tier III sensors in the Amended Proposed Rules:

1. Cannot be used to assess compliance with legal requirements such as NAAQS;

2. May not deliver sufficiently precise/unbiased data to achieve the "RAL" concept in the rules;
3. Due to their perceived impreciseness, may provide Operators with a legal argument against enforcement or other actions by CDPH relating to RAL exceedances; and
4. Are cheaper and allowing their use would be unfair to bulk material storage facility operators that installed FEM instruments.

Further, NRDC urged that, should CDPH allow Tier III Sensors in the Final Rules: 1) the RAL be reduced to well below 150 ug/m3 to account for the relative imprecision of air sensors; and 2) the rules include a provision that facilities whose air sensors indicate an adverse impact on air quality be required to install regulatory-grade monitors (i.e., "ramp up" monitoring). NRDC advocated for retaining the 50 ug/m3 RAL and suggested that the 150 ug/m3 standard violated the NAAQS standard for PM10.

SETF commented that the Final Rule should include mandatory FLIR monitoring requirements for processing equipment (similar to what the Rules require for stockpiles), along with corresponding recordkeeping, reporting and corrective action requirements.

CITY RESPONSE:

Although the fugitive-dust potential at many recycling facilities is similar to many bulk material storage facilities, CDPH intentionally excluded materials handled at recycling facilities when the department promulgated the Bulk Material Storage Rules back on March 13, 2014, and again on January 25, 2019, when the rules were amended to cover manganese-bearing bulk materials.

The requirements outlined in this section begin to align fugitive dust requirements at Large Recycling Facilities with air monitoring requirements already mandated for bulk material storage operations.

Fugitive emissions from recycling facilities can contain harmful pollutants such as lead, manganese, crystalline silica, and asbestos. Many of these contaminants are harmful at concentrations imperceivable to the human eye, such that monitors capable of detecting these

low concentrations are necessary. For example, OSHA's permissible exposure limits for lead[17] and crystalline silica[18] are both 50 ug/m3.

Like the Bulk Material Storage Rules, the air-monitoring requirements in the Proposed Rules focus on fugitive PM10 emissions, and the monitors may not necessarily detect PM10 from specific point sources such as tall stacks (e.g., exhaust from a large shredder unit). The air monitoring rules also do not address other types of pollutants, including VOCs from metal shredding and chemical-storage operations, and metal vapors from welding and torch-cutting activities. CDPH will continue to regulate emissions from point sources and other contaminants under its broader air-permitting program.

Unlike the Bulk Material Storage Rules, the Final Rules require air monitoring only at Large Recycling Facilities that are deemed, by the nature of their operation or their proximity to a Sensitive Area, to be Consequential Facilities. However, the Proposed Rules do have two new requirements not mandated in the Bulk Material Storage Rules: 1) an air dispersion study; and 2) real-time notification. These are being required due to the emission potential of Consequential Facilities and their immediate proximity to Sensitive Areas.

The air dispersion study is being required to assess the potential concentration of PM10 generated from Facility activities, and to further guide the placement of air monitors. CDPH requires real-time notification to timely inform both the Operator and CDPH of potential dust issues as they happen. CDPH intends to forward these notifications to the assigned CDPH air inspector so that the inspector is made aware of recurring or problematic fugitive dust episodes at the Facility.

The RALs are not meant to enforce NAAQS standards but to be an early-warning system for fugitive dust, analogous to a smoke detector in a home. CDPH's intention of the RAL-concept is not to enforce the NAAQS standard for PM10, but to allow for a more a protective and proactive approach in protecting nearby residences from fugitive dust exposure, as well as prevent associated nuisances such as accumulation of dust on cars, homes, and other property. CDPH notes that the exceedance of an RAL alone is not a violation, so long as the Operator takes the necessary responsive actions prescribed in the fugitive dust plan and complies with the recordkeeping and notification requirements. Therefore, an FEM-caliber monitor is not

[17] Inhalation PEL under 1910.1025. https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1025

[18] As specified in OSHA's Z1 Table for inhalation of respirable dust. https://www.osha.gov/dsg/annotatedpels/tablez-1.html

absolutely necessary, and a slightly less precise, but capable, instruments may be used. The cost savings may be applied towards efforts that enhance protection to the public, such as air dispersion modeling and near real-time notification.

CDPH agreed with General Iron that minimum performance specifications should be established for PM10 monitors that are not Federal Equivalent Method (FEM) certified by EPA. As EPA does not certify Tier III Supplemental Network sensors nor provide minimum guidelines for them, CDPH replaced the EPA's Tier III terminology with "Near Reference PM 10 Monitors," defined in the Final Rules as a device that measures the level of PM 10 in ambient air and meets or exceeds the specifications contained in Appendix B of these rules, or as otherwise approved by the Commissioner." Appendix B was adopted from SCAQMD's alternative PM10 method requirements in Appendix 1 of Rule 1466. CDPH generally will approve PM 10 monitors certified for use under Rule 1466[19] and will consider for approval instruments that meet performance standards for indicative ambient particulate monitors by MCERTS, a U.K. Environmental Agency Monitoring Certificate Scheme[20].

In general, the price of Near Reference PM10 Monitors is one-third to one-half the cost of FEM monitors. A common model deployed by many bulk storage facilities was Met One's E-Bam Plus, which costs approximately $13,000 per instrument. However, the biggest costs experienced by bulk storage facilities were not the cost of the instruments, but costs associated with running electrical power to these instruments. Unlike Near Reference PM 10 Monitors that can run on DC power and can be powered by solar panels and batteries, FEM instruments require AC power. Based on information provided by the bulk material storage facilities, the average cost to install a weather station and four FEM monitors was approximately $250,000. Therefore, even if Facilities do a short-term lease as recommended by NRDC, there are still significant costs involved in running power to these instruments.

