
CITY OF CHICAGO

RULES



Rules for Large Recycling Facilities

Effective June 5, 2020



Mayor Lori Lightfoot

Commissioner Allison Arwady M.D.

RULES FOR LARGE RECYCLING FACILITIES OPERATED WITHIN THE CITY OF CHICAGO

Whereas, pursuant to Chapters 2-112 and 11-4 of the Municipal Code of Chicago (the Code), the Department of Public Health is charged with the enforcement of environmental rules, including management of Recycling Facilities within the City of Chicago and the protection of public health and safety; and

Whereas, pursuant to the authority granted by Section 2-112-160(b)(6) of the Code, the Commissioner of Health (the “Commissioner”) is authorized to issue rules necessary or proper for the implementation of environmental ordinances and to accomplish the purposes of Chapter 11-4 of the Code, and is further authorized to make reasonable administrative and procedural regulations or rules interpreting or clarifying the requirements which are specifically prescribed in Chapter 11-4 of the Code; and

Whereas, this general rule-making authority includes any rules necessary to implement the provisions of Article XX of the Code, Sections 11-4-2510 through 11-4-2680, the “Recycling Facility Ordinance;” and

Whereas, in addition, Section 11-4-2660 of the Code requires the Commissioner to promulgate rules and regulations necessary to implement the provisions of the Recycling Facility Ordinance; and

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

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

Whereas, pursuant to Section 8-32-090(d), the Commissioner is authorized to promulgate rules and regulations to enforce the noise provisions under Section 8-32-090, Part B of Chapter 8-32 of the Code; and

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

Whereas, the recycling of materials conserves natural resources, reduces energy consumption, saves landfill space, and generally decreases pollution; and

Whereas, such facilities should be located in areas where the surrounding uses are consistent with the industrial nature of Recycling Facilities and should be operated so that the environmental impacts can be minimized; and

Whereas, these facilities can be significant sources of dust, contaminated storm and process water discharges, metal-containing particulate or vapor, and possible radiation with the potential to harm human health and the environment, and cause a public nuisance or adversely impact the surrounding area or surrounding users; and

Whereas, these facilities may present a high risk of fire and explosion; and


Whereas, these facilities may be a significant source of noise; and

Whereas, the triennial operating permits and permit applications required of these Recycling Facilities are an important part of assuring environmentally sound operations; and

Whereas, the furtherance of these goals and principles can be advanced by a more detailed recitation of operational standards, permit application submittal requirements, location standards, and design standards for these Recycling Facilities; now therefore,

BY AUTHORITY VESTED IN THE COMMISSIONER OF THE DEPARTMENT OF HEALTH PURSUANT TO SECTIONS 2-112-160(b)(6), 8-32-090(d), 11-4-760(e), AND 11-4-2660 OF THE MUNICIPAL CODE OF CHICAGO, THE FOLLOWING RULES REGARDING LARGE RECYCLING FACILITIES ARE HEREBY ADOPTED.

By Order of the Commissioner:

Signed: 
Commissioner Allison Arwady, M.D.

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Rules for Large Recycling Facilities
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Table of Contents

1. Scope and Purpose	5
2. Definitions.....	6
3. Application Requirements for a Large Recycling Facility Permit.....	15
3.1. Professional Engineer.....	15
3.2. Submission Format.....	15
3.3. Description of Operations	16
3.4. Applicant Summary	16
3.5. Facility and Property Summary	16
3.6. Property Owner’s Authorization	16
3.7. Property Taxes.....	16
3.8. Nature of a Special Use	17
3.9. Design Report.....	17
3.10. Operating Plan	32
4. Recycling Facility Operating Standards	40
4.1. Permit.....	40
4.2. Hours of Operation.....	40
4.3. Material Volume and Weight Limitations	40
4.4. Material Management and Enclosure.....	40
4.5. Vehicles and Equipment.....	42
4.6. Noise Monitoring and Standards	42
4.7. Air Quality Standards and Monitoring	43
4.8. Utilities	49
4.9. Equipment Maintenance.....	49
4.10. Source and Load Screening.....	49
4.11. Material Handling, Paved Surface	49
4.12. Shredder and Shredder Enclosure.....	50
4.13. Fire Prevention and Accident Safety Plan	50
4.14. Pavement Maintenance and Cleaning	50
4.15. Traffic.....	52

4.16.	Record Keeping.....	52
4.17.	Quarterly Reporting.....	52
5.	Implementation Schedule	54
6.	Applications for a Variance.....	55
6.1.	Requirements of the Variance Application	55
6.2.	Criteria for Reviewing Variance Applications.....	56
6.3.	Change in Facility Operations.....	57
6.4.	Notice of Variance Applications	57
7.	Other Laws.....	58
8.	Severability	59

1. Scope and Purpose

The purpose of these rules is to provide explanations, guidelines, and requirements regarding the operation, location, design, and permitting of a Large Recycling Facility¹ in the City of Chicago. Specifically, these rules address Existing, New, Expanding, and Modifying Large Recycling Facilities that are required to receive operating permits from the Department of Public Health (the Department) under Section 11-4-2520 of the Code. These rules supplement the requirements contained in the Recycling Facility Rules dated March 19, 2014, as amended. In the event of conflicts between the Recycling Facility Rules and these rules, the requirements and standards in these rules shall govern. Only Large Recycling Facilities are covered under these rules.

An application to the Department for a permit to operate a Large Recycling Facility must provide sufficient information to Demonstrate that the Facility will be designed and Operated in a manner that prevents public nuisance and protects the public health, safety, and the environment. The Documentation required to provide such a Demonstration, and the standards that must be met, are set forth in Chapter 11-4 of the Code, the Chicago Environmental Protection and Control Ordinance, and these rules.

These rules provide a minimum standard for the information required in a permit application. Pursuant to the Code, the Commissioner may request additional information, if necessary, due to the complexity of the Facility or to ensure that the Facility will not create a public nuisance and that the public health, safety, and the environment are protected. The information requested in Section 3 of these rules is consistent with the information required pursuant to Section 11-4-2530 of the Code. Information that is required for a New, Existing, Expanding, or Consequential Facility only is indicated as such.

In addition to the permit application standards, these rules contain location, operational, and design standards that are applicable to all Large Recycling Facilities unless specifically exempted. For applications that fall under multiple categories, for example, a Facility that is both a New Facility and a Consequential Facility, all applicable requirements to both categories would apply. In the event of a conflict, the most stringent requirement shall apply.

¹ Capitalized terms are defined in Section 2 below.

2. Definitions

"Applicant" means the Person submitting an application for a permit to the Department to accept, handle, Process, or otherwise manage Recyclable Materials at a Large Recycling Facility.

"ASR Fiber" means the light fibrous fraction in Auto Shredder Residue that is susceptible to becoming windborne.

"Auto Shredder Residue" or "ASR" means the mixture of ferrous metal, non-ferrous metal (e.g., alloys of copper and aluminum), glass, fiber, rubber, automobile liquids, plastics and dirt generated from the shredding of vehicles.

"Closure" means those actions taken by the Owner and/or Operator to cease operations and to ensure that a Facility is closed in a manner that conforms with these rules and all other applicable laws and regulations in effect at the time of such Closure.

"Closure Plan" means a written plan describing the proposed engineering and other technical measures to be undertaken to terminate operation of a Facility and to render the Site or Facility stable and safe for the public health and environment as well as a description of the proposed utilization of the Site or Facility after Closure is complete.

"Code" or "Municipal Code" means the Municipal Code of the City of Chicago.

"Commissioner" means the Commissioner of Health of the City of Chicago.

"Confidential Business Information" or "CBI" means Trade Secrets or commercial or financial information that is submitted to the Department under a claim that it is proprietary, privileged, or confidential, the disclosure of which would cause competitive harm.

"Consequential Facility" means a Large Recycling Facility that meets at least one of these criteria:

- 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 ASRs; or
- d) Is a Class V Facility.

"Criteria Pollutants" means the airborne pollutants for which the EPA has established National Ambient Air Quality Standards for safe levels of exposure. The current Criteria Pollutants include carbon monoxide, lead, nitrogen dioxide, ground-level ozone, particulate matter, and sulfur dioxide.

"Demonstrate" means to provide sufficient Documentation to validate that the representations made in the application are accurate. A demonstration may include reports, analyses, calculations, modeling, studies, or other information necessary to validate the accuracy and truthfulness of representations made in the application.

"Department" or "CDPH" means the Department of Public Health of the City of Chicago.

"Documentation" means items, in any tangible form, whether directly legible or legible with the aid of any machine or device, that are used to support facts or hypotheses, including but not limited to affidavits, certificates, deeds, leases, contracts or other binding agreements, licenses, permits, photographs, audio or video recordings, maps, geographic surveys, chemical and mathematical formulas or equations, mathematical and statistical calculations and assumptions, research papers, technical reports, technical designs and design drawings, stocks, bonds, and financial records.

"Employee Facilities" means washrooms, toilets, potable water, changing rooms, lunchrooms, showers, and other amenities for employee sanitation and well-being.

"EPA" means the United States Environmental Protection Agency.

"Existing Facility" means a Large Recycling Facility that holds a current and valid operating permit issued by the Department.

"Expanding Facility" means an Existing Facility that has applied for a permit to allow an Expansion.

"Expansion" means 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.

"Facility" means the land and all structures, equipment, and ancillary fixtures on said land used to Process, Store, or Recycle materials, including structures, buildings, scales, roadways, parking areas, queuing areas, fences, Tipping Floors, Processing equipment, Processing Areas, Staging Areas, and monitoring stations.

"Fugitive Dust" means any solid particulate matter that becomes airborne by natural or human-made activities but does not include engine combustion exhaust and particulate matter emitted from a properly permitted exhaust stack equipped with a pollution control device.

"Fugitive Source" means the origin of a non-ducted airborne emission, such as dust from the handling or Storage/Staging of aggregates, wind erosion of Storage/Staging stockpiles, or material re-suspended from roads by traffic.

"Hazardous Air Pollutants" or "HAP" means any hazardous air pollutant listed under Section 112 of the Clean Air Act, as amended.

"Hazardous Waste" means any waste, or combination of wastes, which because of quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or serious, irreversible, or incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed, or which has been identified by characteristics or listing as hazardous pursuant to federal and state law including, but not limited to Section 300 I of the Resource Conservation and Recovery Act of 1976, PL 94-580 as amended, the Illinois Environmental Protection Act, or pursuant to regulations promulgated by the Illinois Pollution Control Board.

"IEPA" means the Illinois Environmental Protection Agency.

