

Layman, Robb

From: Jones, Eric E.
Sent: Friday, November 15, 2019 4:33 PM
To: Skaggs, Tracy
Cc: Pilapil, Ray; Layman, Robb; Mohr, Kent
Subject: FW: General III Fugitive Particulate Operating Program
Attachments: 2019-11-15 GIII Fugitive Dust Operating Program.pdf

Tracy,

Please log this into ICEMAN and assign to me for review.

Thank you

From: John Pinion <jpinion@rka-inc.com>
Sent: Friday, November 15, 2019 4:20 PM
To: Jones, Eric E. <Eric.E.Jones@Illinois.gov>; Barria, German <German.Barria@Illinois.gov>; Bernoteit, Bob <Bob.Bernoteit@Illinois.gov>
Cc: 'Freeborn & Peters LLP; Zwick, Ann (azwick@freeborn.com)' <azwick@freeborn.com>; GII, LLC; Kallas, Jim (jimkallas@general-iron.com) <jimkallas@general-iron.com>
Subject: [External] General III Fugitive Particulate Operating Program



Please find attached a copy of the Fugitive Particulate Operating Program for General III's propose scrap metal recycling facility to be located at 11600 South Burley Avenue in Chicago.

Please review the attached document and forward your comments and questions to my attention and/or to Jim Kallas of GIII (e-mail address above).

Hard copies have been sent to Eric Jones and German Barria for delivery on Monday November 18, 2019.

Thank you.

If you have any questions, please do not hesitate to contact me.

Regards,
John Pinion

RK & Associates, Inc.
2 South 631 Route 59, Suite B
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November 15, 2019

R17421-7.2

Mr. Eric Jones
Illinois Environmental Protection Agency - Bureau of Air
1021 North Grand Avenue East
Springfield, IL 62702

**Fugitive Particulate Operating Program for a
Scrap Metal Recycling Facility
General III, LLC – 11600 South Burley - Chicago, Illinois**

Dear Mr. Jones:

Please find attached a copy of the Fugitive Particulate Operating Program for the proposed General III, LLC (GIII) Scrap Metal Recycling Facility located in Cook County at 11600 South Burley Avenue in Chicago, Illinois. An electronic copy of the above referenced document has also been forwarded to you and Mr. Barria.

If you have any questions or need any additional information, please don't hesitate to contact us at 630-393-9000.

Yours very truly,
RK & Associates

A handwritten signature in cursive script, appearing to read "John H. Davis", written in dark ink.

cc: Mr. Jim Kallas – General III, LLC – Chicago, Illinois (via e-mail)
German Barria – IEPA – Springfield, Illinois (hard copy and via-e-mail)

**Fugitive Particulate Operating Program
General III, LLC – 11600 S Burley Avenue - Chicago, Illinois
November 15, 2019**

R17421-7.2

Prepared for:
General III, LLC
1909 North Clifton Avenue
Chicago, Illinois 60614
Attn: Mr. Jim Kallas

Prepared by:
John G. Pinion
Principal Engineer
RK & Associates, Inc.



2 South 631 Route 59
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Warrenville, Illinois 60555
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TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Facility Location and Contact Information	1
1.2 Illinois Environmental Protection Agency Fugitive Emission Regulatory Requirements .	2
1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301	2
1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program	2
1.3 Definition of Visible Emissions	2
1.4 Site Boundaries	2
2.0 FACILITY SITE MAP	3
3.0 FACILITY OPERATIONS AND APPLICATION OF	5
BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL	
3.1 Raw Material Unloading/Handling	6
3.2 Shredder Enclosure	7
3.3 Material Transfer Points	8
3.4 Material Stockpiles.....	8
3.5 Non Ferrous Processing Building	9
3.6 Material Loadout	10
3.7 Paved Areas	10
3.8 Unpaved Areas	11
4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE	
PARTICULATE CONTROL	13
4.1 Periodic Visible Emissions Observations	13
4.1.1 Employee Observations	13
4.2 Meteorological Data Station	13
4.3 Dust Boss	14
4.4 Paved and Unpaved Areas	14
4.4.1 Water Truck for Paved and Unpaved Areas	14
4.4.2 Sweeper for Paved Areas	14
4.4.3 Wheel Cleaning Station	15
4.5 Other Fugitive Particulate Control Measures	15

4.5.1	Shredder Water Injection	15
4.5.2	Shredder Emission Control System	15
4.5.3	Non-Ferrous Building Baghouse	16
4.5.4	Conveyor Covers	16
4.5.5	ions	16
4.6	Maintenance of Fugitive Particulate Control Equipment	16
5.0	RECORDKEEPING	17
5.1	Meteorological Data	17
5.2	Visible Emissions Observation and Control Form	17
5.3	Water Truck Log	17
5.4	Sweeper Log	18
5.5	Fugitive Particulate Control Equipment Maintenance	18
6.0	PROGRAM AMENDMENT	19

TABLES

Table 3-1	Summary of Facility Operations and Best Management Practices for	6
	Fugitive Dust Control	

FIGURES

Figure 2-1	Facility Location Map
Figure 2-2	Facility Layout Map
Figure 2-3	Facility Layout Drawing
Figure 4-1	Anticipated Dust Boss Locations
Figure 4-2	Designated Areas for Routine Watering and Sweeping



1.0 INTRODUCTION

This Fugitive Particulate Operating Program (Program) has been prepared for the General III, LLC (GIII) scrap metal recycling facility as a condition of Illinois Environmental Protection Agency (IEPA) Construction Permit No. 19090021 (Condition 9.e.).

GIII is a state-of-the-art recycling facility located in the heart of an existing established industrial district well buffered from residential areas. GIII is configured to process 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. GIII will receive and shred mixed recyclable metal in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, and shipment of finished products to customers.

The objective of this Program is to identify, monitor, and treat (as may be necessary) sources of fugitive particulate emissions. GIII is implementing this Program as part of GIII's commitment to be a good neighbor, a good steward of the environment, and to meet or exceed applicable environmental standards (identified in Section 1.2) to be protective of human health and the environment.

1.1 Facility Location and Contact Information

<u>Business Name:</u>	General III, LLC
<u>Source Location:</u>	11600 South Burley – Chicago, Illinois 60617 Hyde Park Township, Cook County Illinois
<u>Latitude/Longitude</u>	41.685201° N / -87.545847° W – Approximate Location of Front Gate
<u>Office/Mailing Address:</u>	1909 N. Clifton Avenue – Chicago, Illinois 60614
<u>Authorized Representative Responsible for this Program:</u>	Mr. Jim Kallas - Environmental Manager 847-508-9170 – jimkallas@general-iron.com
<u>IEPA Site ID No.:</u>	031600SFX
<u>SIC Code:</u>	5093 – Scrap and Waste Materials
<u>NAICS Code:</u>	423930 – Recyclable Material Merchant Wholesalers

1.2 Illinois Environmental Protection Agency – Fugitive Emission Regulatory Requirements

1.2.1 General Limitation for Fugitive Particulate Matter - 35 IAC 212.301

GIII is subject to the general limitation for fugitive particulate matter identified in 35 IAC 212.301, which requires that:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program

Pursuant to 35 IAC 212.302, a Fugitive Particulate Operating Program is required for any facility with operations belonging to specified groups of Standard Industrial Classification (SIC) Codes **and** that are located within a specified area. GIII is located in Cook County, which is a specified area under 35 IAC 212.302; however, GIII's SIC Code (5093 Scrap and Waste Materials) is **not** among the specified SIC codes. Therefore, GIII is not subject to a requirement to have a Fugitive Particulate Operating Program.

Although not required by IEPA regulations, GIII has voluntarily agreed to prepare and implement this Fugitive Particulate Operating Program to describe the best management practices that will be used to minimize potential fugitive particulate emissions and ensure compliance with 35 IAC 212.301.

1.3 Definition of Visible Emissions

For the purposes of this Program, the presence of Visible Emissions means the existence of a visible fugitive particulate plume that threatens to cross the Industrial Campus property line.

Fugitive particulate does not include steam (water vapor), engine combustion exhaust, and particulate matter emitted from a properly permitted exhaust stacks with or without a pollution control device because each permitted exhaust point has a separate opacity limit and particulate mass emission limit included in the facility construction/operation permit.

1.4 Site Boundaries

For the purposes of this Program, the 'property line,' as referenced in 35 IAC 212.301, is the Site Boundary identified in Figure 2-2 (i.e. property line of the industrial campus).



2.0 FACILITY SITE MAP

The location of GIII is shown on Figures 2-1 and 2-2. GIII operates on approximately 25 acres of leased property within an existing industrial campus located at 11600 South Burley Avenue in Chicago, Illinois. Four other affiliated material recycling businesses are located within the industrial campus.

The GIII scrap metal recycling facility is shown on Figure 2-3. The Facility Site Map indicates the locations of the Facility boundaries, buildings, location of material handling and processing areas, shredder enclosure, shredder emission control system, stockpiles, truck scales and facility vehicle entrance.

The vast majority of the Facility is paved with concrete or asphalt pavement. The limited area that is not paved is covered with compacted slag or asphalt grindings.

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3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

GIII is a state-of-the-art recycling facility located in the heart of an existing established industrial district well buffered from residential areas. GIII is configured to process up to 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, stockpiling and off-site shipment of finished products.

Raw materials are delivered to the facility from a variety of sources including retail, commercial/industrial accounts via trucks or contract haulers and peddlers via peddler vehicles. Peddlers and semi-trucks entering the facility first pass through a truck scale.

Semi-trucks are then directed to a material staging area near the raw material stockpiles. Designated Facility personnel inspect all loads for unauthorized materials in accordance with Facility procedures. After unloading, the semi-trucks and peddler vehicles exit the Facility after passing over the appropriate truck scale.

The shredding process produces ferrous metal and Automobile Shredder Residue (ASR) which contains non-metallic material, non-ferrous metal and a limited amount of ferrous metal. Ferrous metal is processed to remove non-metallic material through a series of material handling steps in the Ferrous Metal Processing system to produce clean ferrous metal.

The ASR is directed to a stockpile for temporary storage prior to processing. ASR is transferred a short distance from the ASR stockpile to the Non-Ferrous Metal Processing system using a rubber-tired loader. ASR is processed by a variety of advanced material handling and separation equipment in the Non-Ferrous Metal Processing system to recover various sizes and grades of non-ferrous metals. Non-metallic material removed by the Non-Ferrous Metal Processing system is directed to a stockpile prior to being loaded into semi-trucks for off-site disposal at an appropriately licensed landfill.

Table 1 summarizes facility operations with the potential to generate fugitive particulate and the Best Management Practices (BMPs) that will be utilized to achieve compliance with 35 IAC 212.301. For the purposes of this Program, compliance with 35 IAC 212.301 is determined at the Site Boundary (i.e. the

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

property line of the industrial campus as shown on Figure 2-2). Detailed descriptions of the BMPs are presented in Section 4.0.

Table 1 – Summary of Facility Operations and Best Management Practices for Fugitive Particulate Control

Operation	Best Management Practices				
	Periodic Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Potential Additional BMPs That May Be Used
Raw Material Unloading/Handling	X	X	X		
Shredder Enclosure	X				Water injection/shredder emissions capture and control system
Material Transfer Points	X	X			Conveyor covers on selected conveyors
Material Stockpiles	X	X	X		Partial enclosures (side walls) on selected stockpiles
Non Ferrous Processing Building					Enclosed in a building with building exhaust treated by dust collectors
Material Loadout	X	X	X		Dedicated water spray if needed
Traffic Areas – Paved Areas	X	X	X		Water truck as needed
Traffic Areas – Unpaved Areas	X	X		X	Water truck as needed

3.1 Raw Material Unloading/Handling

Raw scrap in bulk trucks (semi-trailers) is dumped on the ground near the shredder infeed conveyor where cranes equipped with magnets or grapples sort through the material and place it on a raw material stockpile or onto the shredder infeed conveyor of the shredder. These or other cranes equipped with magnets or grapples then transfer the material from the stockpiles to the shredder infeed conveyor.

The following BMPs will be used to identify and control (as needed) Visible Emissions from raw material unloading and handling.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the raw material unloading and handling areas for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized as needed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. Areas adjacent to raw material handling operations will be included in the watering and sweeping of paved areas described in Section 3.7.

3.2 Shedder Enclosure

The shredder is located in a partial enclosure with solid wall panels, open metal grating on the roof and an open area at ground level. Shredder emissions are captured by a hood located over the top of the shredder. Captured emissions are routed to the emission control system. Captured emissions are not fugitive emissions.