In the matter of fairness to bulk material storage facilities raised by NRDC, in addition to having to perform a dispersion modeling study, Near Reference PM10 Monitors have other costs such as expenses in terms of network and notification configuration costs, and ongoing costs associated with data plans and cloud-hosting. CDPH believes these costs associated with real-time notification brings to par PM10 expenditures borne by bulk storage material facilities (not accounting for FRM sampling for manganese). Although CDPH is concerned with fairness, it

[19] https://www.aqmd.gov/home/rules-compliance/compliance/rule-1466/pre-approved-monitors
[20] (see https://www.csagroupuk.org/services/mcerts/mcerts-product-certification/mcerts-certified-products/mcerts-certified-products-indicative-ambient-particulate-monitors/).

cannot be the key consideration nor prohibit adoption of new approaches and improvements to policies and regulations.

The Owner/Operator is responsible for proper calibration of their instruments. As noted above, an RAL event in itself is not a violation. Under the Final Rules, failing to respond, notify or document the RAL is a violation. A similar approach, using the same type of instruments, is currently implemented in California under Rule 1466 discussed above. For these reasons, CDPH does not believe Owners/Operators would have a valid argument or reason to claim an instrument's lack of accuracy or precision for failing to implement the required responses to an RAL exceedance, as brought up by NRDC. In fact, it is in the Owner's/Operator's best interest to implement the most accurate and precise instruments they can afford to reduce RALs that may be due to less accurate instruments. To be clear, the Final Rules do not prohibit the use of FEM instruments but provide an option in the use of less expensive equipment that are designed and certified to perform perimeter dust monitoring that effectively detects the offsite migration of dust.

CDPH believes the timely response and enhanced protection afforded to the public through real time notification using Near Reference PM 10 Monitors are benefits that greatly exceed the disadvantages of a small loss of accuracy/precision and the ability to use the data for NAAQS compliance. Should FRM/FEM sampling become necessary (i.e., "ramp up" monitoring) due to documented state and federal violations, CDPH will require the Owner/Operator to conduct such testing under CDPH's authority spelled out in 11-4-790 of the Code, or as otherwise afforded in the Final Rules.

Relating to the RAL value, initially, CDPH chose a baseline RAL of 50 ug/m^3, as this is the permissible exposure limit for many common contaminants (e.g., lead, crystalline silica) that can come from Large Recycling Facilities. However, to address the many comments relating to the 50 ug/m3 being too low, and to consider a higher RAL such as EPA's 24-hour standard of 150 ug/m^3, CDPH reviewed data collected between April 1, 2019, and June 30, 2019, at an existing Class V recycling facility located at 3260 E 106th Street. This facility operates a weather station and four near-reference monitors, all aggregating data in 15-minute increments.

As can been seen in Figure 2, the occurrences of the 50 ug/m^3 and the 150 ug/m^3 were respectively in the 94th (821 events) and 99th (85 events) percentiles. Only in the latter number could the Operator identify the contributing sources or activities. Given these findings and in consideration of the comments, CDPH changed the baseline RAL concentration to 150 ug/m3 in the Amended Proposed Rules, and in the Final Rules. However, CDPH retained the 15-minute

averaging time over EPA's 24-hour duration as a conservative measure, to allow for more immediate response time. As demonstrated at the Class V facility mentioned above, aggregating data in 15-minute increments is readily achievable by today's weather stations and near-reference monitors.

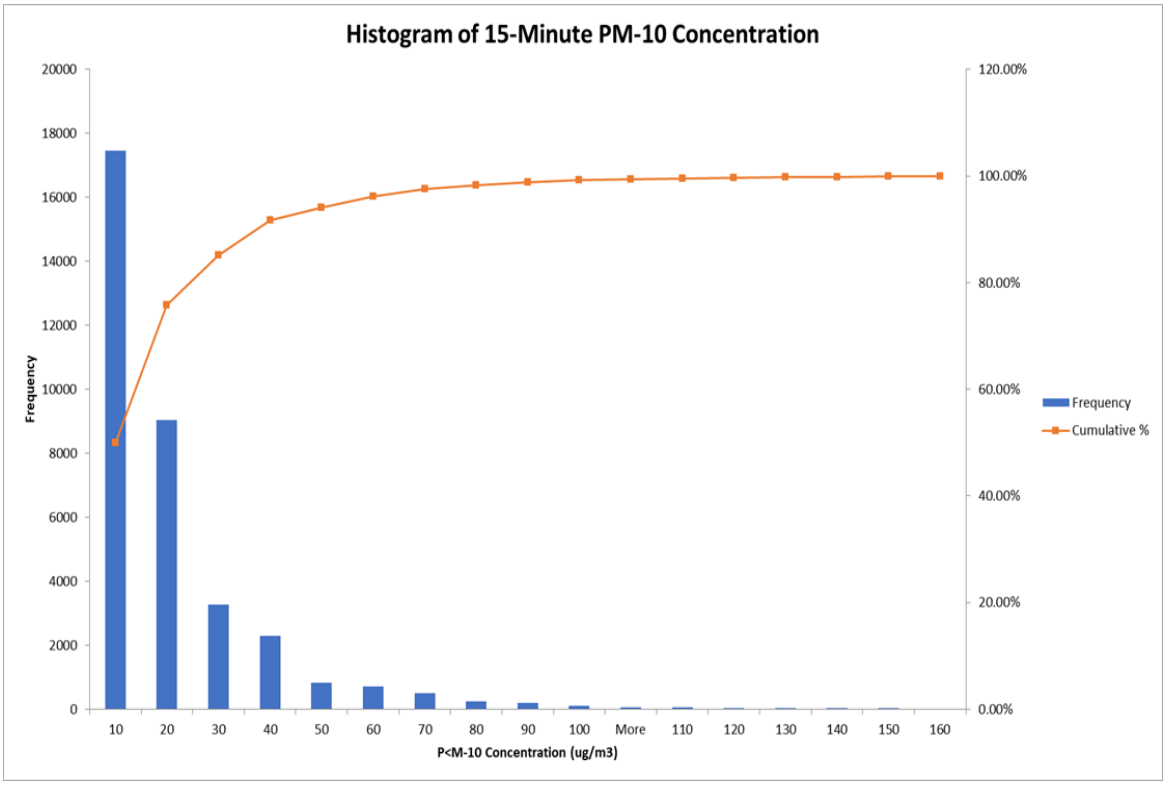

Figure 2 -Frequency of PM 10 RALs by Concentration at Class V Facility (April – June 2019)

In response to General Iron's comment on making exceptions for high-wind conditions, CDPH reviewed the windspeeds corresponding to the above Class V facility's PM 10 data. As can be seen in Figure 2, the distribution of winds over 15 miles per hour (mph)[21] occurred in the 89th percentile, while winds above 25 mph[22] occurred above the 99th percentile. The use of these windspeeds as RALs in themselves would result in hundreds (for 25 mph) to a few thousand (for 15 mph) RAL episodes. Yet, CDPH found only 10% (8 episodes) of the recorded PM10 concentrations above 150 ug/m3 that occurred over wind speeds greater than 15 mph.