"Landscape Waste" means grass or shrubbery cuttings, leaves, tree limbs and other materials accumulated as a result of the care of lawns, shrubbery, vines, and trees, and includes any discarded fruits, vegetables, and other vegetative material or crop residue generated in the care of a garden. The term "Landscape Waste" does not include soil other than incidental soil (e.g., soil attached to sod or attached to other materials accumulated as a result of the care of lawns, shrubbery, vines, trees or a garden).

"Large Recycling Facility" means a Facility that is authorized to accept 1,000 tons or more per day of Recyclable Materials, operates a metal Shredder that Processes vehicles that has a rated capacity of greater than 25 tons per hour, or utilizes Mechanical Sorting Equipment in the Processing of ASR. A Large Recycling Facility does not include Recycling activities conducted at a waste transfer station facility operating under a permit issued pursuant to 11-4-250 of the Municipal Code.

"Liquid Waste" means any waste which maintains the physical state of continuous volume relatively independent of pressure and which takes the shape of its container at ambient temperature; or is determined to contain "free liquids" as defined by Method 9095 (Paint Filter

Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846).

"Mechanical Sorting Equipment" means powered sorting equipment such as, but not limited to, magnetic systems, eddy-current systems, and mechanical screens and trommels.

"Modification" means 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, an increase or change in the handling or Processing capacity of the Facility of ten percent or less (calculated using the Facility's permitted capacity on the effective date of these rules or the permitted capacity issued under a New or Expanded permit issued after the effective date of these rules), changes in the nature of the Facility's operations, changes in Facility configuration, changes in the nature of the Process, the addition or removal of stationary equipment or machinery, all capital improvements, and changes necessary to comply with the Consequential Facility requirements under these rules.

"Modifying Facility" means an Existing Facility that is seeking a Modification.

"MS4" or "Municipal Separate Storm Sewer System" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

"Municipal Waste" means garbage, general household and commercial waste, Landscape Waste, and construction and demolition debris. Municipal Waste includes industrial waste but does not include non-hazardous Special Waste, Hazardous Waste, or Potentially Infectious Medical Waste.

"MWRD" means the Metropolitan Water Reclamation District of Greater Chicago.

"National Pollutant Discharge Elimination System" or "NPDES" means the program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements under the Clean Water Act (33 USC 1251 et seq.),

Section 12(1) of the Environmental Protection Act (415 ILCS 5/12(1)) and 35 Ill. Admin. Code 309, Subpart A, and 35 Ill. Admin. Code 310.

"Near Reference PM 10 Monitor" means 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."

"New Facility" means a Large Recycling Facility that does not hold a current and valid recycling facility permit as of the effective date of these Rules.

"NPDES permit" means a permit issued under the National Pollution Discharge Elimination System program.

"One hundred (100) year flood plain" means any land area which is subject to a one percent or greater chance of flooding in a given year from any source.

"One hundred (100) year, 24-hour precipitation event" means a precipitation event of 24-hour duration with a one percent or greater chance of occurring in a given year using Illinois State Water Survey's Bulletin 70 – Frequency Distributions of Heavy Rainstorms in Illinois.

"Operator" means a Person who has charge, care, or control of the Site; who is responsible for the operation and maintenance of the Site; or who is entitled to control or direct the management of the Site.

"Operating Program" shall have the same meaning as ascribed in 35 IAC Part 212.309.

"Operating Record" means a collection of documents maintained at the Facility that includes the recycling permit issued by CDPH; the most recent copy of the application submitted pursuant to Section 3 of these rules; a copy of the Facility's emergency response plans and contingency plans; street sweeping and cleaning logs, Vector control treatments; records of emergencies and acceptance of unauthorized waste; and other information specified to be kept in the Operating Record under these rules and the recycling permit.

"Ordinance" means the City of Chicago Environmental Protection and Control Ordinance, Chapter 11-4 of the Municipal Code of Chicago.

"Owner" means a Person who has an interest, directly or indirectly, in land, including a leasehold interest, on which a Person operates and maintains a Facility. The Owner is the Operator if there is no other Person who is operating and maintaining a Facility.

"Person" means any individual natural Person, trustee, court-appointed representative, syndicate, association, partnership, co-partnership or joint-stock company, limited liability company, trust, estate, firm, club, company, corporation, business trust, institution, agency, government corporation, municipal corporation, city, county, municipality, district or other political subdivision, department, bureau, agency or instrumentality of a federal state or local government, contractor, supplier, vendor, installer, Operator, user, or owner, or any officers, agents, employees, factors, or any kind of representative thereof, in any capacity, acting either for himself, or for any other Person, under either personal appointment or pursuant to law, or any other entity recognized by law as the subject of rights and duties. The masculine, feminine, singular, or plural is included in any circumstance.

"Point Source" means an exhaust stack or other discrete, typically ducted source of airborne emissions.

"Pollution Control Waste" means any liquid, solid, semisolid or gaseous waste generated as a direct or indirect result of the removal of contaminants from the air, water or land and which poses a threat or potential threat to human health or to the environment or with inherent properties which make the disposal of such waste in a landfill difficult to manage by normal means. "Pollution Control Waste" includes but is not limited to water and wastewater treatment plant sludges, baghouse dust, landfill waste, scrubber sludges, and chemical spill cleanings.

"Post-Processed" means after all Processing has been completed.

"Potentially Infectious Medical Waste" means wastes as defined in 415 ILCS 5/3.360.

"Process" or "Processing" means manual, mechanical, or automated separation of Recyclable Material from other materials; separation of Recyclable Materials from each other; cleaning, bundling, compacting, cutting, packing of Recyclable Material or such other Processing of Recyclable Materials as approved by the Commissioner.

"Processing Area" means any area contained within a Facility where handling or Processing of any Recyclable Material takes place.

"Professional Engineer" means a Person who holds a current and valid certificate of registration and a seal pursuant to the "Illinois Professional Engineering Practice Act" (225 ILCS 325/1 et seq.).

"Professional Surveyor" means a Person who holds a current and valid certificate of registration and a seal pursuant to the "Illinois Professional Land Surveyors Act" (225 ILCS 330/1 et seq.).

"Property" means the land described by a legal description that includes a Facility, or a proposed Facility, and may include a Site or other areas within the described legal description operated or controlled by other independent businesses or entities.

"Recycle" or "Recycling" has the same meaning ascribed to these terms in section 11-4-120.

"Recycling Facility" has the same meaning ascribed to it in section 11-4-120.

"Recyclable Material(s)" has the same meaning ascribed in section 11-4-2510 and shall be categorized as Type A, Type B, Type C or Type D as these terms are defined in said section.

"Run-off" means water resulting from precipitation that flows overland before it enters a defined stormwater receptor (e.g., ditch, pond, sewer, stream channel), any portion of such overland flow that infiltrates into the ground before it reaches the stormwater receptor, and any portion that falls directly into a stormwater receptor.

"Run-on" means water resulting from precipitation that drains overland onto any part of the Facility.

"Secondary Containment" means a device or structure designed to contain a release of liquid from a tank, piping system, drum storage area, tanker truck loading/unloading area, liquid transfer point, pit, lagoon, impoundment, or similar liquid handling or storage system or device, thereby controlling the release of the liquid and preventing its escape into the environment.

"Sensitive Area" means any property with a residential use, a park, a hospital, a clinic, a church, a day-care center, or a school.

"Shredder" means a machine or device used to shred, tear, or cut materials into smaller pieces.

"Site" means all areas of Property that are available for use or are used by the Operator or the Owner that may or may not be related to the Recycling activities.

"Solid Waste" means abandoned or discarded materials that are not defined as a Liquid, Special, or Hazardous Waste.

"Special Waste" means any industrial process waste, Pollution Control Waste or Hazardous Waste, and other wastes as defined by the Illinois Environmental Protection Act as amended and in regulations promulgated by the Illinois Pollution Control Board. "Special Waste" includes Potentially Infectious Medical Waste.

"Staging" means 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.

"Staging Area" means a dedicated area of the Facility used for Staging.

"Storage" means the containment or stockpiling of Recyclable Material, Post-Processed material, or residual waste. Storage does not include Staging, as defined in these rules.

"Store" means to contain or stockpile Recyclable Material, finished product, or residual waste that does not constitute Staging.

"SWPPP" or "Storm Water Pollution Prevention Plan" means a document that outlines how a Facility will minimize stormwater pollution by 1) employing best management practices (BMPs) and good housekeeping procedures that minimize pollutants such as sediments, oil, chemicals, and trash; 2) providing for inspections and BMP maintenance; and 3) performing continuous monitoring and periodic laboratory sampling and analysis.

"Tipping Floor" means the area within a Facility where receiving activities, including unloading, loading, and limited sorting occur.

"Trade secret" means any scientific or technical information, design, process, procedure, formula or improvement, or business plan which is secret in that it has not been published or disseminated or otherwise become a matter of general public knowledge, and which has competitive value.

"Unauthorized Materials" means materials not specifically authorized to be accepted and handled at the Facility under its CDPH Recycling Facility permit.

"Universal Waste" means Hazardous Waste such as batteries, pesticides, mercury-containing equipment, lamps, and other materials subject to the requirements under 35 Ill. Adm. Code 733.

"Utilities" means any service provided to the Site that has a dedicated system of service. Utilities may include but are not limited to electricity, potable water, process water, telephone, and natural gas.

"Vector" means any living agent, other than human, capable of transmitting, directly or indirectly, an infectious disease.

"Waste" means any discarded or abandoned material in solid, semisolid, liquid, or contained gaseous form, including but not limited to, industrial process waste, Hazardous Waste, Liquid Waste, Municipal Waste, Special Waste, garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control Facility, but excluding: (1) sewage collected and treated in a municipal or regional sewage system; or (2) Recyclable Materials managed in compliance with the provisions of the City of Chicago Municipal Code and applicable regulations.

"Waters" means all accumulations of water, surface, and underground, natural, and artificial, public, and private, or parts thereof, which are wholly or partially within, flow-through, or border upon the State of Illinois. Examples of Waters include, but are not limited to, Lake Michigan, the Chicago River, Calumet River, and Lake Calumet.

"Wetland" means those areas defined in 40 CFR 232.2.

3. Application Requirements for a Large Recycling Facility Permit

A Large Recycling Facility must apply for and receive a permit in accordance with these rules as follows:

- A New Facility must receive a permit before beginning operations;
- An Expanding Facility must receive a permit for the Expansion before beginning construction or otherwise implementing the Expansion;
- A Modifying Facility must receive a permit amendment before beginning any Modification; and
- An Existing Facility must renew its permit every three years before the expiration of its current permit.