Potential sources of fugitive emissions inside the shredder enclosure are limited to three conveyor transfer points and potential uncaptured emissions from the shredder operation.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the shredder enclosure for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

B. Fugitive Particulate Control Measures:

- i. If Visible Emissions are observed exiting the shredder enclosure, operators will perform a system inspection to identify the potential source and cause of the Visible Emissions and take appropriate corrective actions, which may include a change in the shredder water injection rate or shredder emissions capture and control system operating parameters.

3.3 Material Transfer Points

Material is primarily transported through the Ferrous and Non-Ferrous processes on a series of belt conveyors. A material transfer point is the point at which material from an upstream conveyor is transferred to a downstream conveyor, the point at which an upstream conveyor feeds a piece of processing equipment, or the point at which a piece of processing equipment discharges material onto a takeaway conveyor. Visible Emissions from a transfer point may occur when the material being transferred has a high concentration of fine material and low moisture content.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the facility areas with the highest potential for fugitive particulate. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. Conveyor Covers are installed on select conveyors.

3.4 Material Stockpiles**A. Inspections/Observations:**

- i. Trained personnel will conduct visual observations of material stockpiles for the presence of Visible Emissions three times per day and record the results on a VEOC form. If

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. The majority of stockpiles will have solid partitions on three sides.
- iii. Areas adjacent to stockpiles will be included in the watering and sweeping of paved areas described in Sections 3.7.

3.5 Non-Ferrous Processing Building

Non-Ferrous material processing is performed in the Non-Ferrous Processing Building. The building is equipped with four identical baghouses that collect dust from specific points in the process using a network of duct work and hoods. Dust captured in the collection system is routed to a baghouse filter. Treated air from three of the four baghouses is exhausted back into the building. The treated air from the fourth baghouse is discharged to the atmosphere. Particulate emissions in the baghouse exhaust stream that is discharged to the atmosphere are not fugitive emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of conveyor wall openings, personnel doors, and other openings in the Non-Ferrous Processing Building for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

B. Fugitive Particulate Control Measures:

- i. If Visible Emissions are observed from the building openings, the building will be inspected to ensure that personnel and service doors are closed when not in use and that the baghouses are functioning properly. Material removed by the baghouses is collected on a covered conveyor and transferred to the waste material stockpile.

3.6 Material Loadout

Material loadout occurs when stockpiled material is transferred to trucks using a rubber-tired loader, or material handler.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material loadout areas for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles and adjacent loadout areas if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material to minimize the potential for Visible Emissions.
- ii. Areas adjacent to material loadout activity will be included in the watering and sweeping of paved areas described in Sections 3.7.

3.7 Paved Areas

The majority of the facility is paved with concrete or asphalt. The areas with the highest potential for fugitive particulate are the primary traffic routes used by vehicles delivering raw material or transporting materials from the site.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. Heavily traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

B. Fugitive Particulate Control Measures:

- i. The water truck will make daily rounds in designated heavy traffic areas. Use of the water truck will be documented on a daily log. The area(s) where water is applied, the approximate amount of water applied, the time of application, and the name of the person operating the water truck will be recorded in the log

Additional water applications will be performed as needed, based on Employee Observations.

- ii. Sweeping of designated heavy traffic area will occur at least every other day, or as needed, based on daily observations. Operation of the sweeper will be documented in a sweeping log that will identify the area(s) swept, the date/time sweeping was performed and the name of the person operating the sweeper.
- iii. Rumble strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

3.8 Unpaved Areas

Limited areas within the Facility that are not paved with concrete or asphalt are covered with compacted slag or asphalt grindings. Fugitive particulate emissions from unpaved areas are associated with vehicle use.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. Heavily used areas will be observed three times per day and lightly used areas will be observed once per day.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

B. Fugitive Particulate Control Measures:

- i. The water truck will make regular rounds in designated heavy use areas. Use of the water truck will be documented on a daily log. The area(s) where water is applied, the approximate amount of water applied, the time of application, and the name of the person operating the water truck will be recorded in a log.

Additional water applications will be performed as needed, based on Employee Observations.

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4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

The following provides an additional description of the BMPs that will be implemented under this Program.

4.1 Periodic Visible Emissions Observations

As described in Section 3, designated trained personnel will make periodic observations three times per day for the presence of Visible Emissions and have the authority to implement fugitive particulate control measures as may be required. Observations will be made three times per day

Records of observations and dust control measures implemented (if any), are recorded on a VEOC form (see Section 5.2).

4.1.1 Employee Observations

In addition to the designated observations described above, other employees will be trained to identify Visible Emissions when performing their assigned duties. If Visible Emissions are identified, the employee will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures. Employee Observations will not be recorded on a VEOC form.

4.2 Meteorological Data Station

An onsite meteorological data station (met station) will be installed and operated to record hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts. The met station will be centrally located at a minimum height pursuant to applicable USEPA protocols and guidance. Met data will be periodically downloaded and stored electronically at the Facility.

4.3 Dust Boss

Dust Bosses are water atomizing cannons like those pictured to the right. The barrel of the cannon is equipped with a fan to force air through the barrel of the cannon at an elevated velocity. Water is injected into the air stream at the discharge of the barrel through specially designed atomizing nozzles. The velocity of the air stream directs the water droplets toward the source of the fugitive particulate matter. Water droplets impact suspended particulate,



increasing the density of the particulate matter causing it to settle to the ground via gravity. Dust Bosses are used to control fugitive particulate emissions from conveyors, stockpiles and roadways.

The cloud of atomized water above a particulate emission source may be mistaken for particulate matter by uninformed observers. The cloud of water droplets should not be read as particulate matter if crossing the property line. Dust Bosses can be located at ground level, building rooftops or on supported columns in order to distribute the atomized water over the desired area(s). Figure 4-1 identifies the anticipated location of Dust Bosses. The deployment of Dust Bosses will be modified as may be required based on Facility operating experience.

4.4 Paved and Unpaved Areas

Paved and unpaved areas (including traffic routes) are routinely treated using water application and sweeping unless observed pavement conditions indicate it is unnecessary, such as following a precipitation event.

Application of water will be limited by freezing temperatures in order to maintain safe operating conditions.

4.4.1 Water Truck for Paved and Unpaved Areas

A water truck owned and operated by GIII will be used to periodically apply water to accessible paved and unpaved areas. The water truck will make routine rounds in the areas identified in Figure 4-2. Application of water to paved and unpaved areas will be documented on a log.

4.4.2 Sweeper for Paved Areas

A motorized sweeper owned and operated by GIII will be used to periodically sweep paved areas. The sweeper will make routine rounds approximately every other day in accessible areas.

Routine sweeping of paved areas will be supplemented by additional sweeping as indicated by Visible Emissions observations described in Section 4.1.

Sweeping of paved areas will be documented in a log.

4.4.3 Wheel Cleaning Station

Rumble strips will be installed on the approach to the outbound truck scale requiring large vehicles to pass over the control device before entering the scale. The purpose of the rumble strips is to reduce the amount of loose dirt and debris on truck and trailer tires to reduce potential for vehicle track out.

The wheel cleaning station will be routinely inspected, and accumulated material removed on a regular basis to ensure effective operation of the cleaning station.

4.5 Other Fugitive Particulate Control Measures

The following identifies other fugitive particulate control measures that will be implemented at this Facility.

4.5.1 Shredder Water Injection

The shredder will be equipped with water injection as a mitigation measure for deflagrations in the shredder. Water injected into the shredder flashes steam and fills the voids in the shredder body displacing oxygen in ambient air. Removal of oxygen from the shredder will reduce the potential for deflagrations. Although it is not used as a control measure, wetting the material in the shredder has a secondary effect of minimizing the potential for fugitive particulate emissions from the shredder material discharge conveyor and other downstream conveyors.

The shredder operator will adjust the water injection rate as indicated by the rate, type and characteristics of the material being processed. Adjustments to the shredder water injection rate are part of routine shredder operation and will not be recorded under this Program.

4.5.2 Shredder Emission Control System

The shredder emission control system consists of an emissions collection hood, cyclone for removal of large pieces of solid matter, a roll media filter for particulate control, and a regenerative thermal oxidizer and packed tower scrubber. Potential particulate emissions from the shredder emission control system are not fugitive emissions, because the shredder emission control system is assigned a permitted emission rate, and is subject to specific opacity and mass emission limits identified in the Facility construction/operation permit.

4.5.3 Non-Ferrous Processing Building Baghouse

Potential particulate emissions from the equipment located in the Non-Ferrous Processing Building are collected and controlled by four identical cartridge style baghouses. Three of the baghouses collect particulate emissions from various dust pickup points in the process, remove entrained particulate, and exhaust treated air back into the building. There are no emissions to the atmosphere from the three baghouses that exhaust back into the building. The fourth baghouse collects particulate emissions from various dust pickup points in the process, removes entrained particulate and exhausts treated air to the outside atmosphere.

Particulate emissions from the baghouse that exhausts to the outside atmosphere are not considered fugitive emissions because the dust collector is assigned a permitted emission rate and is subject to specific opacity and mass emission limits identified in the facility construction/operation permits.

Fine particulate matter removed by the baghouses is collected in sealed hoppers and periodically conveyed to the Non-Ferrous waste material stockpile via covered conveyor.

4.5.4 Conveyor Covers

Select conveyors will be equipped with covers to minimize the potential for windblown fugitive particulate.

4.6 Maintenance of Fugitive Particulate Control Equipment

Maintenance of equipment used for fugitive particulate control, including Dust Bosses, water truck and sweeper, is performed by on-site personnel in accordance with manufacturers recommendations.



5.0 RECORDKEEPING

It should be noted that the description of the information to be captured in the forms described herein are considered preliminary. This Program will be updated to reflect as-built conditions.

The following records will be maintained pursuant to this Program.

5.1 Meteorological Data

Meteorological data will be recorded and maintained electronically on site. Data will include hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts.

5.2 Visible Emissions Observation and Control Form

A Visible Emissions Observation and Control (VEOC) Form will be used to record the results of routine Visible Emissions observations and corresponding control measures applied. Employee Observations will not be recorded.

The VEOC form will include the following information:

- Date/Time
- Name of Observer
- Area(s) Observed
 - Time of Observation
 - Visible Emissions Observed – Yes/No
 - > Approximate migration distance from source (ft)
 - Controls Required (Yes/No)
 - > If Yes identify Control(s) Implemented

The VEOC form is not attached to this document and will be included in an amended program that will reflect as-built site conditions.

5.3 Water Truck Log

A log of water truck use will be maintained by the operator to record water applications to paved and unpaved areas. This log will include:

- Date/Time
- Name of Water Truck Operator
- Area(s) of Water Application
 - Time of Application

- Approximate Amount of Water Applied (gallons)

5.4 Sweeper Log

A log of sweeper operation will be maintained by the operator to record sweeping events. This form will include:

- Date/Time
- Name of Sweeper Operator
- Area(s) Swept
 - Time of Sweeping

5.5 Fugitive Particulate Control Equipment Maintenance

Records of maintenance performed on fugitive particulate control equipment will be maintained by Facility personnel.



6.0 PROGRAM AMENDMENT

This Fugitive Particulate Operating Program shall be amended from time to time so that the operating program is current. Program amendments will be submitted to the Illinois EPA within thirty (30) days of such amendment. Any future revision to this Program made by GIII is automatically incorporated by reference as an enforceable condition of the Facility construction/operation permit, unless it is expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies GIII of a deficiency with any revision to the Program, GIII will revise and re-submit the Fugitive Particulate Operating Program within thirty (30) days of receipt of notification to address the deficiency.