[21] The Bulk Material Storage Rules defines 15 miles per hour or above as" high-wind conditions."
[22] Exception for excess wind speed under Title 35 Part 212.314 of the Illinois Administrative Code.

Interestingly, none of the PM-10 exceedances occurred at winds greater than 18 mph. The higher wind speeds may have lowered PM10 concentrations due to resulting increased turbulence and dilution. At this time, DOE is not making exceptions in the rules for high winds one way or the other but may do so in the permit conditions.

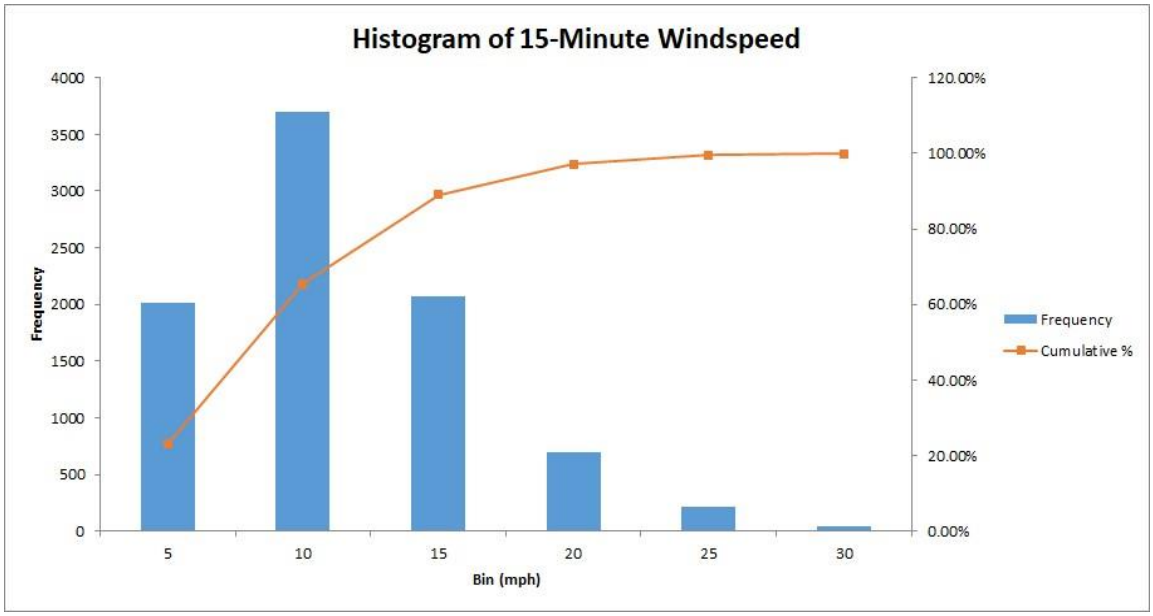

Figure 3- Windspeed Histogram at Class V Facility (April – June 2019)

In response to the comment made SIMS's in using a three-hour averaging time and NRDC's preference that CDPH retain the 50 ug/m3 RAL, CDPH investigated alternate RAL concentrations and averaging times.

First, CDPH considered using Rule 1466's PM 10 criteria of 25 ug/m3 averaged over a two-hour period. However, this would result in a large number of false positives given the hourly averages of PM 10 in Chicago (see Table 1),

Year	Arithmetic Mean	Arithmetic Standard Deviation
2013	30	31
2014	29	26
2015	23	30
2016	17	17
2017	22	21
2018	24	20
2019	27	22
Average	**25 ug/m3**	**24 ug/m3**

Table 1 - Chicago Annual Hourly PM 10 Concentration IEPA
Ambient Air Monitoring Station at Washington High School[23]

CDPH also considered using a 50 ug/m3 RAL averaged over one hour. However, upon review of the data generated from the existing Class V Facility mentioned above, this RAL would result in over 85 RAL episodes over a three-month period, all during hours when the Facility was not even in operation.