Permit applications shall contain Documentation sufficient to Demonstrate that the Facility is designed and will be operated in a manner that protects public health, safety, and the environment. Documentation submitted to other regulatory agencies, such as the EPA, IEPA, the MWRD, and other City departments, relating to the construction or operation of a waste facility, a Recycling Facility, a discharge source, or an emission source must be included in the application as an Attachment and referenced in the application. Pursuant to 11-4-310 of the Code, the Applicant may request the Department to treat with confidentiality any information the Applicant deems a Trade Secret or containing Confidential Business Information.

The application requirements and contents for a Large Recycling Facility are described below and summarized in Appendix A.

3.1. Professional Engineer

The permit application shall be prepared under the direction of and shall contain the name, address, registration number, seal, and signature of, a Professional Engineer (“PE”). A PE stamp is not required on subsequent renewal applications if no Modification or Expansion is being proposed by the Applicant.

3.2. Submission Format

The Applicant must submit the entire application electronically in a portable document format (.pdf) file format or in another format approved by CDPH.

3.3. Description of Operations

Provide a brief description of the Operator's business and the operations that currently or will take place at the Facility.

3.4. Applicant Summary

The application shall contain an Applicant summary that clearly identifies the Person applying for the permit. In the case of a sole-proprietorship, the application shall include the name, address, and phone number of the owner of the proprietorship or, in the case of a partnership or corporation, the application shall include the name, address, contact name, and phone number of the partnership or corporation.

3.5. Facility and Property Summary

The application shall include a Facility and Property summary containing the following:

- a. The Facility's street address and telephone number;
- b. The Facility's and the Property's Property Index Numbers (PINs);
- c. A description of other operations by the Operator occurring at the Property outside the scope of the recycling permit, if any; and
- d. A list of businesses, other than the Applicant, that are operating on the Property, if any.

3.6. Property Owner's Authorization

The application shall include a notarized letter, signed by the Owner, authorizing the Operator to use the Property as a Large Recycling Facility. This letter is required even if the Applicant is the Owner.

3.7. Property Taxes

The application shall include Documentation evidencing the payment of real estate property taxes by providing copies of the most recent tax bill and check; or by providing a copy of the most recent tax bill that has been stamped paid by the Cook County Treasurer's office, or payment receipts issued by said office.

3.8. Nature of a Special Use

If applicable, the Design Report shall contain a copy of any Special Use (pursuant to Section 17-13-0900 of the Code) or Variation (pursuant to Section 17-13-1100 of the Code) approved by the Zoning Board of Appeals (ZBA), and any plans and drawings referenced therein.

3.9. Design Report

The application shall contain a design report for the Facility (“Design Report”) that shall include the following components, in order:

3.9.1. Site Survey

For New or Expanding Facilities, the Design Report shall contain a site survey prepared by a Professional Surveyor that includes:

- 3.9.1.1. The site survey shall be at a legible scale, no smaller than one inch equals 100 feet, and shall include the following components, at a minimum;
- 3.9.1.2. The Facility boundaries and the location of all buildings, access roads, parking areas, and any ancillary structures or features within the Facility;
- 3.9.1.3. Topographic contours, at a minimum two-foot contour interval, of existing conditions and any proposed regrading of the Site; and
- 3.9.1.4. Legal descriptions that describe the Facility boundaries.

3.9.2. USGS Site Location Map

For New or Expanding Facilities, the Design Report shall contain a USGS 7.5 Minute Quadrangle Map that includes:

- 3.9.2.1. A clearly marked one-mile radius around the entire Facility that identifies features such as a stream, river, pond, lake, Wetland, road, highway, school, park, and other features depicted in a USGS Quadrangle Map.

3.9.3. Aerial Photograph Drawing(s)

For New or Expanding Facilities, the Design Report shall contain aerial photography taken within one year before the date of the permit application that shows the following:

- 3.9.3.1. The delineated boundaries of the Facility;
- 3.9.3.2. Clearly marked radiuses of 150 feet and 660 feet around the entire Facility boundary to identify features such as a residential property, road, highway, school, park, non-manufacturing land uses and any other Sensitive Area within these radiuses;
- 3.9.3.3. Zoning districts clearly delineated. The district boundaries and their respective designation shall be clearly marked; and
- 3.9.3.4. Any additional characteristic or feature that has a location standard established in 3.9.4, or any other applicable standard. The drawing(s) shall identify the characteristic or feature and indicate the setback distance from the Facility boundary.

3.9.4. Location Standards

At a minimum, the Design Report for New or Expanding Facilities shall Demonstrate compliance with the following standards:

- 3.9.4.1. Residential Setbacks. A Facility must meet the setback requirements set forth in Section 17-9-0117 of the Municipal Code.
- 3.9.4.2. Lake Michigan. A Facility shall not be located within the Lake Michigan and Chicago Lakefront Protection District as specified in The Lake Michigan and Chicago Lakefront Protection Ordinance (Chapter 16-4 of the Municipal Code).
- 3.9.4.3. One hundred (100) year flood plain. A Facility and all ancillary structures, including Storage/Staging areas, shall not be located within the 100-year flood plain unless the Facility can Demonstrate compliance with the Chicago Flood Control Ordinance (Chapter 16-6 of the Municipal Code) and all other applicable state and federal requirements.
- 3.9.4.4. Wetlands. A Facility shall not have a negative impact on Wetlands located on or near the Facility, in accordance with Section 404 of the Clean Water Act (33 USC 1344)

unless the application is made and a permit received from the US Army Corps of Engineers, and the Commissioner approves such impact as part of the Facility's permit.

3.9.4.5. Endangered Species. A Facility shall not pose a threat to any endangered species of plant, fish, or wildlife as defined by the Endangered Species Act (16 USC 1531, *et seq.*) or the Illinois Endangered Species Protection Act (520 ILCS 10/1, *et seq.*).

3.9.4.6. Historical and Natural Areas. A Facility shall not pose a threat to any historic site as listed pursuant to the National Historic Preservation Act (54 USC 300101, *et seq.*) or the Illinois Historic Preservation Act (20 ILCS 3410/1, *et seq.*) and designated as an official Chicago Landmark Building or within an official Chicago Landmark district, or any natural landmark, as designated by the National Park Service, the Illinois State Historic Preservation Office, or as a Dedicated Illinois Nature Preserve pursuant to the Illinois Natural Areas Preservation Act (525 ILCS 30/1, *et seq.*).

3.9.5. General Layout of the Facility

The Design Report shall contain sufficient scale drawings to describe the general layout of the Facility. These drawings shall include and indicate, but not be limited to:

3.9.5.1. The main areas of the Facility, at a legible scale, not less than one inch equals 100 feet. The scale shall be represented on each drawing in graphical format;

3.9.5.2. The internal and external layout including dimensions of all buildings and structures;

3.9.5.3. The layout and location including dimensions for all fixed equipment including, but not limited to, all Processing equipment and conveyors;

3.9.5.4. The footprints of all Processing, handling, Storage (authorized and Unauthorized Materials), and Staging areas;

- 3.9.5.5. Traffic flow for vehicles used to transport Recyclable Materials through the facility. For New or Expanding Facilities, this drawing shall also depict the minimum turning radiuses required by vehicles and equipment transporting or handling materials at the Site;
- 3.9.5.6. If present, all pertinent features of the stormwater management system (e.g., onsite stormwater flow, inlets, stormwater pipelines, catch basins, and detention/retention ponds). For New or Expanding Facilities, the extent of the high-water level during a one hundred (100) year, 24-hour precipitation event shall also be depicted.
- 3.9.5.7. If present, all pertinent features of the wastewater management system (e.g., floor drains, sumps, oil filters/separators, sewer lines, and treatment facilities);
- 3.9.5.8. The locations of the primary water sources and water distribution system components for Employee Facilities, fire suppression, Facility cleaning, and dust control;
- 3.9.5.9. The locations of all fire suppression equipment (e.g., sprinklers, hoses, and extinguishers), areas where torch-cutting, plasma-cutting or welding occurs, and all flammable material storage areas;
- 3.9.5.10. The locations of all Facility or Site control features and all screening and access-control devices such as fences, gates, and signage;
- 3.9.5.11. The locations and layout of all onsite and nearby offsite 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;
- 3.9.5.12. The locations and layout of all employee facilities; and
- 3.9.5.13. The location of all first-aid equipment and other emergency supplies and equipment.

3.9.6. Pavements

All roads and parking areas within the Facility shall be paved with concrete or hot-mix-asphalt, or other materials such as gravel and asphalt grindings when deemed appropriate by the Commissioner. The Design Report shall Demonstrate that all internal roads and parking areas are designed, constructed, and maintained to accommodate the vehicle flow rates and type of traffic loading expected at the Facility, including, but not limited to:

- 3.9.6.1. A plan scaled drawing depicting all pavements at the Facility by pavement type. This information may be shown in the general layout plan required in 3.9.5;
- 3.9.6.2. A pavement maintenance plan describing how and at what frequency the Operator will inspect, repair, and maintain all pavements at the Facility to minimize ponding, dust, and mud;
- 3.9.6.3. For new pavements, a narrative description, or a cross-section drawing(s) describing or showing the thickness and material composition of the pavement system layers from subgrade to the surface slab or wearing course; and
- 3.9.6.4. For a New or Expanding Facility, all internal roadways, and surfaces subject to truck and heavy-equipment traffic within 100 feet of the Property line shall be paved with concrete or hot-mix-asphalt paving, or an equivalent pavement system, as approved by the Commissioner, in order to minimize dust emissions and provide for ease of cleaning.

3.9.7. Utilities

For New or Expanding Facilities, the Design Report shall Demonstrate that Utilities are of adequate capacity and are readily available for the operations of the Facility. The information in the Design Report regarding Utilities shall include:

- 3.9.7.1. A plan scaled drawing showing the location of all utilities within and adjacent to the Facility. This

information may be shown in the general layout plan required in 3.9.5;

3.9.7.2. Calculations demonstrating the peak demand for Utilities required for the proper operation of the Facility. This shall include, but is not limited to, gas and electrical demands; and

3.9.7.3. Documentation to Demonstrate that sufficient capacity for Utilities is available to the Facility to satisfy the demands calculated in 3.9.7.2. Such Documentation may be in the form of an approval letter or permit from the utility provider.

3.9.8. Water Sources

For New or Expanding Facilities, the Design Report shall Demonstrate that sufficient quantities of water are available to support Facility operations, and shall include:

3.9.8.1. An estimate of water usage at the Facility for fire suppression, dust control, cooling, cleaning, irrigation, and Employee Facilities.

3.9.8.2. The total amount of water, foams and other fire-extinguishing materials and oils or other chemical dust suppressants available from each source;

3.9.8.3. The rate at which water, foams, and other fire extinguishing materials and oils or other chemical dust suppressants can be obtained from each source; and

3.9.8.4. A list of the equipment and specifications that will be used to pump, distribute, and convey water, foams, and other fire-extinguishing materials and oils or other chemical dust suppressants.