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Fugitive Particulate Operating Program

**General III, LLC
11600 South Burley
Chicago, Illinois 60614**

November 15, 2019

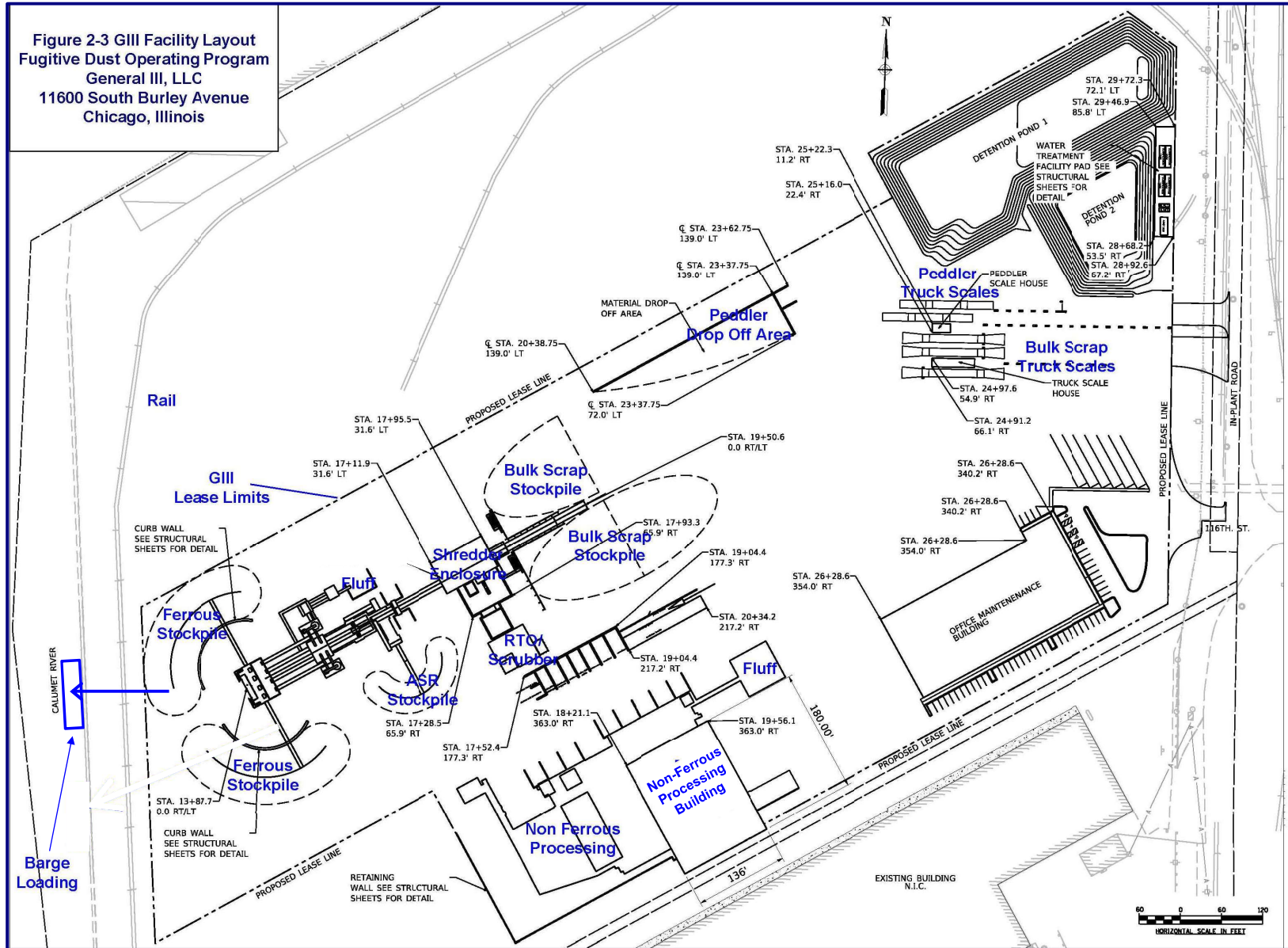
FIGURES

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Figure 2-3 GIII Facility Layout
Fugitive Dust Operating Program
General III, LLC
11600 South Burley Avenue
Chicago, Illinois



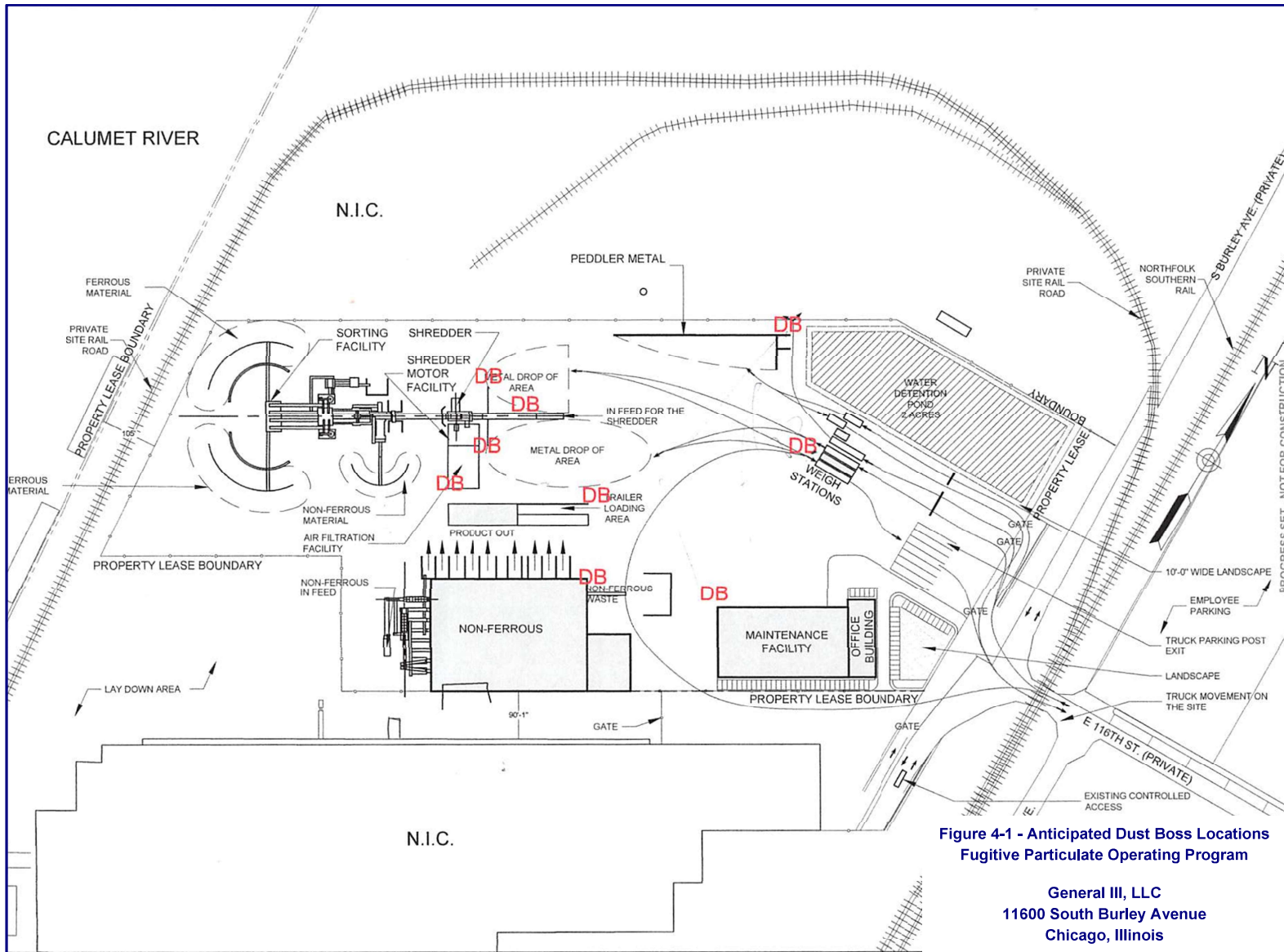
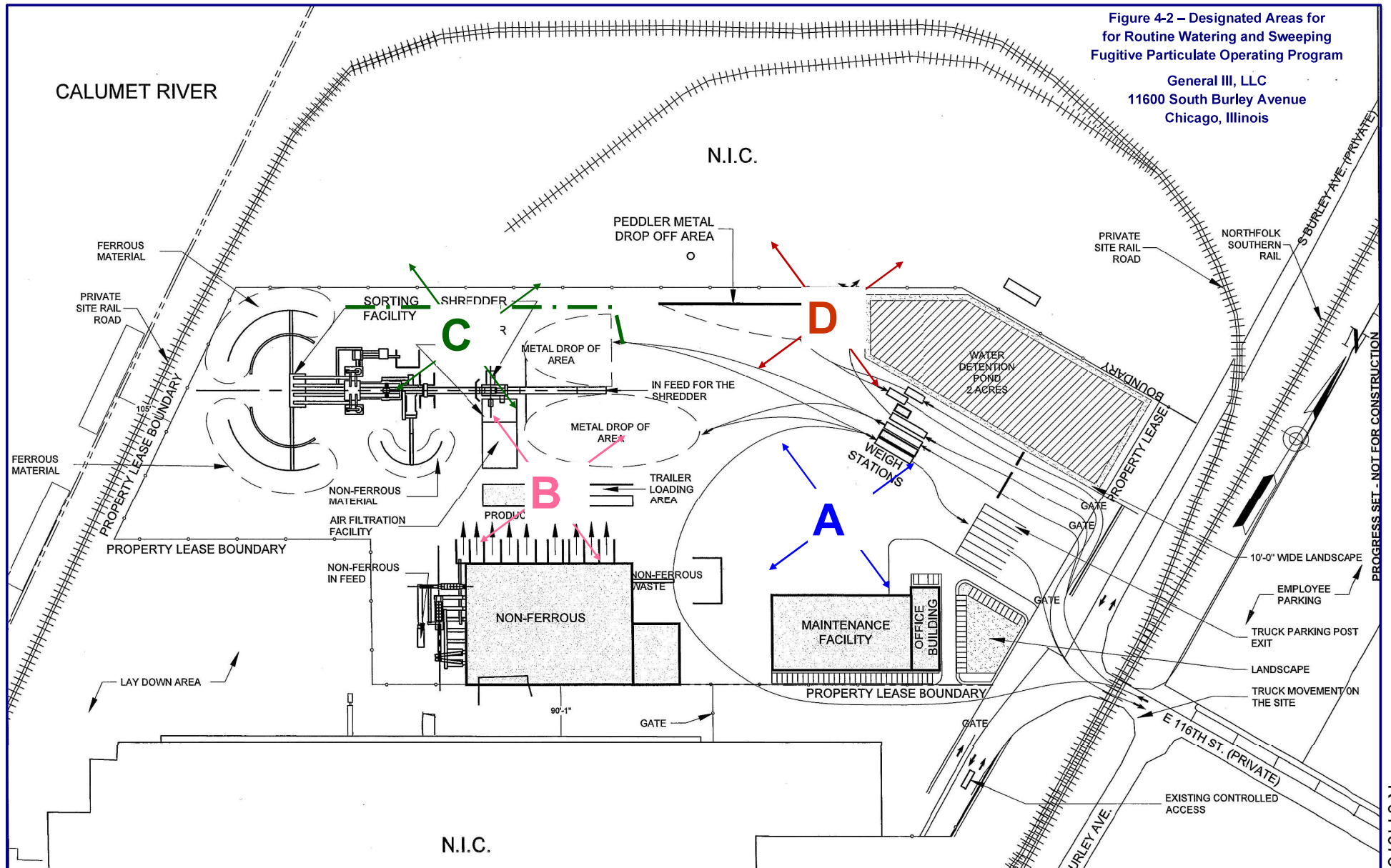


Figure 4-2 – Designated Areas for
for Routine Watering and Sweeping
Fugitive Particulate Operating Program

General III, LLC
11600 South Burley Avenue
Chicago, Illinois



PROGRESS SET - NOT FOR CONSTRUCTION

R 011078

Layman, Robb

From: Jones, Eric E.
Sent: Tuesday, November 19, 2019 7:03 PM
To: John Pinion; Barria, German; Bernoteit, Bob
Cc: 'Freeborn & Peters LLP; Zwick, Ann (azwick@freeborn.com)'; GII, LLC; Kallas, Jim (jimkallas@general-iron.com)
Subject: RE: General III Fugitive Particulate Operating Program
Attachments: 2019-11-15 GIII Fugitive Dust Operating Program_EEJ comments.docx

Attached are my comments, questions, and suggestions. Please call me if you have any questions or would care to discuss any of my comments on this plan however, it should be noted that will be out of the office for the next two days.

Thank you

Eric E. Jones
 Bureau of Air/Office of Air Pollution Control/ Permit Section
 217/558-1264

Eric.E.Jones@Illinois.gov



From: John Pinion <jpinion@rka-inc.com>
Sent: Monday, November 18, 2019 2:57 PM
To: Jones, Eric E. <Eric.E.Jones@Illinois.gov>; Barria, German <German.Barria@Illinois.gov>; Bernoteit, Bob <Bob.Bernoteit@Illinois.gov>
Cc: 'Freeborn & Peters LLP; Zwick, Ann (azwick@freeborn.com)' <azwick@freeborn.com>; GII, LLC; Kallas, Jim (jimkallas@general-iron.com) <jimkallas@general-iron.com>
Subject: [External] RE: General III Fugitive Particulate Operating Program



Eric,

Please see attached.