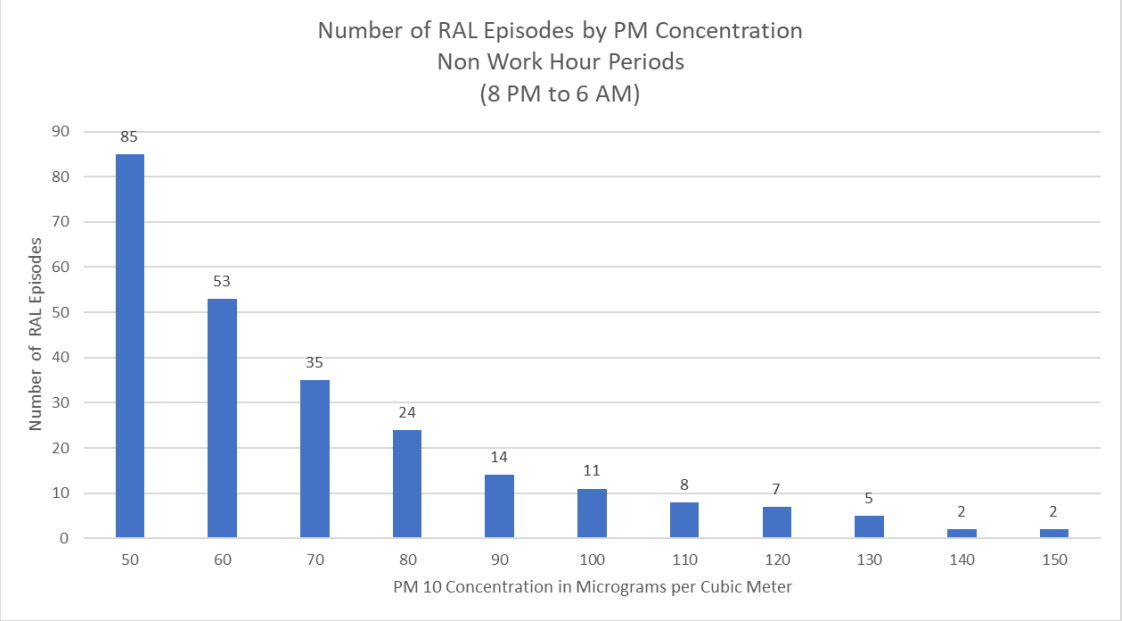

Figure 4 - Graph of Potential Hourly RAL Episodes at a Class V Recycling Facility
(April through June 2019)

Ultimately, the Final Rules retained the baseline RAL of 150 ug/m3 averaged over a 15-minute period, as was proposed in the Amended Proposed Rules. CDPH believes this RAL strikes a balance between protection of public health and minimizing false positives from ambient contributions. The Final Rules contain provisions for alternate RALs that allow for fine-tuning of a site-specific RAL that is both reliable and protective. In addition, the Final Rules allow subtraction of the upwind (i.e., background) concentration in the determination of an RAL episode, as recommended by Reliable.

CDPH again notes that the 15-minute exceedance of 150 ug/m3 is not a violation of the NAAQS's standard for PM 10. Fifteen minutes represents just 1% of the 24-hour averaging time under the NAAQS PM 10 standard.

[23] USEPA Air Data. https://aqs.epa.gov/aqsweb/airdata/download_files.html#Meta

To ease the notification burden, CDPH removed the RAL-reporting requirement in 4.8.3.10. Although the Operator no longer must submit the requested information the next day, the operator must still send the real-time notification required in 4.7.3.9 and record in the Operating Record within 24-hours, the follow up information required in 4.7.3.10 in the Final Rules.

In response to Reliable' s comment regarding 40 CFR 60.11(c), CDPH notes that this federal provision, along with its corresponding state exception in 35 IAC Part 212.214, refers to opacity standards and not necessarily to other measurements such as PM 10 measurements. CDPH will require Facilities to report RAL exceedances during startups, shutdowns, and malfunctions to account for all RAL exceedances and their causes, and in the event complaints occur during these activities.

CDPH agrees with Reliable that state and federal modeling standards do not model in 15-minute increments, as meteorological data are predominantly only available in hourly increments. However, it is not necessary, nor required, for RAL and air-modeling time increments to be in sync as they are meant for different purposes. RAL notifications can use different time durations as necessary to protect public health and to minimize nuisances. An example is the Rule 1466 mentioned above which uses two-hour and 30-minute windows in their PM 10 notification and response criteria.

Relating to potential misinterpretation of notification data by the public (as mentioned by Reliable), CDPH periodically receives PM 10, weather, and metal-sampling data over email from bulk storage material facilities and has not had this issue over the years CDPH has been collecting this data.

CDPH again emphasizes that the near real-time notification of the RAL is important as it ensures potential dust episodes are quickly addressed and allows timelier engagement by CDPH, prior to these episodes negatively impacting the public, or arising to a complaint.

Regarding General Iron's comment on opacity readings, CDPH changed the subject sentence in the Final Rules to "Opacity readings should be taken under representative weather and operating conditions." Readings should not be taken during down-times, slow periods, wet-weather conditions, or when the ground is still moist from a preceding precipitation event. CDPH's position is that the Operator should include opacity readings from street sweepers if such sweeping occurs frequently and is representative of typical conditions at the Facility. The opacity-measurement method under 35 IAC 212.109 for roadways and parking areas averages 12 readings from four vehicle passes, not just from one vehicle. Also, Operators must use street

sweepers that effectively remove dust, so as not to exacerbate the dispersion of dust. See CDPH's response to SIMS's comment to Section 4.14.

To answer General Iron's question relating to an Operator's required responses during RALs attributed to an offsite source, unless and until CDPH issues an alternate RAL in writing that compensates for the offsite source, the Operator must continue to comply with the notification and recording requirements. Although CDPH will allow an adjusted RAL, such adjustment does not impact opacity requirements, prohibition of fugitive dust offsite, and other applicable air quality requirements.

Pertaining to Waste Management's question regarding the use of meteorological data from nearby airports, NOAA locations, and other weather sources near the Facility, CDPH does not necessarily object to this practice if the Operator can timely extract the required data in 15minute increments, to comply with the RAL notification requirements.

CDPH disagrees with Waste Management that the additional monitoring mentioned in 4.8.3.2 (which may include filter-based monitoring "when PM10 monitoring does not provide sufficient information regarding Fugitive Dust for the Commissioner to adequately assess the health impacts of such emissions") should replace the continuous PM10 monitoring required in 4.8.3.1. Filter-based monitoring will not allow the real-time monitoring of PM10 and notification of RALs as required in 4.8.3.1. However, CDPH does agree with Waste Management that smaller operators and operations conducted indoors generally pose significantly lower emissions and should be considered for an exemption from the air-monitoring requirements. As such, CDPH added an exemption in 4.8.3 for Consequential Facilities that meet the following conditions: 1) conduct all loading, unloading, processing, and material storage indoors; 2) have no unpaved parking lots or internal roadways within 660 feet of a Sensitive Area; and 3) within the last three years, have not been found in violation of any air-quality laws relating to fugitive dust emissions. For this exemption, unpaved means not paved with concrete or hot-mix-asphalt.