3.9.9. Site Security

The Design Report shall Demonstrate that the Facility is secure from unauthorized access at all times, and shall include, at a minimum:

3.9.9.1. A description and specifications of the fences, gates, signs, and other barriers that prevent unauthorized access to the Facility; and

- 3.9.9.2. A description of the security measures taken during both operating hours and closed hours.

3.9.10. Structures and Fixed Equipment

The Design Report shall Demonstrate that all structures and fixed equipment are designed so that the Facility can be operated as proposed and in a safe manner, and shall include, but not be limited to:

- 3.9.10.1. Calculations of the handling capacity of all structures and fixed equipment;
- 3.9.10.2. An operating and maintenance plan for all structures and fixed equipment; and
- 3.9.10.3. Detailed design drawings and manufacturers' specification sheets for all structures and fixed equipment. Existing Facilities may submit the make and model of fixed equipment if the manufacturer's specification sheets are unavailable.

New or Expanding Facilities shall submit the following additional information:

- 3.9.10.4. Documentation that the buildings used to store recyclable materials meet all building and fire prevention requirements set forth in the Municipal Code;

3.9.11. Tipping Floor and Storage Capacity

The Design Report shall Demonstrate that sufficient floor and Staging capacity exists to accommodate the inspection and unloading of peak volumes of inbound material and the Staging and Storage of materials, and shall include, but not be limited to:

- 3.9.11.1. Detailed calculations of the volume, in cubic yards, available for the unloading of inbound materials on the Tipping Floor(s);
- 3.9.11.2. A drawing showing the size and location of the area dedicated to the screening of inbound loads, including the unloading and inspection of atypical loads and the inspection of random loads. This information may be shown in the general layout plan required in 3.9.5;

- 3.9.11.3. Detailed calculations of the volume in cubic yards available for the Storage and Staging of raw materials, Processed materials, products, Unauthorized Materials and residual Waste on the Tipping Floor(s), loadout area, and in all Staging and Storage areas; and
- 3.9.11.4. Drawings showing the location and lateral and vertical extents of all raw material, Processed material, Post Processed material, finished product, and residual Waste piles at the Facility. For Class III Facilities, include locations of all windrows and composting areas. This information may be shown on the general layout plan required in subsection 3.9.5.

3.9.12. Water Drainage

For New or Expanding Facilities, the Design Report shall Demonstrate that adequate systems exist to handle stormwater and wastewater flows from the Facility, and shall include:

- 3.9.12.1. A stormwater management plan approved by the Chicago Building Department pursuant to the stormwater ordinance under Chapter 11-18 of the Municipal Code, or written correspondence from the Chicago Building Department stating that the Facility is exempted from the stormwater ordinance requirement. The high water elevation from a One Hundred (100) Year, 24-hour Precipitation Event must be depicted on the general layout requirements in subsection 3.9.5 or in a separate drawing, even if the Facility is exempted from Chapter 11-18;
- 3.9.12.2. Copies of the Facility's NPDES and MWRD discharge permits, or anticipated submittal date, along with a copy of the permit application(s), and any other permit issued by the IEPA Bureau of Water;
- 3.9.12.3. Documentation that any receiving sewer system has sufficient capacity to handle the quantity of stormwater and wastewater generated by the Facility. Such Documentation may be in the form of an approval letter(s) or permit(s) from the Chicago Building

Department and/or the Chicago Department of Water Management; and

- 3.9.12.4. Drawings, specifications, and design calculations to Demonstrate effective management, treatment, or disposal of contaminated stormwater and process waters generated by the Facility.

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 on existing conditions.

3.9.13. Traffic

The Design Report shall Demonstrate that the Facility is designed and located to minimize the impact on the existing traffic flow in the surrounding area and that the points of ingress and egress are designed according to Illinois Department of Transportation (IDOT) standards. This Demonstration shall include, but not be limited to:

- 3.9.13.1. Calculations of the average and the maximum number of vehicles generated by the Facility as well as an hourly breakdown of Facility vehicle traffic. For Existing Facilities, this information may be determined using truck-scale records going back at least one year of the application date;
- 3.9.13.2. A stacking plan showing the number of vehicles and the onsite and offsite locations of these vehicles during the maximum peak Facility traffic hours; and
- 3.9.13.3. An idling reduction plan that Demonstrates compliance with Section 9-80-095 of the Code and that minimizes unnecessary idling of vehicles and equipment in order to avoid contributions to poor air quality and noise.

For New or Expanding Facilities:

- 3.9.13.4. A Demonstration 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;

- 3.9.13.5. Traffic counts taken in hourly intervals at all ingress/egress points to identify the peak hours of traffic occurring in the morning and afternoon. The traffic counts shall include a classification of vehicles;
- 3.9.13.6. A description of the measures taken to reduce the impact of the Facility generated traffic on the existing traffic flows; and
- 3.9.13.7. Diagrams of the points of ingress and egress depicting the layout of ingress/egress points, sight distances, and improvements necessary to minimize accidents at the ingress/egress points.

3.9.14. Expected Waste Generation

For New or Expanding Facilities, the Design Report shall include a description and estimate of the amount of Waste in tons anticipated to be generated at the Facility, and shall include:

- 3.9.14.1. An estimate of Liquid Waste in gallons generated at the Facility each month, broken down by activity. Such activities may include, but not necessarily be limited to, the draining of fluids from vehicles, the collection of leachates from stockpiles, the cooling of equipment, and the cleaning, draining, or washout of sumps and pollution control devices. In addition, the estimate shall include a description of both onsite and offsite methods employed to collect and manage the Liquid Waste from each activity; and
- 3.9.14.2. An estimate of Waste in tons to be generated at the Facility each month, broken down by activity, and categorized by Waste type (Municipal Waste, Special Waste, Hazardous Waste, Universal Waste, Liquid Waste, etc.). Waste may include residue generated from the Processing of Recyclable Materials, cleaning and housekeeping activities, and Waste from filter media and pollution control devices.

3.9.15. Parking

For New or Expanding Facilities, the Design Report shall Demonstrate that the Facility meets the minimum automobile parking ratio and the minimum bike parking requirements mandated by the Chicago Zoning Ordinance, and shall include:

- 3.9.15.1. The number of employees at the Facility and the corresponding number of parking spaces;
- 3.9.15.2. Backup calculations showing the parking spaces in 3.9.15.1 meet the parking requirements mandated by the Chicago Zoning Ordinance; and
- 3.9.15.3. A layout of all parking areas, including bicycle parking, short-term vehicle parking, and vehicle queuing areas. This layout may be shown on the general layout plan required in subsection 3.9.5.

3.9.16. Employee Facilities

For New or Expanding Facilities, the Design Report shall contain a description of the Employee Facilities available at the Facility.

3.9.17. Perimeter Barrier

The Design Report shall Demonstrate that the barrier around the Facility will obscure Facility operations from the public way and adjacent properties, and shall include:

- 3.9.17.1. A description of the Facility's perimeter barrier, including, but not limited to:
 - a. Height – the barrier must be at least 8 feet high;
 - b. Material Composition – The barrier must be solid so as to completely obscure all materials stored or kept within the Facility boundaries.
- 3.9.17.2. 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 another material, including composites of the above, approved by the Commissioner in the permit conditions.

- 3.9.17.3. Applicants seeking approval to use other types of materials must demonstrate that the proposed material meets zoning requirements and are comparable in terms of durability, maintenance requirements, visual-screening, and noise-mitigating performance relative to above-listed materials.
- 3.9.17.4. For the purpose of this requirement, chain-link or wrought-iron fencing covered in slats or meshing is not considered a durable material;
- 3.9.17.5. Site Access Locations – When possible, all gates and access openings shall be located away from adjacent or nearby non-manufacturing land uses; and
- 3.9.17.6. Elevation Drawing - For new barriers, the application shall include an elevation drawing(s) showing the vertical dimensions and construction of the barrier, gates, and other important features.

Barriers are not required on sides of the Facility along a waterway if the barrier interferes with loading operations or conflicts with zoning requirements. In addition, adjacent embankments or rail lines may be used towards meeting the above perimeter barrier requirement if such features otherwise meet the security and screening intent of this section, subject to approval by the Commissioner.

3.9.18. Stormwater Pollution Prevention

For Sites located along Waters or which discharge to an MS4, the Design Report shall include a Stormwater Pollution Prevention Plan (SWPPP) that includes, but may not necessarily be limited to:

- 3.9.18.1. The identification of offsite receiving Waters and sewerage systems. If the discharge is to a sewer, identify the sewer type (combined, MS4, sanitary);
- 3.9.18.2. An inventory of potential pollutants at the Facility and their sources. The types of pollutants to be considered shall, at a minimum, include sediments, oil and grease, toxic chemicals, pH, heavy metals, nutrients, and trash/debris; and

- 3.9.18.3. A description of best management practices (BMPs) to address the pollutants identified. 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 local, state, and federal rules.
- 3.9.18.4. The Applicant may submit a copy of the SWPPP prepared in accordance with the Facility's NPDES permit to satisfy the requirements of this section. The CDPH may require additional information or measures to supplement the SWPPP based on site-specific conditions.

3.9.19. Noise Impact Assessment

For applications requesting a waiver to operate outside of the operating hours in Section 4.2, the Design Report shall include a noise impact assessment that includes, but is not limited to:

- 3.9.19.1. A demonstration that sound levels from the Facility will not exceed applicable standards set forth in Section 8-32-090 of the Chicago Noise Ordinance;
- 3.9.19.2. This Demonstration shall include a determination of the total sound level in dB(a). This total sound level may be computed based on a detailed inventory of sound levels generated by equipment and site activities, measured directly using a sound pressure level meter, or under a work plan prepared and performed by a noise-abatement engineer or qualified sound consultant;
- 3.9.19.3. If any sound levels exceed applicable standards contained in 8-32-090 of the Code, the noise impact assessment shall include a noise abatement plan to bring sound levels down to within regulatory requirements; and
- 3.9.19.4. For Facilities that conduct the shredding of metals, the noise impact assessment must include a noise monitoring plan to continuously record sound pressure levels at the Facility and collect the data required in 4.6.1 of these rules. Devices used to measure noise

levels must use omnidirectional microphones or microphones otherwise approved in the permit or waiver.

3.9.19.5. Existing Facilities that have not been found to have violated any applicable noise standard or Ordinance in the past three years may, at the Commissioner's discretion, be exempted from any of the requirements under this subsection.