If you have any questions, please do not hesitate to contact me.

Regards,

John Pinion

RK & Associates, Inc.
 2 South 631 Route 59, Suite B
 Warrenville, Illinois 60555
 Phone: 630-393-9000 x 208
 Fax: 630-393-9111
 Cell: 630-917-1455
 E-mail: jpinion@rka-inc.com

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From: Jones, Eric E. <Eric.E.Jones@Illinois.gov>
Sent: Monday, November 18, 2019 12:41 PM
To: John Pinion <jpinion@rka-inc.com>; Barria, German <German.Barria@Illinois.gov>; Bernoteit, Bob <Bob.Bernoteit@Illinois.gov>
Cc: 'Freeborn & Peters LLP; Zwick, Ann (azwick@freeborn.com)' <azwick@freeborn.com>; GII, LLC; Kallas, Jim (jimkallas@general-iron.com) <jimkallas@general-iron.com>
Subject: RE: General III Fugitive Particulate Operating Program

John,

Could I please get a word version of the plan? It is easier to redline.

From: John Pinion <jpinion@rka-inc.com>
Sent: Friday, November 15, 2019 4:20 PM
To: Jones, Eric E. <Eric.E.Jones@Illinois.gov>; Barria, German <German.Barria@Illinois.gov>; Bernoteit, Bob <Bob.Bernoteit@Illinois.gov>
Cc: 'Freeborn & Peters LLP; Zwick, Ann (azwick@freeborn.com)' <azwick@freeborn.com>; GII, LLC; Kallas, Jim (jimkallas@general-iron.com) <jimkallas@general-iron.com>
Subject: [External] General III Fugitive Particulate Operating Program



Please find attached a copy of the Fugitive Particulate Operating Program for General III's propose scrap metal recycling facility to be located at 11600 South Burley Avenue in Chicago.

Please review the attached document and forward your comments and questions to my attention and/or to Jim Kallas of GIII (e-mail address above).

Hard copies have been sent to Eric Jones and German Barria for delivery on Monday November 18, 2019.

Thank you.

If you have any questions, please do not hesitate to contact me.

Regards,
John Pinion

RK & Associates, Inc.
2 South 631 Route 59, Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000 x 208
Fax: 630-393-9111
Cell: 630-917-1455
E-mail: jpinion@rka-inc.com

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November 15, 2019

R17421-7.2

Mr. Eric Jones
Illinois Environmental Protection Agency - Bureau of Air
1021 North Grand Avenue East
Springfield, IL 62702

**Fugitive Particulate Operating Program for a
Scrap Metal Recycling Facility
General III, LLC – 11600 South Burley - Chicago, Illinois**

Dear Mr. Jones:

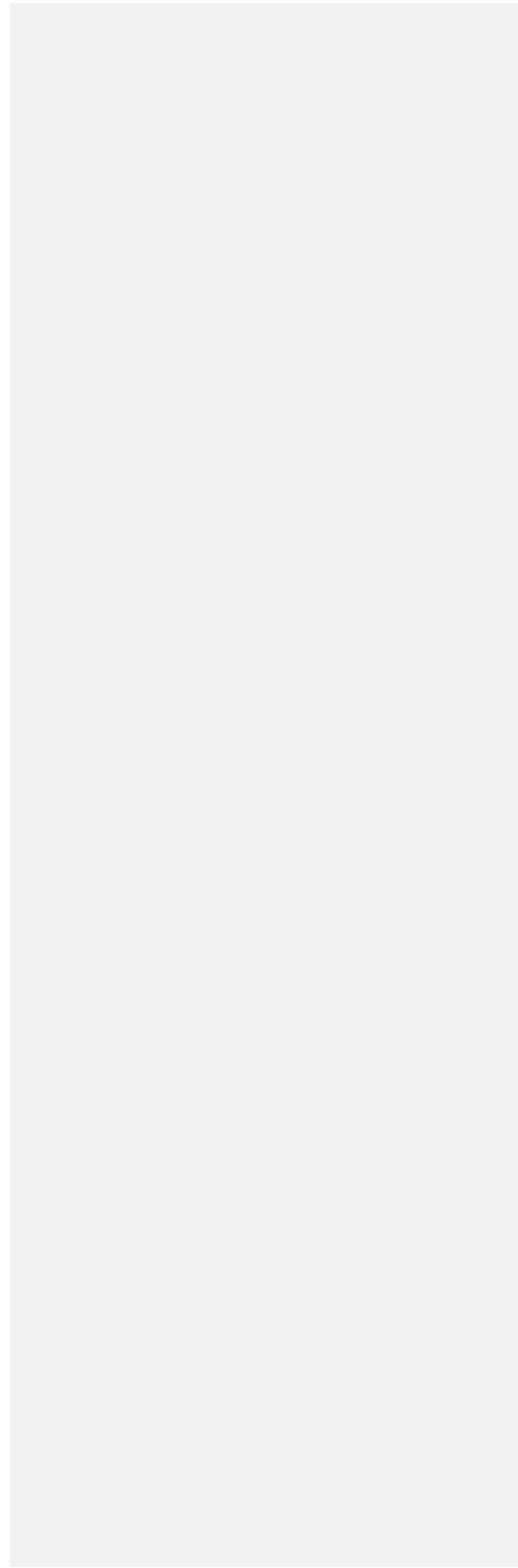
Please find attached a copy of the Fugitive Particulate Operating Program for the proposed General III, LLC (GIII) Scrap Metal Recycling Facility located in Cook County at 11600 South Burley Avenue in Chicago, Illinois. An electronic copy of the above referenced document has also been forwarded to you and Mr. Barria.

If you have any questions or need any additional information, please don't hesitate to contact us at 630-393-9000.

Yours very truly,
RK & Associates

A handwritten signature in black ink, appearing to read "John M. Barria", is written over a horizontal line.

cc: Mr. Jim Kallas – General III, LLC – Chicago, Illinois (via e-mail)
German Barria – IEPA – Springfield, Illinois (hard copy and via-e-mail)



**Fugitive Particulate Operating Program
General III, LLC – 11600 S Burley Avenue - Chicago, Illinois
November 15, 2019**

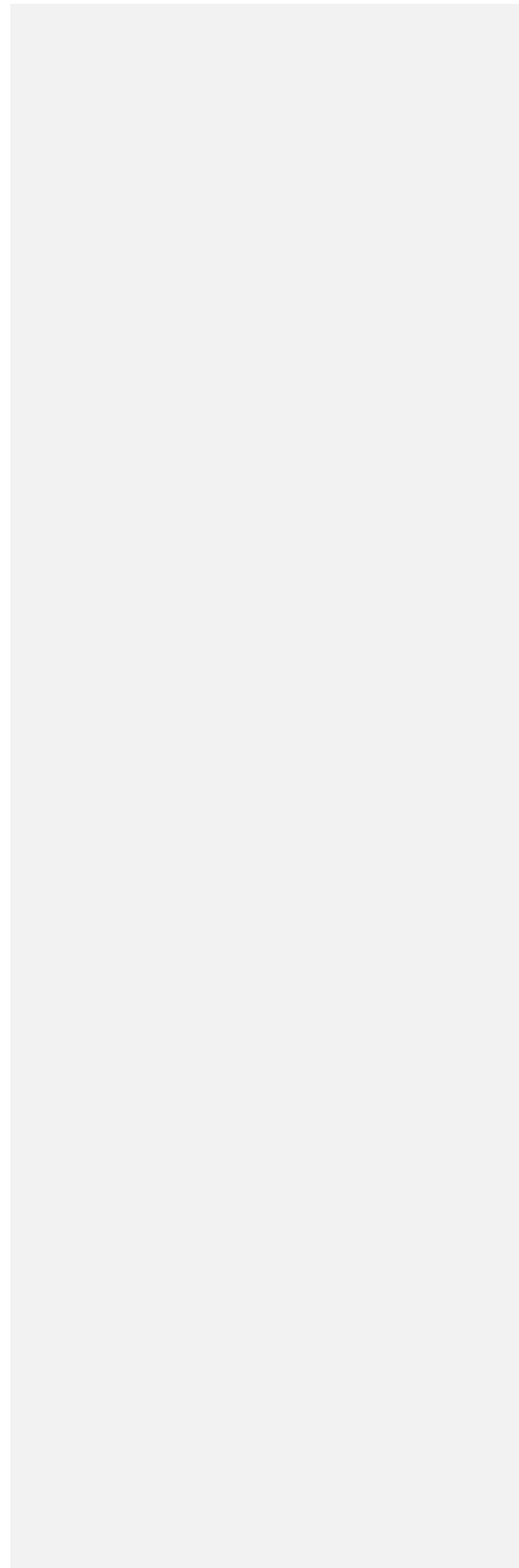
R17421-7.2

***Prepared for:*
General III, LLC
1909 North Clifton Avenue
Chicago, Illinois 60614
Attn: Mr. Jim Kallas**

***Prepared by:*
John G. Pinion
Principal Engineer
RK & Associates, Inc.**



**2 South 631 Route 59
Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000
Fax: 630-393-9111**





General III, LLC
Fugitive Particulate Operating Program

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Facility Location and Contact Information	1
1.2 Illinois Environmental Protection Agency Fugitive Emission Regulatory Requirements	2
1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301	2
1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program	2
1.3 Definition of Visible Emissions	2
1.4 Site Boundaries	2
2.0 FACILITY SITE MAP	3
3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL	5
3.1 Raw Material Unloading/Handling	6
3.2 Shredder Enclosure	7
3.3 Material Transfer Points	8
3.4 Material Stockpiles.....	8
3.5 Non Ferrous Processing Building	9
3.6 Material Loadout	10
3.7 Paved Areas	10
3.8 Unpaved Areas	11
4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL	13
4.1 Periodic Visible Emissions Observations	13
4.1.1 Employee Observations	13
4.2 Meteorological Data Station	13
4.3 Dust Boss	14
4.4 Paved and Unpaved Areas	14
4.4.1 Water Truck for Paved and Unpaved Areas	14
4.4.2 Sweeper for Paved Areas	14
4.4.3 Wheel Cleaning Station	15
4.5 Other Fugitive Particulate Control Measures	15



Table of Contents

4.5.1 Shredder Water Injection	15
4.5.2 Shredder Emission Control System	15
4.5.3 Non-Ferrous Building Baghouse	16
4.5.4 Conveyor Covers	16
4.5.5 ions	16
4.6 Maintenance of Fugitive Particulate Control Equipment	16
5.0 RECORDKEEPING	17
5.1 Meteorological Data	17
5.2 Visible Emissions Observation and Control Form	17
5.3 Water Truck Log	17
5.4 Sweeper Log	18
5.5 Fugitive Particulate Control Equipment Maintenance	18
6.0 PROGRAM AMENDMENT	19
 TABLES	
Table 3-1 Summary of Facility Operations and Best Management Practices for Fugitive Dust Control	6
 FIGURES	
Figure 2-1 Facility Location Map	
Figure 2-2 Facility Layout Map	
Figure 2-3 Facility Layout Drawing	
Figure 4-1 Anticipated Dust Boss Locations	
Figure 4-2 Designated Areas for Routine Watering and Sweeping	



1.0 INTRODUCTION

This Fugitive Particulate Operating Program (Program) has been prepared for the General III, LLC (GIII) scrap metal recycling facility as a condition of Illinois Environmental Protection Agency (IEPA) Construction Permit No. 19090021 (Condition 9.e.).

GIII is a state-of-the-art recycling facility located in the heart of an existing established industrial district well buffered from residential areas. GIII is configured to process 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. GIII will receive and shred mixed recyclable metal in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, and shipment of finished products to customers.

The objective of this Program is to identify, monitor, and treat (as may be necessary) sources of fugitive particulate emissions. GIII is implementing this Program as part of GIII's commitment to be a good neighbor, a good steward of the environment, and to meet or exceed applicable environmental standards (identified in Section 1.2) to be protective of human health and the environment.