CDPH agrees with the NGOs in that all Large Recycling Facilities, and not just Consequential Facilities, should conduct quarterly opacity measurements using Method 9. Therefore, this requirement was moved to section 4.7.2.3, so that it will apply to all facilities covered by the rules. Also, CDPH agrees that daily readings should occur on days when there have been less than 0.1 inches of precipitation in the previous 24-hour period, and this requirement was added to Rule 4.7.2.1 in the Final Rules. However, CDPH feels that Method 9 (which is a more extensive evaluation that must be conducted by a certified opacity reader) is not necessary for daily measurements. Instead, daily readings can be taken using the observational method set

forth in 35 IAC Part 212.107 (known as Method 22). Another change in the Amended Proposed Rules (and the Final Rules) is that all measurements, both daily and quarterly, must now be attached to the Facility's Operating Record.

In response to Reliable' s comment on changing the opacity limit language in 4.8.2.2, CDPH notes that Part 212.109 expressly specifies a different averaging time in the measurement of opacity from roadways and parking areas. As such, and to maintain consistency with the IEPA rules, CDPH left the wording of this section unchanged.

CDPH agreed with the NGOs' comment that all Large Recycling Facilities should prepare a fugitive dust plan. Also, most of these operations are already required to develop a dust control plan[24] under the state law per 35 IAC Part 212. Accordingly, CDPH added a requirement in 4.7.2.4 of the Final Rules that a copy of the State Operating Program be provided with the application. As the minimum content of the dust control plan is specified under 35 IAC Part 212, this helps ensure consistency among fugitive dust plans, as had been commented by General Iron.

CDPH will explore the possibility of conducting night-time opacity readings, as mentioned by the NGOs. In the meantime, CDPH believes the real-time monitoring of PM10 levels will ensure any off-site migration is detected. Further, CDPH clarified in 4.7.2.1 that no visible dust shall travel beyond the boundaries of the Facility.

In response to the NGOs' recommendation that CDPH should require thermal camera hot spot identification, CDPH added the requirement to submit a stockpile monitoring protocol that includes these cameras in 3.10.4.7 of the Final Rules.

However, the Final Rules do not require the full enclosure of ASRs or recyclable materials, nor require that these materials be moved via covered conveyors. ASRs and typical recyclable materials are not as susceptible to emitting fine particulates, as was the case for Petcoke. For example, the fines- content[25] of ASRs is closer to 5%[26], versus about 21%[27] for Petcoke. Also,

---

[24] Termed as a Minimum Operating Program under Title 35 Part 212.310 of the Illinois Administrative Code.
[25] Percent of material passing #200 sieve (.075mm opening).
[26] Taken from Figure 3 – Particle size cumulative distribution curve of ASR sample (average of 7 trials) in Characterisation of Automotive Shredder Residue.
https://www.researchgate.net/publication/266290767_CHARACTERISATION_OF_AUTOMOTIVE_SHREDDER_RESIDUE.
[27] Based on average size gradation from petcoke samples taken from KCBX North and KCBX South collected on December 13, 2014. Appendix A of City of Chicago Fugitive Dust Study.

the off-site migration of fugitive dust will be controlled under an Operating Program and through permit conditions and will be monitored by dust monitors with real-time alerting to CDPH. Any offsite deposition that does occur will be cleaned up as part of the sweeping requirements of these rules and in the permit conditions

In addition, the Final Rules do not require all torch cutting to be conducted indoors under the Amended Prod in the Final Rules. Torch cutting is not unique to Large Recycling Facilities, and CDPH permits this activity under its air permitting program. Therefore, CDPH will address this broader issue in future planned air permitting rules. Notably, however, the Final Rules do require quarterly reporting related to the quantities of metals torched, as discussed in CDPH's response to the 4.18 comments below. This will allow CDPH to gain a better understanding of the frequency of this activity, how it relates to air quality, as well as help guide future rulemaking.

Similarly, as with torch-cutting, the emission of VOCs from storage tanks are not unique to Larger Recycling Facilities. CDPH regulates these tanks under its tank-permitting and air permitting programs and will explore this issue further through these programs.

The Final Rules also do not explicitly require filter-based monitoring for metals such as manganese. Should it become necessary, CDPH can require such sampling in the future through the provisions in 4.7.3.2 of the Final Rules or under CDPH's air-permit program. CDPH added baseline sampling for several metallic Hazardous Air Pollutants in 3.9.21.2.3, which should be useful in estimating the concentration of metals in the PM 10 readings. Examples when ongoing filter-based monitoring may become necessary include instances when 1) the concentration of certain metals in the PM 10 monitoring data indicate potential exceedances of health screening levels; 2) ambient monitoring under the National Ambient Air Quality Standards program shows elevated concentrations of metals that may be attributable to metal recycling operations; 3) or other evidence that indicates high metal levels are being emitted from the Facility.

RULE 4.9 - UTILITIES

General Iron commented that the requirement for facilities to have a contingency plan for backup utility service should be removed. General Iron stated it wasn't reasonable to expect a facility with a large metal shredder to be able to provide the amount of back-up electrical capacity required to operate such machinery.

CITY RESPONSE:

CDPH is retaining this requirement as it is essential that the Facility has adequate utilities and has plans for back-up, even if the back-up plan is just knowing when and at what point the Operator should start diverting loads to other facilities. It is not the intent of this section that facilities keep operating their metal shredders in the event of a power outage.

RULE 4.10 - EQUIPMENT MAINTENANCE

Cronimet requested that this provision requiring routine maintenance be removed, stating they follow all OSHA requirements and manufacturer recommendations. Waste Management asked CDPH to revise the phrase requiring Operators "prevent usage of any vehicle or equipment that is in need of repair," as not all repairs are critical to the safe operation of the vehicle/unit.

CITY RESPONSE:

CDPH retained this requirement, as the proper maintenance of equipment is vital to the safe operation of the Facility and essential to ensure the Facility can handle the permitted amount of material. CDPH agreed with Waste Management's comment and reworded the subject sentence accordingly.

RULE 4.11 - SOURCE AND LOAD SCREENING

With regard to the requirement to remove any inadvertently accepted unauthorized materials as soon as possible, General Iron requested that the language be revised to allow facilities to accept certain "unauthorized materials" to ensure materials are removed from the recycling stream and handled safely and appropriately.