3.9.20. Storage Tanks

The Design Report shall Demonstrate that all storage tanks used to store oil, chemicals, and flammable liquids have Secondary Containment and are approved by the State Fire Marshall's Office and the CDPH's Storage Tank Unit. A Facility subject to Spill Prevention Control and Counter Measures (SPCC) regulations under 40 CFR 112 shall provide a copy of the Facility's SPCC Plan.

3.9.21. Air Quality Impact Assessment

The Design Report for a Consequential Facility shall contain an air quality impact assessment that includes, but is not necessarily limited to:

3.9.21.1. An emissions and air dispersion modeling study ("Study") of the Facility and its operations, using USEPA's AERMOD software or other software approved by the Commissioner. The Study shall evaluate airborne emissions from each Point Source and Fugitive Source. The Study shall evaluate PM10 emissions that may be generated at the Facility from sources such as, but not limited to, Processing equipment, diesel engines, and emissions from roadways, stockpiles, material handling, sorting, welding, torching, grinding and cutting activities. Diesel emissions from on-road mobile sources are not required to be included in the modeling study.

In addition to PM10, *Facilities that receive scrap metal or metallic Recyclables shall evaluate the following HAPs in the modeling study:* antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium compounds.

3.9.21.2. A dust monitoring plan that describes the placement, operation, and maintenance of the PM10 monitors and a weather station as required under Section 4.7.7 of these rules, and a schedule and plan for quarterly testing to ensure compliance with the prohibition of dust set forth in 4.7.2.

- a) The dust monitoring plan shall provide for at least one monitor at the following locations along or near the Facility's fence line: At each 45-degree direction relative to the center of the Facility where there is a Sensitive Area within 660 feet of the Facility boundary; and
- b) At each location of the Facility or Property determined in the air-dispersion modeling study to potentially exceed EPA's 24-hour standard for PM10 or relevant acute or chronic health screening limits or standards for the modeled HAPs.

However, in circumstances where the above requirements would result in monitors being placed on the same side of the facility within 100 feet of one another, a single monitor may be used. In such cases, the single monitor must be placed in a central location as approved by CDPH in the permit.

When appropriate, the PM10 monitors in 3.9.21.2 may be located along the Property boundary as directed in the permit conditions.

In the event no location meets the criteria in 3.9.21.2(a) and 3.9.21.2(b) above, at least one monitor shall be placed downwind of the prevailing wind direction. This air monitor may be relocated as necessary to account for seasonal variation in wind direction. The situations under which the relocations should occur shall be specified in the Dust Monitoring Plan.

- 3.9.21.3. A calibration plan that ensures all PM10 monitors and weather stations will be calibrated prior to being placed in service, and annually or at a frequency recommended by the manufacturer thereafter. For Facilities using light-scattering nephelometers to monitor PM10, the calibration shall include periodic determination of a site-specific correlation factor that calibrates the instruments' readings against concentrations determined by gravimetric sampling using EPA IO 3.1, NIOSH 0500, or other methods approved by CDPH. The site-specific correlation factor shall be calculated using mathematical formulas provided by the equipment manufacturer.
- 3.9.21.4. For Facilities that handle scrap metal or metallic recyclables, a metals sampling plan to determine the concentrations of metallic Hazardous Air Pollutants that were required to be modeled in 3.9.21.1. Such concentrations shall be determined using EPA Method IO 3.5, NIOSH 7303, or other methods approved by CDPH. The concentrations of the metals shall be evaluated at least once every permit term, or in conjunction with all scheduled nephelometer site-specific calibrations in 3.9.21.3, whichever time period is shorter.

3.10. Operating Plan

The application shall contain an operating plan ("Operating Plan") for the Facility that shall include, at a minimum, the following components, in order:

3.10.1. Types of Recyclable Material

The Operating Plan shall include a description of the types and quantities of materials accepted at the Facility. It shall also include the screening measures to be used by the Facility to ensure that Unauthorized Materials are not accepted, improperly disposed of, or unlawfully reused offsite. The operating plan shall include, but not be limited to:

- 3.10.1.1. 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 to the Department of Streets and Sanitation pursuant to Chapter 11-5 of the Code, or 3) the material names listed in Section 8 of the Recycling Facility Permit Application Form (Version 1802), as amended;

- 3.10.1.2. A description of the source types (industrial, commercial, residential, construction or demolition activity, junk peddlers, tow-truck drivers, Waste transfer stations, recycling service pick-ups, etc.) from which the different types of materials will be accepted, and the source-screening protocol, including radiation screening of metal scraps, that will be followed to ensure Unauthorized Materials will not be brought to the Facility;
- 3.10.1.3. A screening plan that provides for the screening of loads, including radiation screening of metal scraps, entering the Facility that ensures loads containing Unauthorized Materials will not be allowed to unload at the Facility. The plan shall also describe in detail the inspection procedures for unloaded materials;
- 3.10.1.4. A plan for the segregation and removal of all Unauthorized Material from the Facility; and
- 3.10.1.5. An emergency response plan for the handling, storage, and disposal of hazardous or dangerous materials that require immediate attention or specialized handling and/or disposal.

3.10.2. Quantity of Recyclable Material

The Operating Plan shall include a description of the daily quantities of materials in tons accepted at the Facility during average and peak-volume seasons and shall include:

- 3.10.2.1. Documentation to Demonstrate that the Facility has a sufficient number of covered containers to store all newsprint, paper, corrugated paper, and cardboard that will be accepted;

- 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, 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; and
- 3.10.2.3. Documentation to Demonstrate that the Facility has the ability to determine and record the amounts of material in tons entering and exiting the Facility, material Processed at the Facility, and can readily generate a summary report on these quantities in a reasonable period of time when requested by the Commissioner.

3.10.3. Devices, Apparatus, and Processes

The Operating Plan shall Demonstrate, through detailed calculations, flow diagrams, and operating guidelines, that the Facility is capable of Processing the average and maximum peak season daily quantities anticipated for the Facility in a safe manner, including, but not limited to:

- 3.10.3.1. A flow diagram(s) indicating the material flow between each major Process line or Process step. The flow diagram(s) shall depict the flow of material between each structure, fixed equipment, Storage and Staging piles, unloading areas, and loading areas on the diagram. The diagram(s) shall also indicate Processing rates for structures and fixed equipment, staffing requirements, Storage and Staging capacities, mean Storage and Staging times, and inflow /outflow rates, including operating hours;
- 3.10.3.2. A health and safety plan that includes all job hazard assessments and a description of the OSHA-required safety devices or procedures employed for all Processing equipment such as, but not limited to, electric lockout devices, guarding, emergency stopping devices, and explosion-proof switches and controls; and

3.10.3.3. A description and results of any OSHA-required worker air and noise exposure sampling for Facility activities such as, but not necessarily limited to, welding, torching, sanding, crushing, and grinding. As applicable, these documents shall be provided in compliance with the Health Insurance Portability and Accountability Act (HIPAA) requirements.

3.10.4. Fire Prevention

The Facility shall comply with the requirements of the Municipal Code and all applicable local, state, and Federal laws and regulations relating to fire prevention. The Operating Plan shall include a Fire Prevention and Response Plan. At a minimum, the Fire Prevention and Response Plan shall include:

- 3.10.4.1. A description of the safety measures employed to prevent fires;
- 3.10.4.2. A list of all flammable or explosive materials used in the day-to-day operation of the Facility, their amounts, storage method and location at the Facility;
- 3.10.4.3. A description of the handling procedures for the flammable or explosive materials listed;
- 3.10.4.4. Details and specifications of a fire detection system for the Facility;
- 3.10.4.5. Specifications and locations of all fire suppression equipment including, but not limited to, extinguishers, automatic sprinklers, and hoses. This information may be shown in the general layout plan required in 3.9.5;
- 3.10.4.6. A description of the responsibilities of all employees in the event of a fire; and
- 3.10.4.7. A stockpile monitoring protocol that includes the use of thermal cameras, designed to prevent fires and explosions from ASRs and metal stockpiles.

3.10.5. Emergency Communications

The Operating Plan shall contain a description of the emergency communication system. This description shall include, but not be limited to:

- 3.10.5.1. A listing of all equipment available for routine communications and emergency communications;
- 3.10.5.2. A list of authorities and on-call emergency environmental contractors that may be contacted in the event of an emergency situation; and
- 3.10.5.3. A description of the internal chain-of-command in the event of an emergency, including a description of responsibilities.

3.10.6. First Aid Equipment

The Operating Plan shall contain a description of the first aid equipment available at the Facility. This description shall include, but not be limited to:

- 3.10.6.1. A listing of first aid supplies available at the Facility; and
- 3.10.6.2. A description of the location of first aid equipment.

3.10.7. Rodent/Vector Control

The Operating Plan shall include a plan for the effective prevention and control of rodents and other Vectors, and at a minimum, shall include:

- 3.10.7.1. A minimum of monthly inspections to be conducted by a Vector control specialist of the entire Facility for rodents, mosquitos, and other Vectors. A record of the most current inspection and eleven previous inspections shall be maintained at the Facility; and
- 3.10.7.2. A detailed description of all measures employed (e.g., bait stations and traps) to prevent infestation by rodents, mosquitos, and other Vectors, including good housekeeping practices used to control rodents, mosquitos, and other Vectors.

3.10.8. Vehicles

The Operating Plan shall describe the vehicles to be used at the Facility, including:

- 3.10.8.1. A list of all types of vehicles proposed to be maintained at the Facility and maintenance activities to be performed;
- 3.10.8.2. The quantity of each type of vehicle maintained at the Facility;
- 3.10.8.3. The intended use and operating plan for each vehicle;
- 3.10.8.4. The number of employees qualified to operate each vehicle; and
- 3.10.8.5. The quantity of material in tons each vehicle is expected to be able to Process or transport.

3.10.9. Disposal Facilities

The Operating Plan shall identify all disposal facilities to which Liquid Waste and residual Waste from the Facility will be hauled. The information shall include:

- 3.10.9.1. The name and location of all disposal and other facilities where Solid Waste, Liquid Waste, and recovered refrigerants will be disposed of or recycled.

3.10.10. Daily Housekeeping and Cleaning

The Operating Plan shall Demonstrate that the daily housekeeping and cleaning procedures are sufficient to minimize dust, track-out, and the presence of rodents, mosquitos, and other Vectors and odors, and shall include, but not be limited to:

- 3.10.10.1. A description of all daily cleaning activities, including the cleaning of pavements complying with subsection 4.14 of these rules;
- 3.10.10.2. A schedule indicating the initiation and completion of daily cleaning activities;
- 3.10.10.3. The make, model and specification of the street sweeper required in 4.14.2 of these rules and any sprayers, misters and other dust suppression equipment employed at the Facility;

- 3.10.10.4. A description of materials, supplies, and quantities necessary to complete the daily cleaning activities and to clean up leaks and spills;
- 3.10.10.5. A description of the staffing that will be dedicated to conducting the required daily cleaning activities; and
- 3.10.10.6. A record-keeping plan to document daily cleaning-activities.