1.1 Facility Location and Contact Information

<u>Business Name:</u>	General III, LLC
<u>Source Location:</u>	11600 South Burley – Chicago, Illinois 60617 Hyde Park Township, Cook County Illinois
<u>Latitude/Longitude</u>	41.685201° N / -87.545847° W – Approximate Location of Front Gate
<u>Office/Mailing Address:</u>	1909 N. Clifton Avenue – Chicago, Illinois 60614
<u>Authorized Representative Responsible for this Program:</u>	Mr. Jim Kallas - Environmental Manager 847-508-9170 – jimkallas@general-iron.com
<u>IEPA Site ID No.:</u>	031600SFX
<u>SIC Code:</u>	5093 – Scrap and Waste Materials
<u>NAICS Code:</u>	423930 – Recyclable Material Merchant Wholesalers



Introduction

1.2 Illinois Environmental Protection Agency – Fugitive Emission Regulatory Requirements

1.2.1 General Limitation for Fugitive Particulate Matter - 35 IAC 212.301

GIII is subject to the general limitation for fugitive particulate matter identified in 35 IAC 212.301, which requires that:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program

Pursuant to 35 IAC 212.302, a Fugitive Particulate Operating Program is required for any facility with operations belonging to specified groups of Standard Industrial Classification (SIC) Codes **and** that are located within a specified area. GIII is located in Cook County, which is a specified area under 35 IAC 212.302; however, GIII's SIC Code (5093 Scrap and Waste Materials) is **not** among the specified SIC codes. Therefore, GIII is not subject to a requirement to have a Fugitive Particulate Operating Program.

Although not required by IEPA regulations, GIII has voluntarily agreed to prepare and implement this Fugitive Particulate Operating Program to describe the best management practices that will be used to minimize potential fugitive particulate emissions and ensure compliance with 35 IAC 212.301.

1.3 Definition of Visible Emissions

For the purposes of this Program, the presence of Visible Emissions means the existence of a visible fugitive particulate plume that threatens to cross the Industrial Campus property line.

Fugitive particulate does not include steam (water vapor), engine combustion exhaust, and particulate matter emitted from a properly permitted exhaust stacks with or without a pollution control device because each permitted exhaust point has a separate opacity limit and particulate mass emission limit included in the facility construction/operation permit.

1.4 Site Boundaries

For the purposes of this Program, the 'property line,' as referenced in 35 IAC 212.301, is the Site Boundary identified in Figure 2-2 (i.e. property line of the industrial campus).



2.0 FACILITY SITE MAP

The location of GIII is shown on Figures 2-1 and 2-2. GIII operates on approximately 25 acres of leased property within an existing industrial campus located at 11600 South Burley Avenue in Chicago, Illinois. Four other affiliated material recycling businesses are located within the industrial campus.

The GIII scrap metal recycling facility is shown on Figure 2-3. The Facility Site Map indicates the locations of the Facility boundaries, buildings, location of material handling and processing areas, shredder enclosure, shredder emission control system, stockpiles, truck scales and facility vehicle entrance.

The vast majority of the Facility is paved with concrete or asphalt pavement. The limited area that is not paved is covered with compacted slag or asphalt grindings.



Facility Site Map

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3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

GIII is a state-of-the-art recycling facility located in the heart of an existing established industrial district well buffered from residential areas. GIII is configured to process up to 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, stockpiling and off-site shipment of finished products.

Raw materials are delivered to the facility from a variety of sources including retail, commercial/industrial accounts via trucks or contract haulers and peddlers via peddler vehicles. Peddlers and semi-trucks entering the facility first pass through a truck scale.

Semi-trucks are then directed to a material staging area near the raw material stockpiles. Designated Facility personnel inspect all loads for unauthorized materials in accordance with Facility procedures. After unloading, the semi-trucks and peddler vehicles exit the Facility after passing over the appropriate truck scale.

The shredding process produces ferrous metal and Automobile Shredder Residue (ASR) which contains non-metallic material, non-ferrous metal and a limited amount of ferrous metal. Ferrous metal is processed to remove non-metallic material through a series of material handling steps in the Ferrous Metal Processing system to produce clean ferrous metal.

The ASR is directed to a stockpile for temporary storage prior to processing. ASR is transferred a short distance from the ASR stockpile to the Non-Ferrous Metal Processing system using a rubber-tired loader. ASR is processed by a variety of advanced material handling and separation equipment in the Non-Ferrous Metal Processing system to recover various sizes and grades of non-ferrous metals. Non-metallic material removed by the Non-Ferrous Metal Processing system is directed to a stockpile prior to being loaded into semi-trucks for off-site disposal at an appropriately licensed landfill.

Table 1 summarizes facility operations with the potential to generate fugitive particulate and the Best Management Practices (BMPs) that will be utilized to achieve compliance with 35 IAC 212.301. For the purposes of this Program, compliance with 35 IAC 212.301 is determined at the Site Boundary (i.e. the



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

property line of the industrial campus as shown on Figure 2-2). Detailed descriptions of the BMPs are presented in Section 4.0.

Table 1 – Summary of Facility Operations and Best Management Practices for Fugitive Particulate Control

Operation	Best Management Practices				
	Periodic Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Potential Additional BMPs That May Be Used
Raw Material Unloading/Handling	X	X	X		
Shredder Enclosure	X				Water injection/shredder emissions capture and control system
Material Transfer Points	X	X			Conveyor covers on selected conveyors
Material Stockpiles	X	X	X		Partial enclosures (side walls) on selected stockpiles
Non Ferrous Processing Building					Enclosed in a building with building exhaust treated by dust collectors
Material Loadout	X	X	X		Dedicated water spray if needed
Traffic Areas – Paved Areas	X	X	X		Water truck as needed
Traffic Areas – Unpaved Areas	X	X		X	Water truck as needed
Property Lines	X				Identify the source(s) of visible emissions and take corrective actions as described above. If the is not identified above, develop a plan to prevent the violation in the future.

3.1 Raw Material Unloading/Handling

Raw scrap in bulk trucks (semi-trailers) is dumped on the ground near the shredder infeed conveyor where cranes equipped with magnets or grapples sort through the material and place it on a raw material



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

stockpile or onto the shredder infeed conveyor of the shredder. These or other cranes equipped with magnets or grapples then transfer the material from the stockpiles to the shredder infeed conveyor.

The following BMPs will be used to identify and control (as needed) Visible Emissions from raw material unloading and handling.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the raw material unloading and handling areas for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

Commented [JEE1]: Is this necessary? You make the statement is made above in (i).

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized as needed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. Areas adjacent to raw material handling operations will be included in the watering and sweeping of paved areas described in Section 3.7.

Commented [JEE2]: Should mention or describe how the raw material is temporarily stored as it processed quickly. So raw material piles do not need regular applications of treatments. However, if a raw material pile were to remain for a "long" period time a treatment should be applied.

3.2 Shredder Enclosure

The shredder is located in a partial enclosure with solid wall panels, open metal grating on the roof and an open area at ground level. Shredder emissions are captured by a hood located over the top of the shredder. Captured emissions are routed to the emission control system. Captured emissions are not fugitive emissions.

Potential sources of fugitive emissions inside the shredder enclosure are limited to three conveyor transfer points and potential uncaptured emissions from the shredder operation.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the shredder enclosure for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

Commented [JEE3]: Is this necessary? You make the statement is made above in (i).



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

B. Fugitive Particulate Control Measures:

- i. If Visible Emissions are observed exiting the shredder enclosure, operators will perform a system inspection to identify the potential source and cause of the Visible Emissions and take appropriate corrective actions, which may include a change in the shredder water injection rate or shredder emissions capture and control system operating parameters.

3.3 Material Transfer Points

Material is primarily transported through the Ferrous and Non-Ferrous processes on a series of belt conveyors. A material transfer point is the point at which material from an upstream conveyor is transferred to a downstream conveyor, the point at which an upstream conveyor feeds a piece of processing equipment, or the point at which a piece of processing equipment discharges material onto a takeaway conveyor. Visible Emissions from a transfer point may occur when the material being transferred has a high concentration of fine material and low moisture content.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

Commented [JEE4]: Is this necessary? You make the statement is made above in (i).

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the facility areas with the highest potential for fugitive particulate. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. Conveyor Covers are installed on select conveyors.

Commented [JEE5]: Why would some have a cover and other would not? Probably need to define why this is the case.

3.4 Material Stockpiles

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material stockpiles for the presence of Visible Emissions three times per day and record the results on a VEOC form. If



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. The majority of stockpiles will have solid partitions on three sides.
- iii. Areas adjacent to stockpiles will be included in the watering and sweeping of paved areas described in Sections 3.7.

Commented [JEE6]: Should mention or describe how the material is temporarily stored as it processed quickly. So material piles do not don't need regular applications of treatments. However, if a material pile were to remain for a "long" period time a treatment should be applied.

Commented [JEE7]: Is this necessary? You make the statement is made above in (i).

Commented [JEE8]: How many and why some and not others?

3.5 Non-Ferrous Processing Building

Non-Ferrous material processing is performed in the Non-Ferrous Processing Building. The building is equipped with four identical baghouses that collect dust from specific points in the process using a network of duct work and hoods. Dust captured in the collection system is routed to a baghouse filter. Treated air from three of the four baghouses is exhausted back into the building. The treated air from the fourth baghouse is discharged to the atmosphere. Particulate emissions in the baghouse exhaust stream that is discharged to the atmosphere are not fugitive emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of conveyor wall openings, personnel doors, and other openings in the Non-Ferrous Processing Building for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

Commented [JEE9]: Is this necessary? You make the statement is made above in (i).

B. Fugitive Particulate Control Measures:

- i. If Visible Emissions are observed from the building openings, the building will be inspected to ensure that personnel and service doors are closed when not in use and that the baghouses are functioning properly. Material removed by the baghouses is collected on a covered conveyor and transferred to the waste material stockpile.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

3.6 Material Loadout

Material loadout occurs when stockpiled material is transferred to trucks using a rubber-tired loader, or material handler.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material loadout areas for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager.

Commented [JEE10]: Is this necessary? You make the statement is made above in (i).

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles and adjacent loadout areas if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material to minimize the potential for Visible Emissions.
- ii. Areas adjacent to material loadout activity will be included in the watering and sweeping of paved areas described in Sections 3.7.

3.7 Paved Areas

The majority of the facility is paved with concrete or asphalt. The areas with the highest potential for fugitive particulate are the primary traffic routes used by vehicles delivering raw material or transporting materials from the site.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. Heavily traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager who will be responsible for deployment of fugitive particulate control measures.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

B. Fugitive Particulate Control Measures:

- i. The water truck will make daily rounds in designated heavy traffic areas. Use of the water truck will be documented on a daily log. The area(s) where water is applied, the approximate amount of water applied, the time of application, and the name of the person operating the water truck will be recorded in the log

Commented [JEE11]: Need to define frequency.

Additional water applications will be performed as needed, based on Employee Observations.

Commented [JEE12]: Need to replace with what conditions will trigger additional measures. This could be presence of visible emissions from the roadways.

- ii. Sweeping of designated heavy traffic area will occur at least every other day, or as needed, based on daily observations. Operation of the sweeper will be documented in a sweeping log that will identify the area(s) swept, the date/time sweeping was performed and the name of the person operating the sweeper.

Commented [JEE13]: Need to replace with what conditions will trigger additional measures.

- iii. Rumble strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

Commented [JEE14]: Could wheel wash system be installed?

3.8 Unpaved Areas

Limited areas within the Facility that are not paved with concrete or asphalt are covered with compacted slag or asphalt grindings. Fugitive particulate emissions from unpaved areas are associated with vehicle use.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. Heavily used areas will be observed three times per day and lightly used areas will be observed once per day.
- ii. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. The water truck will make regular rounds in designated heavy use areas. Use of the water truck will be documented on a daily log. The area(s) where water is applied, the approximate amount of water applied, the time of application, and the name of the person operating the water truck will be recorded in a log.

Commented [JEE15]: Need to define frequency.

Additional water applications will be performed as needed, based on Employee Observations.

Commented [JEE16]: Need to replace with what conditions will trigger additional measures. This could be presence of visible emissions from the roadways.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

3.9 Property Lines

For the purposes of this Program, the 'property line,' as referenced in 35 IAC 212.301, is the Site Boundary identified in Figure 2-2 (i.e. property line of the industrial campus).

C. Inspections/Observations:

- ii.i. Trained personnel will conduct visual observations at least once per day of each property line of the facility for the presence of Visible Emissions and record the results on a VEOC form. Employee Observations (see Section 4.1.1) will be reported to the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

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4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

The following provides an additional description of the BMPs that will be implemented under this Program.

4.1 Periodic Visible Emissions Observations

As described in Section 3, designated trained personnel will make periodic observations three times per day for the presence of Visible Emissions and have the authority to implement fugitive particulate control measures as may be required. Observations will be made three times per day.

Records of observations and dust control measures implemented (if any), are recorded on a VEOC form (see Section 5.2).

4.1.1 Employee Observations

In addition to the designated observations described above, other employees will be trained to identify Visible Emissions when performing their assigned duties. If Visible Emissions are identified, the employee will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures. Employee Observations will not be recorded on a VEOC form.