For facilities that accept construction and demolition debris, the NGOs stated that the rules should require specific load screening protocols to verify that loads are free of asbestos and lead hazards, beyond visible inspection (such as XRF readings for lead and polarized light microscopy analysis on uncharacterized ACM samples).

CITY RESPONSE:

Regarding General Iron’s comment, CDPH refers to its response to 3.11.1 above. In addition, CDPH notes that Rule 4.11 already states that such materials shall be handled “in accordance with the conditions of the permit.”

Pertaining to the NGOs' comments, many existing regulations already govern the generation, handling, and disposal of lead-based-paint-containing materials and ACMs. Class V recyclers that handle construction/demolition debris (Type D recyclable materials) primarily accept clean construction and demolition debris and uncontaminated soil that have documentation pursuant to IEPA regulations. In addition, Class V facilities are only allowed to conduct manual sorting of these materials. For the above reasons, CDPH believes the specific load screening protocols proposed by the NGOs are not warranted for recyclers that handle Type D recyclable materials. CDPH will further address this issue in the upcoming planned Reprocessable Construction or Demolition Material Facility rules.

RULE 4.12 - MATERIAL HANDLING, PAVED SURFACE

As mentioned in an earlier comment, Napuck commented that the term "paved" to include previously sought included, such as asphalt, concrete, and grindings. General Iron requested that the word "impermeable" be removed and that CDPH provide for an exemption to facilities that install a system to collect stormwater for later discharge to a treatment facility. SIMS commented that they have no objection to the storing of material that may leak fluid on impermeable pads; however, the point out that the indoor storage of such materials may be impractical.

CITY RESPONSE:

See CDPH's response to 3.9.7 comments pertaining to suitable paving materials. CDPH retained the term "impermeable." In section 4.11 of the Amended Proposed Rules, CDPH considers concrete, steel plating, geomembrane, or other material as approved by the Commissioner is considered to be impermeable.

The storage of oily materials indoors is not required but is strongly recommended to minimize the volume of liquids that may need special handling and disposal as special waste. Such liquid waste shall not be allowed to overflow and cause subsurface contamination or flow into drains not permitted to accept such liquids.

RULE 4.13 - SHREDDER AND SHREDDER ENCLOSURE

In its response to the Proposed Rules, General Iron requested that this provision be revised so that existing, new, and expanding facilities that process vehicles or appliances all must enclose their shredder. General Iron reiterated in its comment to the Amended Proposed Rules, that Existing shredders that process vehicles or potential-explosive materials should still be required

to enclose, asserting that such metal shredder without enclosusre poses a significant threat to the public due to shrapnel and other debris being discharged from the top of the shredder.

In commenting on the Amended Proposed Rules, NRDC commented that the language of the shredder enclosure provision should include minimum design requirements, including a directive to minimize air emissions to the greatest degree feasible (rather than design directives solely geared towards withstanding explosions and able to deflect objects).

CITY RESPONSE:

In the Amended Proposed Rules, CDPH only required new shredder installations that process vehicles or a potentially explosive feedstock to be enclosed. CDPH did not explicitly include appliances as not all appliances are potentially explosive materials.

In consideration of NRDC's and General Iron's recommendation, CDPH amended the Final Rules so that all shredders must "be designed to withstand internal explosions, safely deflect objects that may be ejected from the Shredder box by mechanical force or explosions, and be covered or hooded as necessary to meet state and federal air quality capture efficiency requirements."

RULE 4.15 - PAVEMENT MAINTENANCE AND CLEANING

Many commenters to the Proposed Rules, including General Iron, Napuck, and Waste Management, expressed concerns on the word "immediate" in the opening paragraph of 4.15, regarding the repair of potholes and broken pavement. These commenters felt that the immediate repair of a broken pavement is unrealistic and suggested that the word "promptly" or the phrase "within a reasonable amount of time" be used instead.

Universal and Tower Alloys commented that the sweeper requirement in 4.15.1 should not apply to non-shredding operations. Cronimet added that exceptions should be made for inclement weather. Further, General Iron suggested that the minimum street sweeping frequency should be once per day, as sweeping every 4 hours or after every 100 vehicles is overly burdensome. Moreover, Groot requested that the wording "and those within a quarter-mile of the facility" be deleted, and to replace the word "roads" in 4.15.1.2 with "site pavements."

Waste Management inquired about CDPH's enforcement policy regarding street-sweeping at permitted recycling facilities located within an industrial park/area that share common areas with

other businesses. Also, Waste Management sought clarification in that the sweeping in 4.15.1.2 seems to only apply to facility-related materials, where the previous section does not.

SIMS commented that the provisions in 4.15.1 are all overly burdensome and unnecessary. SIMS subsequently provided comments to the Amended Proposed Rules. In the second round of comments, SIMS recommended that the Final Rules should "allow the use of a commercial sweeper in conjunction with a water spray truck, and not require the vacuum system alternative." SIMS stated that the water truck and street sweeper combination currently used by SIMS is more effective on uneven surfaces and that just because a vacuum system costs more does not mean it is more effective.

CITY RESPONSE:

The requirement that broken pavements and potholes be immediately backfilled, patched, or repaired was taken directly from the existing recycling facility and waste facility permits' special conditions. CDPH acknowledges commenters' concerns and replaced the word "immediately" with "promptly" and added "in accordance with the permit conditions" at the end of the sentence. These changes allow CDPH flexibility in fine-tuning the appropriate turn -around time for Operators to make repairs, as well as provide for any necessary stipulations.

The main driver to the mechanical street-sweeper requirement is not whether a Facility conducts shredding, but more to a facility's size and permitted daily capacity. As such, mechanical street sweepers are required for all Large Recycling Facilities given their size, high throughput rates, and their potential impacts on surrounding streets and properties. Besides, the manual sweeping of streets is dangerous, and a mechanical street sweeper that can legally be on public roads is required.