3.10.11. Hours of Operation

The Operating Plan shall specify the hours of operation of the Facility, including Processing, receipt, and maintenance activities. Operating hours shall be limited to the hours specified in 4.2 unless a waiver is granted by the Commissioner.

3.10.12. Closure Plan

The application shall contain a Closure Plan. The Closure Plan shall include, at a minimum, the following components, in this order:

- 3.10.12.1. Closure Plan Activities. The Closure Plan shall list activities that will occur upon Closure, including a listing of materials necessary for Closure and a schedule for completion.
- 3.10.12.2. Material Removal. The Closure Plan shall include a plan for removing all Recyclable Materials and Waste material from the Facility.
- 3.10.12.3. Equipment Decommissioning. The Closure plan shall include a plan for decommissioning and cleaning all equipment and structures at the Facility.
- 3.10.12.4. Cost Estimates. For Class V Facilities, the Closure Plan shall include cost estimates for the completion of all Closure activities. The cost estimates shall be based on the cost necessary for Closure at any time during the life of the Facility and shall not be discounted to current values. The cost estimate shall reflect a worst-case scenario.

3.10.12.5. Financing. For Class V Facilities, the Closure Plan shall include Documentation to Demonstrate that sufficient financing is available to complete all Closure activities.

4. Recycling Facility Operating Standards

A Large Recycling Facility shall comply with the following operational standards. All plans required for the application must be consistent with the standards described below.

4.1. Permit

The Facility shall be operated in accordance with the current permit application on file with the Department and the current permit issued by the Department. A copy of the permit shall be maintained at the Facility as part of the Operating Record and shall be reviewed at a minimum annually by the Operator. If the current permit application and the current permit conflict, the permit shall govern.

4.2. Hours of Operation

The Facility operating hours shall be limited to the hours specified in Section 8.0 of the Recycling Facility Rules, as amended unless a written waiver is issued by the Commissioner. A request for a written waiver shall include a noise impact assessment, as described in 3.9.19 of these rules.

4.3. Material Volume and Weight Limitations

The Facility may not exceed the volume or weight limits specified in the permit. If in response to an emergency, the Facility is required to receive a volume or weight that exceeds the permitted limit, a written record of the date, time, additional volume or weight, and reason shall be made part of the Facility's Operating Record, and the Operator shall notify the Department in accordance with the permit.

4.4. Material Management and Enclosure

4.4.1. Storage Stockpiles.

Except as provided below, the height of any outdoor Storage stockpile within the Facility shall not exceed 20 feet. The Facility shall maintain height markers up to 30 feet, with gradations marked at one-foot intervals, at all outdoor stockpile locations to indicate the current height of material stockpiles.

4.4.2. Auto Shredder Residue (ASR)

Post-Processed ASR shall be stored inside a covered, fire-proof enclosure that effectively protects the stored material from precipitation and potential ignition sources, and that prevents this material from becoming windborne. Such enclosure must be durable, weatherproof, and structurally sound and have side walls designed to resist the deadload of the ASR material piled next to it and the live load of equipment pushing ASR material on to the walls.

Staged ASR awaiting processing shall be stored in a manner that minimizes the emission of dust and ASR Fibers from becoming windborne. Facilities found liable of violating any applicable Municipal Code ordinance, rule, or permit condition relating to the offsite deposition of ASR Fibers must implement onsite controls consisting of structural controls, potentially including the 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.

4.4.3. Staging Areas

The height of Staged stockpiles within an authorized Staging Area (“Staged Piles”) may be up to 30 feet tall, provided the Operator complies with the following conditions:

- 4.4.3.1. Materials in Staged Piles shall consist exclusively of materials awaiting further Processing at the Facility;
- 4.4.3.2. The Operator does not exceed the Staging Area’s volume capacity in cubic yards as set forth in the permit;
- 4.4.3.3. The Operator complies with the quarterly reporting requirements in 4.17, and
- 4.4.3.4. Upon receiving a written request from CDPH, the Operator shall timely submit hourly or daily throughput data, and other information requested by the Department deemed necessary to determine compliance with this subsection.
 - a) Failure to meet any of the above requirements will make the Staged Pile subject to the 20-foot height limit.

- b) A variance may be requested to increase the height of a Staged Pile located within an authorized Staging Area. Such requests are subject to the variance requirements contained in Section 6 of these rules.

4.4.3.5. Indoor Piles

None of the height limitations in 4.4 shall apply to material piles located wholly inside a building.

4.5. Vehicles and Equipment

The Facility shall have sufficient vehicles and equipment available at all times to accept and Process the Facility's permitted volumes or weights of material. Such vehicles and equipment shall be operated in a manner that minimizes emissions, including but not limited to, the following:

4.5.1. Vehicles

All 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. All leaking containers and torn tarps shall be decommissioned and replaced or repaired.

4.5.2. Rails and Barges

Railcars and barges must be loaded in a manner that will control dust through the use of best management practices such as but not limited to, the use of solid covers, telescoping loading booms, dust chutes and the application of dust suppression agents and/or water.

4.5.3. Stationary Equipment

All stationary mechanical equipment shall meet or exceed the emission control level required under the Facility's local, state, and federal air permits, as applicable.

4.6. Noise Monitoring and Standards

The Facility shall not cause a noise nuisance and shall comply with the performance standards for noise and vibration specified in the Municipal Code.

4.6.1. Noise Monitoring

A Large Recycling Facility that shreds vehicles or potentially explosive materials shall conduct noise monitoring as follows:

4.6.1.1. Noise Monitors

Install, operate, and maintain noise monitors within or around the perimeter of the Facility in accordance with the noise monitoring plan prepared under paragraph 3.9.19.4 of these rules.

4.6.1.2. Data-logging

A data logger shall be attached to all noise monitors to record sound pressure levels in one-band octaves and dB(a) using impulse time weighting mode or a time weighting mode approved by CDPH.

4.6.1.3. Noise Report

The raw data collected by the data logger and the results of any scheduled noise instrument calibration tests shall be submitted to CDPH on a monthly basis. Such reports shall be sent to envwastepermits@cityofchicago.org within two weeks from the end of the reporting period month.

4.7. Air Quality Standards and Monitoring

The Facility shall comply with all of the following requirements to minimize air quality impacts:

4.7.1. Certificate of Operation

The Facility shall possess a certificate of operation issued in accordance with Section 11-4-660 of the Ordinance. The Department reserves the right to impose dust control requirements, in addition to the requirements set forth in these rules, as conditions of the Facility's certificate of operation or air pollution control permit.

4.7.2. Fugitive Dust

Except as provided herein, neither the Owner nor Operator shall cause or allow the emission of Fugitive Dust into the atmosphere and shall comply with the following requirements.

4.7.3. Visible Dust

No visible Fugitive Dust shall travel beyond the boundaries of the Facility. Using the method specified in 35 IAC 212.107, the Owner or Operator shall conduct once-daily observations of Fugitive Dust around all sides of the Facility when there have been less than 0.1 inches of precipitation within the previous 24-hours.

A copy of the daily Fugitive Dust observation results must be attached to the Operating Record.

4.7.4. Opacity Limit

The Owner or Operator shall not cause or allow the emission of any Fugitive Dust within the Facility at any Storage pile, transfer point, roadway or parking area that, for a period or periods aggregating more than three minutes in any one hour, exceeds an opacity of 10% based on a visual reading in accordance with the measurement method specified in 35 IAC 212.109.

4.7.5. Quarterly Opacity Measurements

Quarterly testing shall be conducted to ensure compliance with the opacity limit set forth in 4.7.4. Such testing must be conducted by a professional trained and certified to read opacity in accordance with the measurement method specified in 35 IAC Part 212.109. Opacity readings should be taken under representative weather and operating conditions. A copy of the quarterly opacity measurement results must be attached to the Operating Record.

4.7.6. State Operating Program for Fugitive Dust

The Operator shall provide CDPH a copy of and implement its Operating Program as required under 35 IAC Part 212 Subpart K. In addition, the Operator shall submit to CDPH any subsequent amendments to the Operating Program as required in 35 IAC Part 212.312 within 30 days of sending such amendments to IEPA. The CDPH may require additional information or measures to supplement the State Operating Program based on site-specific conditions.

4.7.7. Consequential Facility Air Monitoring Requirements

A Consequential Facility shall conduct dust and wind monitoring as follows:

- 4.7.7.1. Continuous PM10 Monitoring. Install, operate, and maintain continuous PM10 monitors around the perimeter of the Facility in accordance with the dust monitoring plan prepared under paragraph 3.9.21.2 of these rules. These instruments must be designated as Federal Equivalent Method (FEM) by EPA or meet the requirements for a Near Reference PM 10 Monitor as defined in these rules.
- 4.7.7.2. CDPH may require the installation of additional air monitors or the relocation of existing air monitors if the Facility causes a dust nuisance or if CDPH determines that the current number or placement of air monitors at the Facility is ineffective or inadequate.
- 4.7.7.3. Additional monitoring. The Department may require the Consequential Facility to install, operate, and maintain other monitoring methods, including, but not limited to, video recording and one or more filter-based monitoring sites, when PM10 monitoring does not provide sufficient information regarding Fugitive Dust for the Commissioner to adequately assess the health impacts of such emissions. Any additional monitoring methods shall meet the specifications set forth in an approved fugitive dust plan. In the event that additional monitoring is required, the Department will provide a reasonable time period for equipment installation.
- 4.7.7.4. Continuous Weather Monitoring. Install, operate, and maintain, according to manufacturer's specifications, a weather station, or other permanent device to monitor and record wind speed and wind direction, along with the corresponding temperature, precipitation, and relative humidity at the Facility. Such readings shall be taken at an unobstructed, unsheltered area, centrally positioned in relation to the Storage or Staging piles and dust-causing activities, and at a minimum height of 10 meters above ground level, unless another height is appropriate pursuant to applicable US Environmental Protection Agency protocols and guidance.