4.2 Meteorological Data Station

An onsite meteorological data station (met station) will be installed and operated to record hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts. The met station will be centrally located at a minimum height pursuant to applicable USEPA protocols and guidance. Met data will be periodically downloaded and stored electronically at the Facility.

4.3 Dust Boss

Dust Bosses are water atomizing cannons like those pictured to the right. The barrel of the cannon is equipped with a fan to force air through the barrel of the cannon at an elevated velocity. Water is injected into the air stream at the discharge of the barrel through specially designed atomizing nozzles. The velocity of the air stream directs the water droplets toward the source of the fugitive particulate matter. Water droplets impact suspended particulate,





Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

increasing the density of the particulate matter causing it to settle to the ground via gravity. Dust Bosses are used to control fugitive particulate emissions from conveyors, stockpiles and roadways.

The cloud of atomized water above a particulate emission source may be mistaken for particulate matter by uninformed observers. The cloud of water droplets should not be read as particulate matter if crossing the property line. Dust Bosses can be located at ground level, building rooftops or on supported columns in order to distribute the atomized water over the desired area(s). Figure 4-1 identifies the anticipated location of Dust Bosses. The deployment of Dust Bosses will be modified as may be required based on Facility operating experience.

4.4 Paved and Unpaved Areas

Paved and unpaved areas (including traffic routes) are routinely treated using water application and sweeping unless observed pavement conditions indicate it is unnecessary, such as following a precipitation event.

Application of water will be limited by freezing temperatures in order to maintain safe operating conditions.

4.4.1 Water Truck for Paved and Unpaved Areas

A water truck owned and operated by GIII will be used to periodically apply water to accessible paved and unpaved areas. The water truck will make routine rounds in the areas identified in Figure 4-2. Application of water to paved and unpaved areas will be documented on a log.

4.4.2 Sweeper for Paved Areas

A motorized sweeper owned and operated by GIII will be used to periodically sweep paved areas. The sweeper will make routine rounds approximately every other day in accessible areas.

Routine sweeping of paved areas will be supplemented by additional sweeping as indicated by Visible Emissions observations described in Section 4.1.

Sweeping of paved areas will be documented in a log.

4.4.3 Wheel Cleaning Station

Rumble strips will be installed on the approach to the outbound truck scale requiring large vehicles to pass over the control device before entering the scale. The purpose of the rumble strips is to reduce the amount of loose dirt and debris on truck and trailer tires to reduce potential for vehicle track out.

The wheel cleaning station will be routinely inspected, and accumulated material removed on a regular basis to ensure effective operation of the cleaning station.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

4.5 Other Fugitive Particulate Control Measures

The following identifies other fugitive particulate control measures that will be implemented at this Facility.

4.5.1 Shredder Water Injection

The shredder will be equipped with water injection as a mitigation measure for deflagrations in the shredder. Water injected into the shredder flashes steam and fills the voids in the shredder body displacing oxygen in ambient air. Removal of oxygen from the shredder will reduce the potential for deflagrations. Although it is not used as a control measure, wetting the material in the shredder has a secondary effect of minimizing the potential for fugitive particulate emissions from the shredder material discharge conveyor and other downstream conveyors.

The shredder operator will adjust the water injection rate as indicated by the rate, type and characteristics of the material being processed. Adjustments to the shredder water injection rate are part of routine shredder operation and will not be recorded under this Program.

Commented [JEE17]: This should be noted if it is part of a corrective actions.

4.5.2 Shredder Emission Control System

The shredder emission control system consists of an emissions collection hood, cyclone for removal of large pieces of solid matter, a roll media filter for particulate control, and a regenerative thermal oxidizer and packed tower scrubber. Potential particulate emissions from the shredder emission control system are not fugitive emissions, because the shredder emission control system is assigned a permitted emission rate, and is subject to specific opacity and mass emission limits identified in the Facility construction/operation permit.

4.5.3 Non-Ferrous Processing Building Baghouse

Potential particulate emissions from the equipment located in the Non-Ferrous Processing Building are collected and controlled by four identical cartridge style baghouses. Three of the baghouses collect particulate emissions from various dust pickup points in the process, remove entrained particulate, and exhaust treated air back into the building. There are no emissions to the atmosphere from the three baghouses that exhaust back into the building. The fourth baghouse collects particulate emissions from various dust pickup points in the process, removes entrained particulate and exhausts treated air to the outside atmosphere.

Particulate emissions from the baghouse that exhausts to the outside atmosphere are not considered fugitive emissions because the dust collector is assigned a permitted emission rate and is subject to specific opacity and mass emission limits identified in the facility construction/operation permits.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

Fine particulate matter removed by the baghouses is collected in sealed hoppers and periodically conveyed to the Non-Ferrous waste material stockpile via covered conveyor.

4.5.4 Conveyor Covers

Select conveyors will be equipped with covers to minimize the potential for windblown fugitive particulate.

Commented [JEE18]: Why would some have a cover and other would not? Probably need to define why this is the case.

4.6 Maintenance of Fugitive Particulate Control Equipment

Maintenance of equipment used for fugitive particulate control, including Dust Bosses, water truck and sweeper, is performed by on-site personnel in accordance with manufacturers recommendations.



5.0 RECORDKEEPING

It should be noted that the description of the information to be captured in the forms described herein are considered preliminary. This Program will be updated to reflect as-built conditions.

The following records will be maintained pursuant to this Program [in accordance with permit recordkeeping requirements](#).

5.1 Meteorological Data

Meteorological data will be recorded and maintained electronically on site. Data will include hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts.

5.2 Visible Emissions Observation and Control Form

A Visible Emissions Observation and Control (VEOC) Form will be used to record the results of routine Visible Emissions observations and corresponding control measures applied. Employee Observations will not be recorded.

The VEOC form will include the following information:

- Date/Time
- Name of Observer
- Area(s) Observed
 - Time of Observation
 - Visible Emissions Observed – Yes/No
 - > Approximate migration distance from source (ft)
 - Controls Required (Yes/No)
 - > If Yes identify Control(s) Implemented

The VEOC form is not attached to this document and will be included in an amended program that will reflect as-built site conditions.

5.3 Water Truck Log

A log of water truck use will be maintained by the operator to record water applications to paved and unpaved areas. This log will include:

- Date/Time
- Name of Water Truck Operator
- [Reason for Water Application \(Scheduled or Corrective Actions\)](#)



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

- Area(s) of Water Application
 - Time of Application
 - Approximate Amount of Water Applied (gallons)

5.4 Sweeper Log

A log of sweeper operation will be maintained by the operator to record sweeping events. This form will include:

- Date/Time
- Name of Sweeper Operator
- Reason for Sweeping (Scheduled or Corrective Actions)
- Area(s) Swept
 - Time of Sweeping

5.5 Fugitive Particulate Control Equipment Maintenance

Records of maintenance performed on fugitive particulate control equipment will be maintained by Facility in accordance with permit recordkeeping requirements ~~personnel~~.



6.0 PROGRAM AMENDMENT

This Fugitive Particulate Operating Program shall be amended from time to time so that the operating program is current. Program amendments will be submitted to the Illinois EPA within thirty (30) days of such amendment. Any future revision to this Program made by GIII is automatically incorporated by reference as an enforceable condition of the Facility construction/operation permit, unless it is expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies GIII of a deficiency with any revision to the Program, GIII will revise and re-submit the Fugitive Particulate Operating Program within thirty (30) days of receipt of notification to address the deficiency.



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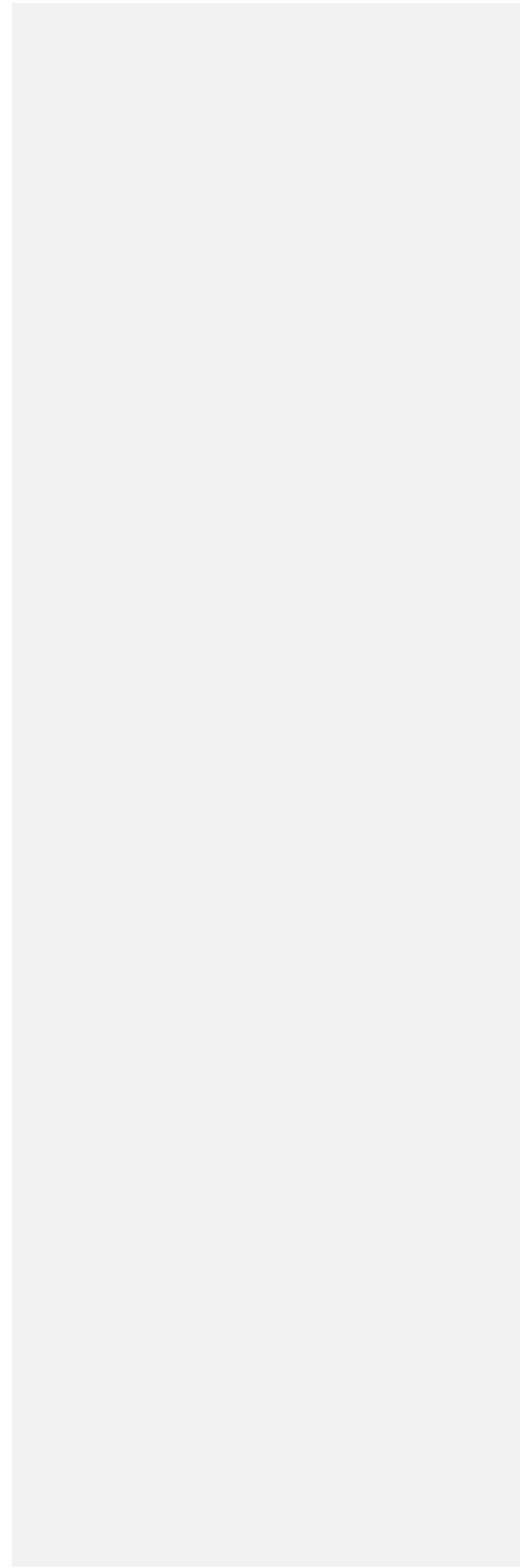
Fugitive Particulate Operating Program

**General III, LLC
11600 South Burley
Chicago, Illinois 60614**

November 15, 2019

FIGURES

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General III, LLC
Fugitive Particulate Operating Program



General III LLC
Chicago, Illinois

Fugitive Particulate Operating Program



General III, LLC
Fugitive Particulate Operating Program



2S631 ROUTE 59, SUITE B
WARRENVILLE, IL 60555
630-393-9000/630-393-9111

COMMENTS:

**Fugitive Particulate
Operating Program**

DRAWN BY:

APPROVED BY:

JGP

Facility Layout Map
General III, LLC
11600 South Burley, Chicago, IL

PROJECT NUMBER:

R19439-7.10

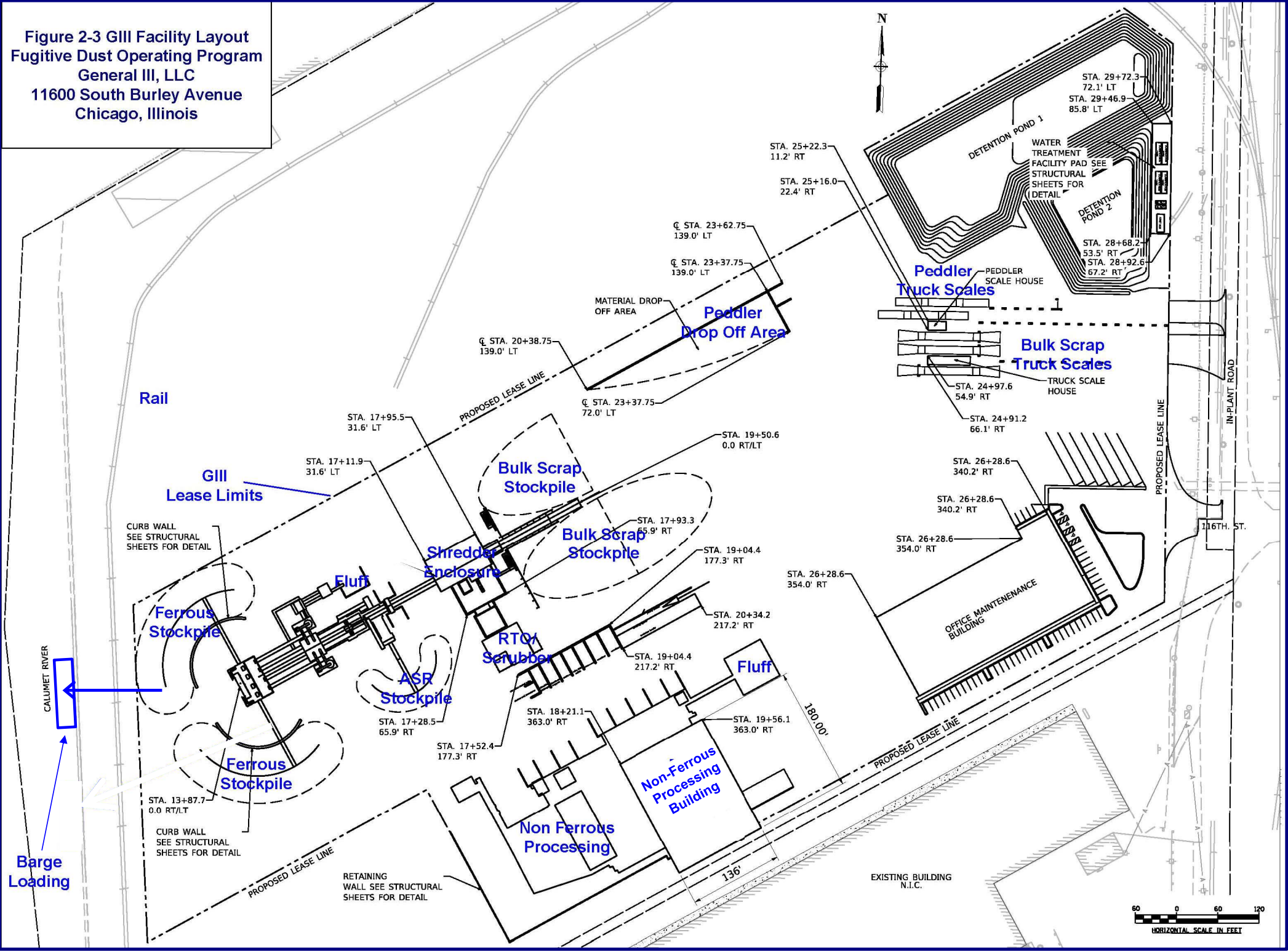
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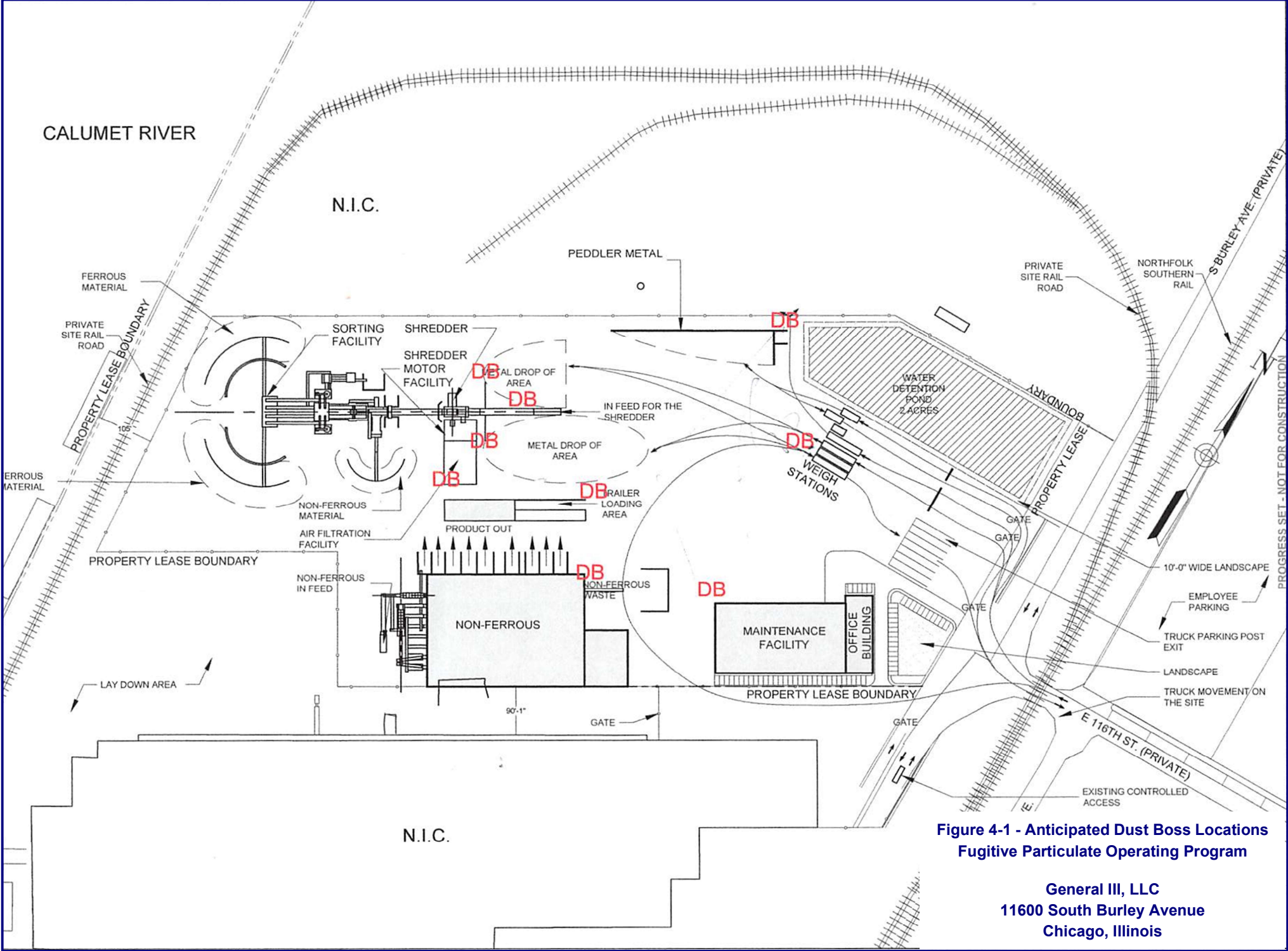
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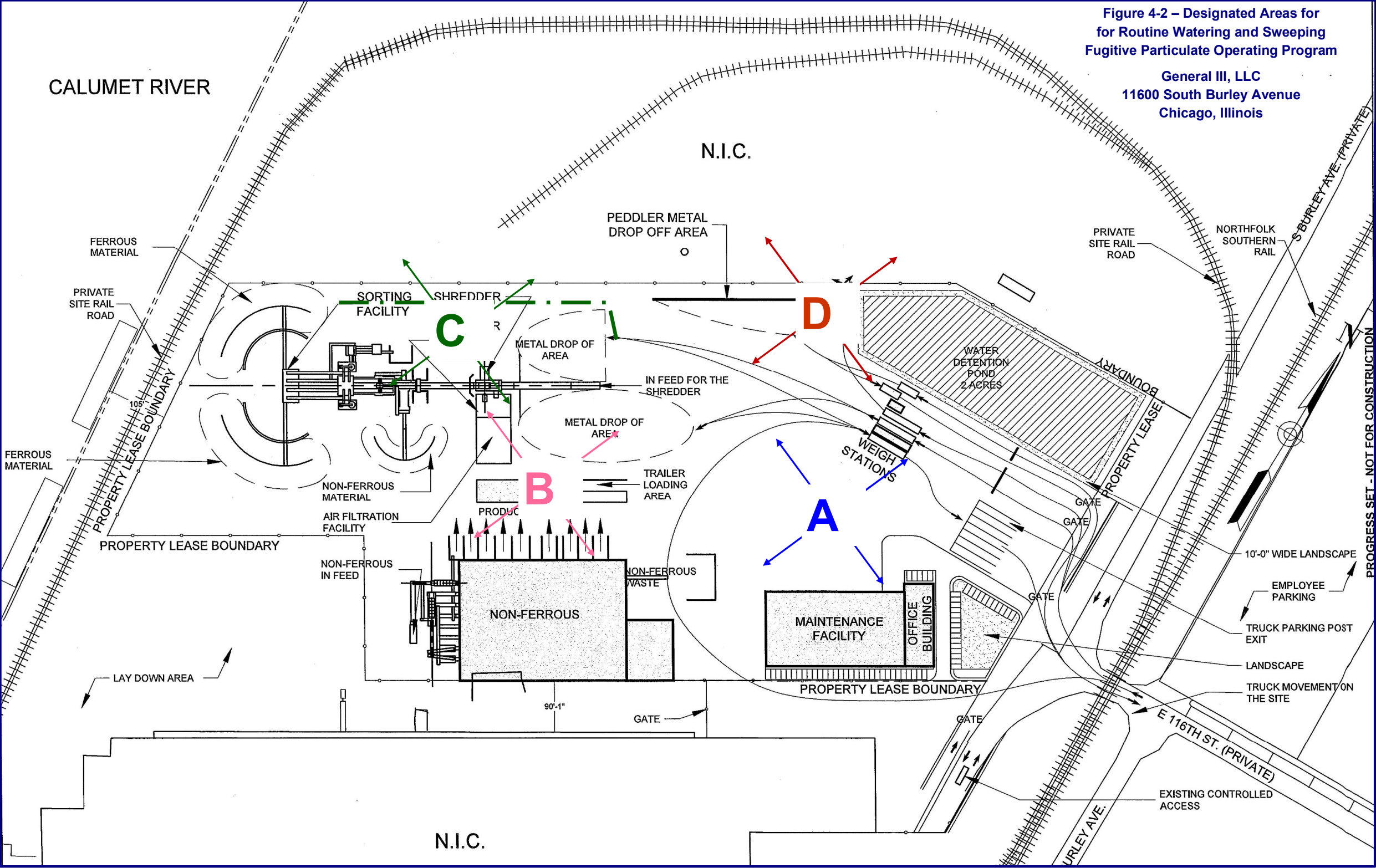
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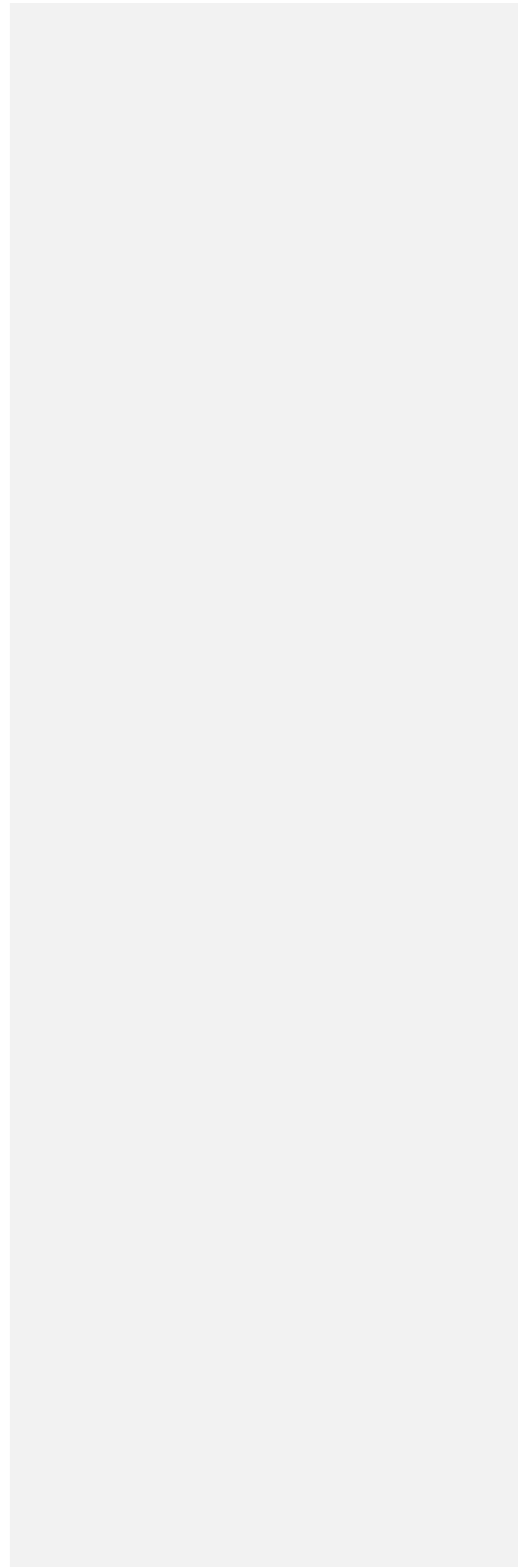
FIGURE

2-2











December 11, 2019

R17421-7.2

Mr. Eric Jones
Illinois Environmental Protection Agency - Bureau of Air
1021 North Grand Avenue East
Springfield, IL 62702

**Fugitive Particulate Operating Program for a
Scrap Metal Recycling Facility
General III, LLC – 11600 South Burley - Chicago, Illinois**

Dear Mr. Jones:

Please find attached a copy of Revision 1 of the Fugitive Particulate Operating Program for the proposed General III, LLC (GIII) Scrap Metal Recycling Facility located in Cook County at 11600 South Burley Avenue in Chicago, Illinois. This revised copy of the Program addresses the comments you provided on the initial Program document and the items we discussed during our recent conversation.