CDPH reworded the requirements for street sweeping to clarify that all Site pavements, adjacent pavements accessible by the Owner or Operator, and all public rights-of-way within a quarter mile of the Facility, at a minimum, shall be cleaned using a street sweeper to minimize dust and remove mud and any spilled materials from the Facility’s operation. Also, in 4.14.1.2 of the Amended Proposed Rules, CDPH replaced the word “roads” with “all pavements that require sweeping under this section” and added “or emitted by Facility operations” at the end of that sentence. To address Cronimet’s comment regarding inclement weather, CDPH added a sentence stating that if the Operator cannot sweep because of an emergency or inclement weather (i.e., pavements are inaccessible due to snow cover), the Operator shall note such reasons in the sweeping log.

The requirement to sweep at least a quarter mile surrounding the Facility is to ensure that the Facility Operator cleans up the neighboring impacted areas. The quarter-mile condition was taken directly from the Bulk Material Storage Rules and is especially appropriate for auto shredding facilities that can emit fibrous ASR matter at long distances.

The sweeping frequencies specified in 4.15.1.2 were also adopted from the Bulk Material Storage Rules. These frequencies are to ensure that pavements are routinely swept to minimize the deposition of dust that can be continuously re-entrained into the air. Operators may employ strategies to simplify the sweeping schedule, so long as they are consistent with the stated sweeping frequencies. For example, if a Facility averages 200 trucks in an 8-hour day, the Operator can simply elect to sweep once in the morning and once in the afternoon or evening. If the same volume is spread over 24 hours, the Operator may choose to sweep every four hours instead. Ultimately, the Operator must ensure that the Facility and surrounding pavements are adequately swept at all times or run the risk of a violation.

Regarding Waste Management's comment about facilities that share common areas with other businesses, CDPH's position is that all such parties share a responsibility in keeping the common areas clean. If a violation occurs, CDPH will try to pursue the responsible party. If the responsible party cannot be identified, CDPH may go after all parties that may have contributed to the violation.

In response to SIMS’s subsequent comments to the Amended Proposed Rules, CDPH found data published in the Federal Highway Administration’s Environmental Review Toolkit website that vacuum-assisted sweepers (including regenerative air sweepers) generally clean better than mechanical sweepers without vacuum-assist. Further, as shown in Table 2, vacuum assisted sweepers are much more efficient at removing PM10. A model of mechanical sweeper without vacuum-assist even left the test surface almost seven percent dirtier after sweeping.

Constituent	Mechanical sweeper efficiency (%)	Vacuum-assisted sweeper efficiency (%)
Total Solids	55	93
Total Phosphorus	40	74
Total Nitrogen	42	77
COD	31	63
BOD	43	77
Lead	35	76
Zinc	47	85
Source: NVPDC (1992), as cited in Young et al. (1996).		

Table 2 - Efficiencies of mechanical (broom) and vacuum-assisted sweepers[28]

Sweeper type	Removal Efficiency (%)
Mechanical - Model 1	-6.7
Mechanical - Model 2	8.6
Regenerative Air	31.4
Vacuum-assisted wet - Model 1	40.0
Vacuum-assisted wet - Model 2	82.0
Vacuum-assisted dry	99.6

Table 3. PM-10 Particulate removal efficiencies for various sweepers[28]

Street sweepers with vacuum-assist are still required in the Final Rules. The applicant may seek a variance under Section 6.0 of the rules should it wish to use alternate types of sweepers. The

[28] Federal Highway Administration. (n.d.). Stormwater Best Management Practices in an Ultra-Urban Setting: Selection and Monitoring. Retrieved from Environmental Review Toolkit: https://www.environment.fhwa.dot.gov/env_topics/water/ultraurban_bmp_rpt/3fs16.aspx

variance request must contain hard evidence that the proposed sweeper is at least as effective as the required vacuum-assisted sweepers.

RULE 4.16 - TRAFFIC

With regard to the requirement that Facility vehicles not be park on public streets and that the Facility shall have sufficient parking available, General Iron requested a revision to allow facilities to contract with adjacent or nearby facilities that can provide parking for staff, visitors, and vehicles used for operations at the facility. In addition, Waste Management inquired if exemptions can be made for facilities located in industrial parks where others may block roads and park on the street.

CITY RESPONSE:

CDPH reviewed that language in 4.16 and determined that it does not prohibit contracting with adjacent or nearby facilities to provide parking for staff, visitors, and vehicles used for operations at the Facility. Nevertheless, CDPH replaced the word "Facility" in the second sentence with "Owner or Operator" to avoid implying that the parking and vehicle staging area must be physically at the Facility. For the same reason, CDPH revised 3.9.5.11 as follows:

The locations and layout of all on-site and nearby off-site parking and queuing areas, including the number of parking spaces and the maximum number of vehicles that can be queued at one time in the allowed queuing area.

As to Waste Management's comment, CDPH does not make exceptions for Facilities located in industrial parks where trucks from other businesses often block or cause an obstruction in a public way. However, CDPH would not consider the Facility at fault or in violation of the backup if it was caused by vehicles from other businesses or operations unrelated to the Facility.

RULE 4.18 - QUARTERLY REPORTING

SIMS commented that the provision requiring facilities to keep records at the facility for a minimum of three years unless otherwise stated in a permit, and made available to CDPH, should be sufficient without the necessity of quarterly reporting. SIMS added that the quarterly reporting requirements are overly burdensome and not related to public health.

Napuck requested the removal of the quarterly reporting requirement as the requested information falls under proprietary business information, for which liability will be attached to CDPH.

General Iron requested that the word "inadvertently" be removed from 4.18.1.1, with regard to reporting of unauthorized materials. In addition, General Iron commented that 4.18.1.6 should be revised since it's not reasonable or practical that a facility is required to quantify the amount of metal welded. Waste management added that the information requested in 4.18.1.6 should only apply to activities related to the recycling operation, and not include facility maintenance.

CITY RESPONSE:

CDPH disagrees with SIMS as the periodic reporting allows for a more proactive and data-driven approach in the protection of human health and the environment, as well as contribute to better accountability and transparency for the community. The periodic review of such data helps assure compliance and allows for more timely action in addressing current and emerging issues that may be related to the operation of the Facility beyond its designed capacity or limits.