- 4.7.7.5. Data-logging. A data logger shall be attached to all air monitors and weather stations to record readings from the monitors. All data collected shall be consistent with units in the National Ambient Air Quality Standards for PM10, and ambient monitoring practices must comply with current US Environmental Protection Agency protocols and guidance for ambient air quality monitoring, including but not limited to those for data completeness, calibration, inspection, maintenance, and site and instrument logs.
- 4.7.7.6. Reportable Action Level (RAL). The PM10 RAL is the concentration of PM10 measured at any monitoring location at the Facility that will trigger response activities under the contingency plan required under 4.7.7.12. The PM10 RAL shall be 150 micrograms per cubic meter averaged over a 15-minute period, unless a different concentration or averaging time is specified by CDPH in the permit. In cases where there is an upwind PM10 monitor present, the upwind PM10 concentration may be subtracted from the downwind PM10 concentration in determining a PM10 RAL exceedance. CDPH may require a different or multiple site-specific RALs based on the potential emissions of metals and pollutants from the Facility, ambient background concentrations of PM10, adjacent offsite sources of PM10, the Facility's compliance history and level of housekeeping, and/or other pertinent factors.
- 4.7.7.7. Additional RALs. The Department may set forth different or additional RALs in the permit for wind speeds, PM2.5, VOCs, and other pollutants based on the information contained in the application, the Facility's compliance history, the occurrence of dust nuisance and health complaints and/or other factors.
- 4.7.7.8. Alternate RAL. The Applicant may propose an alternate PM10 RAL concentration or PM10 RAL averaging time to CDPH. Such proposal shall Demonstrate the following:

- a) The current PM10 RAL is not reliable due to offsite ambient PM concentrations beyond the control of the Operator;
- b) The proposed PM10 RAL is protective of human health and the environment. This Demonstration shall include filter-based sampling showing the air concentration of various metals and pollutants handled at the Facility; and
- c) The proposed RAL does not violate any applicable local, state, or federal air quality standards or requirements.

The Department may reinstate the RAL in 4.7.7.6 should it find the alternate RAL insufficient in preventing nuisances and negative impacts on human health and the environment.

4.7.7.9. Monthly Data Reporting. All data collected pursuant to 4.7.7.5 must be submitted to CDPH within 14 days of the end of the month in which the data was collected via email to envwastepermits@cityofchicago.org, in a format specified by the Department.

4.7.7.10. RAL Notification. When a reportable action level is exceeded, the Operator shall use telemetry or other means to notify CDPH by email at envwastepermits@cityofchicago.org within fifteen (15) minutes or within the timeframe specified in the permit. The subject line of such email shall contain the words "RAL Alert Condition - " followed by the Facility's permit number. The notification shall include the following information recorded at the time the RAL occurred:

- a) The date and time of the RAL exceedance;
- b) The average wind speed and wind direction recorded over a 15-minute period;

- c) The concentrations of PM10 recorded by all monitors over the same 15-minute period; and
- d) The latitude and longitude coordinates in decimal degrees of all monitoring locations.

4.7.7.11. RAL Recording. Within 24-hours of an RAL, the Operator shall record the following information in the Operating Record:

- a) The date and time of the exceedance;
- b) The recorded wind speed and PM10 concentration(s) at the time of the RAL;
- c) The onsite and/or offsite source(s) of the emission;
- d) A description of the mitigative action(s) taken;
- e) A description of any operational impact as a result of the RAL incident; and
- f) A description of any preventive measure(s) to reduce or eliminate future occurrence.

4.7.7.12. Contingency Plan. The Owner or Operator shall prepare a contingency plan describing mitigative actions that will be taken when the monitors detect PM10 or other parameters that exceed the RAL under these rules or in the permit. The response activities should consist of a range of increasingly aggressive measures appropriate to different levels of exceedance and take into account whether the source is determined to be onsite or offsite.

4.7.7.13. Dust Monitoring Plan. Fully implement and maintain compliance with the dust monitoring plan prepared under paragraph 3.9.21.2 of these rules.

4.7.7.14. Exemption. The Applicant may request an exemption from any or all of the requirements under 4.7.7, provided it can demonstrate compliance with all the following criteria to the satisfaction of the Commissioner:

- a) The Facility conducts all loading, unloading, Processing, and material Storage inside a building with adequate emission controls;
- b) The Facility has no unpaved parking lots or internal roadways within 660 feet of a Sensitive Area. For the purpose of this exemption, unpaved means not paved with concrete or hot-mix-asphalt; and
- c) The Facility has not been found in violation of any air-quality laws relating to Fugitive Dust emissions in the previous three years.

4.8. Utilities

All necessary Utilities shall be available with sufficient capacity to serve the Facility and its operations. In the event of a disruption of any Utility service, a contingency plan shall exist to provide backup capacity, provide procedures for safe operation and emergency equipment, or diversion of materials to other facilities during the disruption.

4.9. Equipment Maintenance

Equipment and vehicles used at the Facility shall undergo routine maintenance. The Facility shall develop a maintenance plan for all equipment and vehicles used in Facility operations. Such records shall be maintained in the Operating Record. The Owner and Operator shall prevent the usage of any vehicle or equipment that is in need of repair and would pose a safety issue, result in structural or mechanical damage, or pose a risk to the environment if used.

4.10. Source and Load Screening

The Facility shall accept and Process only those Recyclable Materials authorized in the permit. The Operator shall conduct screening of materials in accordance with the screening plan required in 3.10.1.3 of these rules. Any Unauthorized Materials inadvertently accepted shall be removed from the Facility as soon as possible in accordance with the conditions of the permit and all local, state, and federal requirements.

4.11. Material Handling, Paved Surface

All material handling activities, including unloading, screening, Processing, and loading, shall be conducted on a paved surface.

Recyclable Materials that may leak fluids or leave oily residue shall be delivered and stored indoors, or on a dedicated, impermeable pad such as concrete, compacted clay, or other engineered material as approved by the Commissioner. The impermeable pad shall be sloped, bermed, or otherwise constructed to prevent stormwater Run-on and Run-off, and facilitate the capture and collection of fluids. The Operator must properly dispose of all Liquid Waste collected at the Facility.

4.12. Shredder and Shredder Enclosure

For New and Expanding Facilities, Shredders that Process vehicles or have potentially explosive feedstock must be enclosed.

For all Facilities, Shredders shall 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.

4.13. Fire Prevention and Accident Safety Plan

The Facility shall have a fire prevention and accident safety plan; shall operate in compliance with applicable National Fire Protection Association (NFPA) performance standards for fire and explosive hazards; and shall install and maintain fire suppression equipment as specified in the Chicago Zoning Ordinance, the building regulations and applicable fire prevention regulations of the Municipal Code.

4.14. Pavement Maintenance and Cleaning

All driveways, access roads, parking areas, and other areas used for vehicle traffic shall be properly maintained to prevent or minimize any dust emissions, standing water, and the tracking of mud offsite.

4.14.1. Sweeping

All Site pavements, adjacent pavements accessible by the Owner or Operator, and 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 or emitted materials from the Facility's operation.

For Facilities that store or handle ASR, the Owner or Operator shall also clean sidewalks, parkways, public areas, and private properties (with

owner permission) of any ASR Fibers present within a quarter-mile from the Facility. In the event ASR Fibers are found, the Owner or Operator shall continue to clean and street-sweep an additional 660 feet (one block) until no more ASR Fibers are observed.

4.14.2. Street Sweeper

The street sweeper shall be equipped with a water spray, for use during nonfreezing weather, and a vacuum system to prevent Fugitive Dust during street sweeping. A dry vacuum-assisted street sweeper may be used upon demonstration, to the satisfaction of the Commissioner, that such sweeper has a 90% efficiency, or better, in removing fine particulates.

4.14.3. Sweeping Frequency

The street sweeping shall be sufficient so that not more than four hours elapses between each street sweeper cleaning or after every 100 vehicle material receipts or dispatches, but not less than one time daily when the Facility is in operation unless all pavements that require sweeping under this section are free and clear of any material transported to or from the Facility or emitted by Facility operations. 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 in 4.14.4.

4.14.4. Sweeping Log

The date and time when street sweeping was performed and the total vehicle count shall be recorded each operating day.

4.14.5. Pavement Repair

Broken pavements and potholes shall be promptly backfilled with aggregate, patched, or repaired in accordance with the permit. CDPH may allow for additional time through the permit conditions, provided the Applicant can demonstrate the following to CDPH:

- a) The Facility has a Vector control plan that addresses mosquitos;
- b) The standing water is not occurring in areas subject to truck traffic. Poned water on traveled areas should be promptly backfilled

- with aggregate and be repaired as soon as possible to minimize dust generation and track-out;
- c) The ponded water will dissipate or will be removed (using a sump pump, absorbent, or other means) within 72 hours of a rain event; and
- d) The Facility is judiciously applying water based on weather conditions (temperature, relative humidity, etc.) and in-situ material moisture content, as well as utilizing appropriate misters, sprinkler heads, water cannons, and/or other devices/systems specifically designed or appropriate for dust-control applications.

4.15. Traffic

The Facility shall not cause the back up of vehicles onto public roads or rights-of-way at any time. No vehicles used in the operations of the Facility shall be parked, idled, or wait along public streets or rights-of-way. The Owner or Operator shall have or arrange for sufficient parking available for all personnel, visitors, and vehicles used for the operations of the Facility.

4.16. Record Keeping

All records required to be kept under these rules shall be maintained at the Facility a minimum of three years unless otherwise specified in the permit and shall be made available to CDPH upon request.

4.17. Quarterly Reporting

Using forms provided by CDPH, the Facility shall submit a quarterly report containing the following information:

- 4.17.1. The monthly tonnage of Unauthorized Materials inadvertently accepted at the Facility broken down by type;
- 4.17.2. The monthly tonnage of Recyclable Materials received and shipped at the Facility broken down by the type of material described in 3.10.1.1;

- 4.17.3. For auto-shredding facilities, the total tonnage of vehicles shredded by month;
- 4.17.4. Facilities that generate, treat, and/or store ASR shall provide the tonnage of ASR shipped offsite for disposal and a description of any methods used to stabilize or solidify heavy metals to meet waste-disposal requirements;
- 4.17.5. The number of days the Facility was in operation broken down by month;
- 4.17.6. A list of the disposal facilities used to dispose of the Unauthorized Materials and Waste, and the types and quantities of materials taken to each disposal facility;
- 4.17.7. The disposition and amount in gallons of Liquid Waste disposed of offsite;
- 4.17.8. The disposition and amount of refrigerants recovered at the Facility;
- 4.17.9. The amount of acetylene or other compressed gas or fuel used to cut metals at the Facility, including metals cut for operations and maintenance purposes;
- 4.17.10. A chronological summary of the following events at the Facility:
 - a) All environmental, health, fire and building code violations, as well as all corrective actions implemented;
 - b) All emergencies that occurred at the Facility;
 - c) All nuisance complaints received by the Owner or Operator, and their outcomes; and
 - d) Any other information requested by CDPH to track compliance with the permit and these rules.

The quarterly report shall be submitted to CDPH within 45 days following the end of each quarter.

5. **Implementation Schedule**

These Rules shall take effect as follows:

These rules shall go into effect upon signing by the Commissioner (“Effective Date”).