In addition, CDPH believes the requested information is necessary to assure CDPH and the public that the Operator is not exceeding the Facility's designed or permitted capacity, to determine the types of pollutants that may be emitted from the Facility, and to ensure wastes generated from Facility operations are disposed of responsibly. In response to SIMS' comment, as mentioned previously, the applicant may request confidentiality under 11-4-310 of the Code, for any information the applicant deems a trade secret.

In addition to the information required in the Proposed Rules, the Amended Proposed Rules require auto shredding facilities to report the tonnage of vehicles shredded each month. This requirement was added, in part, to gauge the types and concentrations of pollutants that can be expected to be emitted from the shredder stack, instead of the five-year periodic stack testing requirement previously set forth in 3.9.22.4.

CDPH also moved the chronological summary of all emergencies, violations, and complaints required to be included in the Operating Plan per 3.11.2.6 into the quarterly reports section. This will allow for more frequent review of these events and for more timely engagement or intervention.

CDPH understands the challenge of quantifying the amount of metals processed by torch cutting. For this reason, the rule was revised to provide that measurements shall be in units of gas or fuel

consumed in the torch cutting process, rather than the actual amount of metal cut or torched. Cutting done for Operations and maintenance purposes must also be reported as these operations also contribute to the total metal emissions from the Facility.

F. IMPLEMENTATION SCHEDULE

Napuck commented that the 365-day implementation schedule is not reasonable, while Cronimet requested that the implementation schedule should be extended for Existing Facilities. Similarly, General Iron said that existing facilities should be allowed to submit a renewal application within two years of the date the final rules are issued.

Reliable commented that the 90-day implementation period requirement for facilities that become Consequential Facilities should only be applied to New or Expanding facilities.

Finally, Waste Management asked how the implementation schedule would apply towards facilities that are dually permitted as a waste transfer station and as a recycling facility when the waste transfer stations are permitted annually.

CITY RESPONSE:

CDPH believes the minimum one-year deadline provides ample time for Existing Facilities to produce the information required under Section 3.0, particularly given the significantly reduced paperwork burden for Existing Facilities under the Amended Proposed Rules.

CDPH notes that the requirements under Section 4.0, including any air or noise monitoring requirements, do not have to be implemented within the above deadline, but at a timeframe described in the permit application and approved by CDPH in the permit. Such implementation time shall not exceed six months from the reissuance date of the permit, unless an extension for good cause is granted by the Commissioner. Note that the Amended Proposed Rules do not require Existing Facilities to make any capital improvements, such as new paving or fencing, if they already comply with current rules and standards.

In response to Reliable's comment, CDPH clarifies that New or Expanding Facilities are immediately subject to the requirements for Consequential Facilities if they meet the criteria for such facilities. However, the 90-day grace period is necessary to allow Existing Facilities to prepare an amended application incorporating the new Consequential Facility requirements.

The implementation schedule in this section only pertains to the Recycling Facility permit and is independent of any expiration dates contained in the waste or other permits. If conflicts arise due to the dual-permitting or due to different reasons, the Commissioner will consider such factors in granting an extension of the timeframes provided. An extension may be requested as set forth in the rules.

G. VARIANCE PROCESS

The Proposed Rules include a detailed section regarding variances. 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 submit written comments on variance applications and that the Commissioner will consider these comments in the review process.

RULE 6.1 - REQUIREMENTS OF THE VARIANCE APPLICATION

Waste Management asked if the variance request gets incorporated into the permit application, or does it need to be submitted separately? If separately, when?

CITY RESPONSE:

To avoid delays in the processing of the permit, and to better focus the document on the subject of the variance, the application for a variance should be self-contained and separate from the permit application. The application for a variance may be submitted concurrently with or at a different time as the permit application.

RULE 6.1.2 - STAGING PILE HEIGHT VARIANCE

Applications for a variance from the Staging Area pile height limits require additional information. In this regard, Cronimet requested that the stockpile camera surveillance requirement in 6.1.2.3 be removed, stating that it amounts to an invasion of privacy. Waste Management sought clarification as to whether the requirements listed in 6.1.2 apply to indoor stockpiles. Also, Waste Management asked whether the emissions information set forth in 6.1.2.2 is required even if the facility has an Illinois EPA CAAPP permit.

CITY RESPONSE:

CDPH strictly regulates outdoor stockpile heights in the City. To date, the Department has never granted an exemption to any facility that handles bulk materials, waste, or recyclable materials to have stockpile heights above 30 feet. Any request to maintain even temporary piles above this height must be accompanied by all the requested information to ensure compliance with the rules and to assure the public that the stockpile height limit is being adhered to. Given the easy availability of web cameras and cloud storage, as well as the public and outdoor nature of the scene being captured, CDPH believes the surveillance requirement is not unreasonable. CDPH

maintains that this requirement serves as a baseline condition in granting a stockpile-height variance.

The requirements in 6.1.2 apply only to Staging Areas, with or without a CAAPP issued by IEPA. CDPH clarified in 4.4.3 of the Amended Proposed Rules and Final Rules that none of the height limitations apply to indoor piles.

RULE 6.1.3 - WATER SAMPLING/MONITORING VARIANCE

Waste Management asked if the MWRD documentation requested in 6.1.3.1 requires verification from MWRD that the facility discharges to a combined sewer, and therefore would not be subject to the monitoring provisions.

CITY RESPONSE:

This section is no longer needed as the water quality monitoring and sampling requirements in 4.7 were removed in the Amended Proposed Rules, as discussed in CDPH's response to 3.9.19.

RULE 6.3 - CHANGE IN FACILITY OPERATION

Reliable requested the removal of this section, which requires Facilities to notify CDPH of any change in operations that are the subject of a variance.

CITY RESPONSE:

CDPH retained this section unchanged in the Amended Proposed Rules and Final Rules as the requirement is necessary and reasonable. CDPH must be made aware of any changes, such as an expansion, that have a direct bearing on a granted variance.

RULE 6.4 - NOTICE OF VARIANCE APPLICATIONS

Reliable requested that this section, regarding public notice and comment on variance requests, be removed, as it could result in delays to needed operational changes to address different process volumes.

CITY RESPONSE:

CDPH retained this section unchanged in the Final Rules to allow transparency in the variance process and to promote public involvement.