For a New or Expanding Facility, the requirements in Section 3 shall take effect immediately on the Effective Date. For an Existing Facility, the requirements in Section 3 shall take effect on all renewal permit applications submitted on or after one year following the Effective Date of these rules.

The requirements in Section 4 shall take effect no later than the timeline specified in the operating permit issued for an application submitted pursuant to Section 3, but no later than six months from the date the permit is reissued, unless an extension for good cause is granted by the Commissioner.

Subsequent to the schedules above, an Existing Facility that becomes a Consequential Facility over the course of the permit term shall submit a revised application no later than 90 days after receiving a written notification from CDPH that the Facility has been deemed a Consequential Facility by the Department. Such an application shall comply with all the requirements for a Consequential Facility application pursuant to these rules.

The Commissioner may, at the Commissioner’s sole discretion, grant extensions of the timeframes provided above upon request and only for good cause shown by the Applicant.

6. Applications for a Variance

The Applicant may apply to the Commissioner for a variance from any rule set forth in Sections 3 and 4 in accordance with the provisions set forth below.

6.1. Requirements of the Variance Application

The request for a variance must be in writing and must set forth, in detail, all of the following:

6.1.1. Standard Requirements

- 6.1.1.1. A statement identifying the rule or requirement for which the variance is requested;
- 6.1.1.2. A description of the process or activity for which the variance is requested, including pertinent data on location, size, and the population and geographic area affected by, or potentially affected by, the process or activity;
- 6.1.1.3. The quantity in tons and types of materials used in the process or activity in connection with which the variance is requested, as appropriate;
- 6.1.1.4. Documentation to Demonstrate that the variance will not create a public nuisance or adversely impact the surrounding area, surrounding environment, or surrounding property uses;
- 6.1.1.5. A statement explaining:
 - a) Why compliance with the rules imposes an arbitrary or unreasonable hardship;
 - b) Why compliance cannot be accomplished during the required timeframe due to events beyond the Facility Operator's control such as permitting delays or natural disasters; or
 - c) Why the proposed alternative measure is necessary.

- 6.1.1.6. A description of the proposed methods to achieve compliance with the rules and a timetable for achieving that compliance, if applicable;
- 6.1.1.7. A discussion of alternate methods of compliance and of the factors influencing the choice of applying for a variance; and
- 6.1.1.8. A statement regarding the Person's current status as related to the subject matter of the variance request;

6.1.2. Height Variance for Staged Piles

In addition to the information required in 6.1.1, an application for a Staged Pile height variance shall include the following:

- 6.1.2.1. Documentation to Demonstrate that the Staged Pile is in character with neighboring land uses and does not present a visual blight to the community; and
- 6.1.2.2. A Staged Pile surveillance plan that includes the installation and operation of web-based cameras with recording storage capacities of 60-days or more. The CDPH shall be provided access to all live and recorded footage.

6.2. Criteria for Reviewing Variance Applications

In determining whether to grant a variance, the Commissioner will consider public comments received pursuant to 6.4 and will evaluate the information provided in the variance application.

6.2.1. Consideration

Particular consideration will be given to the following information:

- a) Inclusion of a definite compliance program;
- b) Evaluation of all reasonable alternatives for compliance;
- c) Demonstration that any adverse impacts will be minimal;

6.2.2. Denial

The Commissioner may deny the variance if the application for the variance is incomplete or if the application is outside the scope of relief provided by variances;

6.2.3. Variance Scope and Conditions

The Commissioner may grant a variance in whole or in part, and may attach reasonable conditions to the variance, or require alternative measures, to ensure minimization of any adverse impacts and to accomplish the purposes of Chapter 11-4 of the Code; and

6.2.4. Issuance and Revocation

Issuance of a variance is at the sole discretion of the Commissioner. A variance may be revoked at any time if the Commissioner finds that operation of the Facility is creating a public nuisance or otherwise adversely impacting the surrounding area, surrounding environment, or surrounding property uses.

6.3. Change in Facility Operations

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

6.4. Notice of Variance Applications

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

7. Other Laws

These rules in no way affect the Facility's responsibility to comply with all other applicable federal, state, City laws, Ordinances, and Rules, including but not limited to those regarding the construction, operation, maintenance, and Closure of the Facility.

8. Severability

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

Appendix A Requirements Applicability Table

Rule	Requirement*	Existing	Modifying	New	Expanding	Consequential
Application Requirements for a Large Recycling Facility Permit						
3.1.	Professional Engineer	X ¹	X	X	X	X
3.2.	Submittal Formats	X	X	X	X	X
3.3.	Description of Operations	X	X	X	X	X
3.4.	Facility and Property Summary	X	X	X	X	X
3.5.	Facility Summary	X	X	X	X	X
3.6.	Property Owner's Authorization	X	X	X	X	X
3.7.	Property Taxes	X	X	X	X	X
3.8.	Nature of a Special Use	X ²	X ²	X ²	X ²	X ²
3.9.	Design Report	X	X	X	X	X
3.9.1.	Site Survey			X	X	
3.9.2.	USGS Site Location Map			X	X	
3.9.3.	Aerial Photograph Drawing(s)			X	X	
3.9.4.	Location Standards			X	X	
3.9.5.	General Layout of the Facility	X	X	X	X	X
3.9.6.	Pavements	X ⁴	X ⁴	X ^{3,4}	X ^{3,4}	X ⁴
3.9.7.	Utilities			X	X	
3.9.8.	Water Sources			X	X	
3.9.9.	Site Security	X	X	X	X	X
3.9.10.	Structures and Fixed Equipment	X	X	X ⁵	X ⁵	X
3.9.11.	Tipping Floor and Storage Capacity	X	X	X	X	X
3.9.12.	Water Drainage			X	X	
3.9.13.	Traffic	X	X	X ⁶	X ⁶	X
3.9.14.	Expected Waste Generation			X	X	
3.9.15.	Parking			X	X	
3.9.16.	Employee Facilities			X	X	
3.9.17.	Perimeter Barrier	X	X	X ⁷	X ⁷	X
3.9.18.	Stormwater Pollution Prevention Plan	X ⁸	X ⁸	X ⁸	X ⁸	X ⁸
3.9.19.	Noise Impact Assessment	X ⁹	X ⁹	X ⁹	X ⁹	X ^{9,10}
3.9.20.	Storage Tanks	X	X	X	X	X
3.9.21.	Air Quality Impact Assessment					X
Operating Plan						
3.10.1.	Types of Recyclable Material	X	X	X	X	X
3.10.2.	Quantity of Recyclable Material	X	X	X	X	X
3.10.3.	Devices, Apparatus, and Processes	X	X	X	X	X
3.10.4.	Fire Prevention	X	X	X	X	X
3.10.5.	Emergency Communications	X	X	X	X	X
3.10.6.	First Aid Equipment	X	X	X	X	X
3.10.7.	Rodent/Vector Control	X	X	X	X	X
3.10.8.	Vehicles	X	X	X	X	X
3.10.9.	Disposal Facilities	X	X	X	X	X
3.10.10.	Daily Housekeeping and Cleaning	X	X	X	X	X
3.10.11.	Hours of Operation	X	X	X	X	X
3.10.12.	Closure Plan	X ¹¹	X ¹¹	X ¹¹	X ¹¹	X ¹¹

Appendix A Requirements Applicability Table

Rule	Requirement*	Existing	Modifying	New	Expanding	Consequential
Recycling Facility Operating Standards						
4.1.	Permit	X	X	X	X	X
4.2.	Hours of Operation	X	X	X	X	X
4.3.	Material Volume and Weight Limitations	X	X	X	X	X
4.4.	Material Management and Enclosure	X	X	X	X	X
4.5.	Vehicles and Equipment	X	X	X	X	X
4.6.	Noise Monitoring and Standards					X ¹⁰
4.7.	Air Quality Standards	X	X	X	X	X
4.7.3	Consequential Facility Air Monitoring					X
4.8.	Utilities	X	X	X	X	X
4.9.	Equipment Maintenance	X	X	X	X	X
4.10.	Source and Load Screening	X	X	X	X	X
4.11.	Material Handling, Paved Surface	X	X	X	X	X
4.12.	Shredder and Shredder Enclosure		X ¹²	X ¹²		
4.13.	Fire Prevention and Accident Safety Plan	X	X	X	X	X
4.14.	Pavement Maintenance and Cleaning	X	X	X	X	X
4.15.	Traffic	X	X	X	X	X
4.16.	Record Keeping	X	X	X	X	X
4.17.	Quarterly Reporting	X	X	X	X	X

¹ A PE-stamp is not required for any subsequent renewal application of an Existing Facility that is not proposing any Modification or expansion.

² As applicable.

³ All internal roadways and surfaces subject to truck within 100 feet of the properline shall be paved with hot-mix-asphalt or concrete.

⁴ New pavements must provide coss-section drawing or narrative description of pavement system.

⁵ Requires documentation that buildings used to store recyclables meet Code requirements.

⁶ Requires traffic study with traffic counts.

⁷ Requires fencing made out of durable materials.

⁸ Required for Facilities located along Waters or discharge to an MS4.

⁹ Required for Facilities that request a waiver to operate beyond the operating hours specified in the General Recycling Facility Rules.

¹⁰ Noise monitoring plan required for Facilities that shred vehicles or potentially-explosive materials.

¹¹ Class V Facilities must provide a closure cost estimate and proof of financial assurance.

¹² For New or Expanding Facilities that shred vehicles or potentially explosive feedstock.

* In the event of a conflict, the most stringent requirement shall apply.

APPENDIX B

Minimum Specifications for Near-Reference PM 10 Monitors

The PM10 monitors required by the Rules shall meet or exceed the following requirements, subject to approval by the Commissioner:

1. PM10 monitors must be continuous direct-reading near-real time monitors and shall monitor particulate matter less than 10 microns.
2. PM10 monitors must be equipped with:
 - a. Omni-directional heated sampler inlet;
 - b. Sample pump;
 - c. Volumetric flow controller;
 - d. Enclosure; and
 - e. Data logger capable of logging each data point with average concentration, time/date, and data point number.
3. PM10 monitors must have the following minimum performance standards:
 - a. Range: 0 - 10,000 $\mu\text{g}/\text{m}^3$
 - b. Accuracy: $\pm 5\%$ of reading \pm precision
 - c. Resolution: 1.0 $\mu\text{g}/\text{m}^3$
 - d. Measurement Cycle: User selectable
4. In order to ensure the validity of the PM10 measurements performed, there must be appropriate Calibration Plan as set forth in 3.9.21.1 of these rules. It is the responsibility of the Owner or Operator to adequately supplement the Calibration Plan to include the following critical features: instrument calibration, instrument maintenance, operator training, and daily instrument performance (span) checks.