An electronic copy of the above referenced document has also been forwarded to you and Mr. Barria.

If you have any questions or need any additional information, please don't hesitate to contact us at 630-393-9000.

Yours very truly,
RK & Associates

A handwritten signature in cursive script, appearing to read "John G. Pinion".

John G. Pinion
Associate Engineer

cc: Mr. Jim Kallas – General III, LLC – Chicago, Illinois (via e-mail)
Mr. German Barria – IEPA – Springfield, Illinois (hard copy and via-e-mail)

IEPA - DIVISION OF RECORDS MANAGEMENT
RELEASABLE

MAR 13 2020

REVIEWER: JMR

**Fugitive Particulate Operating Program
General III, LLC – 11600 S Burley Avenue - Chicago, Illinois
December 11, 2019**

R17421-7.2

Prepared for:
**General III, LLC
1909 North Clifton Avenue
Chicago, Illinois 60614
Attn: Mr. Jim Kallas**

Prepared by:
**John G. Pinion
Principal Engineer
RK & Associates, Inc.**

RK
& ASSOCIATES, INC.

**2 South 631 Route 59
Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000
Fax: 630-393-9111**



TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Facility Location and Contact Information	1
1.2 Illinois Environmental Protection Agency Fugitive Emission Regulatory Requirements	2
1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301	2
1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program	2
1.3 Definition of Visible Emissions	2
1.4 Site Boundaries	2
2.0 FACILITY SITE MAP	3
3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL	5
3.1 Raw Material Unloading/Handling	6
3.2 Shredder Enclosure	7
3.3 Material Transfer Points	8
3.4 Intermediate and Product Stockpiles	8
3.5 Non-Ferrous Processing Building	9
3.6 Material Loadout	10
3.7 Paved Areas	10
3.8 Unpaved Areas	11
3.9 Downwind Property Line and Barge Loading Area	13
4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL	15
4.1 Periodic Visible Emissions Observations	15
4.1.1 Employee Observations	15
4.2 Meteorological Data Station	15
4.3 Dust Boss	15
4.4 Paved and Unpaved Areas	16
4.4.1 Water Truck for Paved and Unpaved Areas	16
4.4.2 Sweeper for Paved Areas	16
4.4.3 Wheel Cleaning Station	16

4.5 Other Fugitive Particulate Control Measures	17
4.5.1 Shredder Water Injection	17
4.5.2 Shredder Emission Control System	17
4.5.3 Non-Ferrous Building Baghouse	17
4.5.4 Conveyor Covers	18
4.6 Maintenance of Fugitive Particulate Control Equipment	18
5.0 RECORDKEEPING	19
5.1 Meteorological Data	19
5.2 Visible Emissions Observation and Control Form	19
5.3 Water Truck Log	19
5.4 Sweeper Log	20
5.5 Dust Boss Log	20
5.6 Fugitive Particulate Control Equipment Maintenance	20
6.0 PROGRAM AMENDMENT	21
 TABLES	
Table 3-1 Summary of Facility Operations and Best Management Practices for Fugitive Dust Control	6
 FIGURES	
Figure 2-1 Facility Location Map	
Figure 2-2 Facility Layout Map	
Figure 2-3 Facility Layout Drawing	
Figure 4-1 Anticipated Dust Boss Locations	
Figure 4-2 Designated Areas for Routine Watering and Sweeping	



1.0 INTRODUCTION

This Fugitive Particulate Operating Program (Program) has been prepared for the General III, LLC (GIII) scrap metal recycling facility as a condition of Illinois Environmental Protection Agency (IEPA) Construction Permit No. 19090021 (Condition 9.e.).

GIII is a state-of-the-art recycling facility located in the heart of an existing established industrial district well buffered from residential areas. GIII is configured to process 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. GIII will receive and shred mixed recyclable metal in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, and shipment of finished products to customers.

The objective of this Program is to identify, monitor, and treat (as may be necessary) sources of fugitive particulate emissions. GIII is implementing this Program as part of GIII's commitment to be a good neighbor, a good steward of the environment, and to meet or exceed applicable environmental standards (identified in Section 1.2) to be protective of human health and the environment.

1.1 Facility Location and Contact Information

<u>Business Name:</u>	General III, LLC
<u>Source Location:</u>	11600 South Burley – Chicago, Illinois 60617 Hyde Park Township, Cook County Illinois
<u>Latitude/Longitude</u>	41.685201° N / -87.545847° W – Approximate Location of Front Gate
<u>Office/Mailing Address:</u>	1909 N. Clifton Avenue – Chicago, Illinois 60614
<u>Authorized Representative Responsible for this Program:</u>	Mr. Jim Kallas - Environmental Manager 847-508-9170 – jimkallas@general-iron.com
<u>IEPA Site ID No.:</u>	031600SFX
<u>SIC Code:</u>	5093 – Scrap and Waste Materials
<u>NAICS Code:</u>	423930 – Recyclable Material Merchant Wholesalers

1.2 Illinois Environmental Protection Agency – Fugitive Emission Regulatory Requirements

1.2.1 General Limitation for Fugitive Particulate Matter - 35 IAC 212.301

GIII is subject to the general limitation for fugitive particulate matter identified in 35 IAC 212.301, which requires that:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program

Pursuant to 35 IAC 212.302, a Fugitive Particulate Operating Program is required for any facility with operations belonging to specified groups of Standard Industrial Classification (SIC) Codes **and** that are located within a specified area. GIII is located in Cook County, which is a specified area under 35 IAC 212.302; however, GIII's SIC Code (5093 Scrap and Waste Materials) is **not** among the specified SIC codes. Therefore, GIII is not subject to a requirement to have a Fugitive Particulate Operating Program.

Although not required by IEPA regulations, GIII has voluntarily agreed to prepare and implement this Fugitive Particulate Operating Program to describe the best management practices that will be used to minimize potential fugitive particulate emissions and ensure compliance with 35 IAC 212.301.

1.3 Definition of Visible Emissions

For the purposes of this Program, the presence of Visible Emissions means the existence of a visible fugitive particulate plume that threatens to cross the Industrial Campus property line.

Fugitive particulate does not include steam (water vapor), engine combustion exhaust, and particulate matter emitted from a properly permitted exhaust stacks with or without a pollution control device because each permitted exhaust point has a separate opacity limit and particulate mass emission limit included in the facility construction/operation permit.

1.4 Site Boundaries

For the purposes of this Program, the 'property line,' as referenced in 35 IAC 212.301, is the Site Boundary identified in Figure 2-2 (i.e. property line of the industrial campus).

2.0 FACILITY SITE MAP

The location of GIII is shown on Figures 2-1 and 2-2. GIII operates on approximately 25 acres of leased property within an existing industrial campus located at 11600 South Burley Avenue in Chicago, Illinois. Four other affiliated material recycling businesses are located within the industrial campus.

The GIII scrap metal recycling facility is shown on Figure 2-3. The Facility Site Map indicates the locations of the Facility boundaries, buildings, location of material handling and processing areas, shredder enclosure, shredder emission control system, stockpiles, truck scales and facility vehicle entrance.

The vast majority of the Facility is paved with concrete or asphalt pavement. The limited area that is not paved is covered with compacted slag or asphalt grindings.



& ASSOCIATES, INC.

Facility Site Map

3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

GIII is a state-of-the-art recycling facility located in the heart of an existing established industrial district well buffered from residential areas. GIII is configured to process up to 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, stockpiling and off-site shipment of finished products.

Raw materials are delivered to the facility from a variety of sources including retail, commercial/industrial accounts via trucks or contract haulers and peddlers via peddler vehicles. Peddlers and semi-trucks entering the facility first pass through a truck scale.

Semi-trucks are then directed to a material staging area near the raw material stockpiles. Designated Facility personnel inspect all loads for unauthorized materials in accordance with Facility procedures. After unloading, the semi-trucks and peddler vehicles exit the Facility after passing over the appropriate truck scale.

The shredding process produces ferrous metal and Automobile Shredder Residue (ASR) which contains non-metallic material, non-ferrous metal and a limited amount of ferrous metal. Ferrous metal is processed to remove non-metallic material through a series of material handling steps in the Ferrous Metal Processing system to produce clean ferrous metal.

The ASR is directed to a stockpile for temporary storage prior to processing. ASR is transferred a short distance from the ASR stockpile to the Non-Ferrous Metal Processing system using a rubber-tired loader. ASR is processed by a variety of advanced material handling and separation equipment in the Non-Ferrous Metal Processing system to recover various sizes and grades of non-ferrous metals. Non-metallic material removed by the Non-Ferrous Metal Processing system is directed to a stockpile prior to being loaded into semi-trucks for off-site disposal at an appropriately licensed landfill.

Table 1 summarizes facility operations with the potential to generate fugitive particulate and the Best Management Practices (BMPs) that will be utilized to achieve compliance with 35 IAC 212.301. For the purposes of this Program, compliance with 35 IAC 212.301 is determined at the Site Boundary (i.e. the property line of the industrial campus as shown on Figure 2-2). Detailed descriptions of the BMPs are presented in Section 4.0.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

Table 1 – Summary of Facility Operations and Best Management Practices for Fugitive Particulate Control

Operation	Best Management Practices				
	Periodic Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Potential Additional BMPs That May Be Used
Raw Material Unloading/Handling	X	X	X		
Shredder Enclosure	X				Water injection/shredder emissions capture and control system
Material Transfer Points	X	X			Conveyor covers on selected conveyors
Material Stockpiles	X	X	X		Partial enclosures (side walls) on selected stockpiles
Non-Ferrous Processing Building					Enclosed in a building with building exhaust treated by dust collectors
Material Loadout	X	X	X		Dedicated water spray if needed
Traffic Areas – Paved Areas	X	X	X		Water truck as needed
Traffic Areas – Unpaved Areas	X	X		X	Water truck as needed
Property Lines	X				Identify the source(s) of visible emissions and take corrective actions as described above.

3.1 Raw Material Unloading/Handling

Raw scrap in bulk trucks (semi-trailers) is dumped on the ground near the shredder infeed conveyor where cranes equipped with magnets or grapples sort through the material and place it on a raw material stockpile or onto the shredder infeed conveyor of the shredder. These or other cranes equipped with magnets or grapples then transfer the material from the stockpiles to the shredder infeed conveyor.

The space available for stockpiling raw material is limited, and therefore, the material is typically processed within several days of its receipt. The raw material stockpiles will not be used for long term storage.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

The following BMPs will be used to identify and control (as needed) Visible Emissions from raw material unloading and handling.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the raw material unloading and handling areas for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized as needed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. Areas adjacent to raw material handling operations will be included in the watering and sweeping of paved areas described in Section 3.7.

3.2 Shredder Enclosure

The shredder is located in a partial enclosure with solid wall panels, open metal grating on the roof and an open area at ground level. Shredder emissions are captured by a hood located over the top of the shredder. Captured emissions are routed to the emission control system. Captured emissions are not fugitive emissions.

Potential sources of fugitive emissions inside the shredder enclosure are limited to three conveyor transfer points and potential uncaptured emissions from the shredder operation.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the shredder enclosure for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. If Visible Emissions are observed exiting the shredder enclosure, operators will perform a system inspection to identify the potential source and cause of the Visible Emissions and take appropriate corrective actions, which may include a change in the shredder water injection rate or shredder emissions capture and control system operating parameters.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

3.3 Material Transfer Points

Material is primarily transported through the Ferrous and Non-Ferrous processes on a series of belt conveyors. A material transfer point is the point at which material from an upstream conveyor is transferred to a downstream conveyor, the point at which an upstream conveyor feeds a piece of processing equipment, or the point at which a piece of processing equipment discharges material onto a takeaway conveyor. Visible Emissions from a transfer point may occur when the material being transferred has a high concentration of fine material and low moisture content.

Select conveyors that transfer streams containing significant amounts of light material that could easily become windblown will be equipped with covers.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the facility areas with the highest potential for fugitive particulate. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii.

3.4 Intermediate and Product Stockpiles

The space available for stockpiling intermediates and products is limited and, therefore, these materials are typically processed or shipped off site regularly. These stockpiles will not be used for long term storage of materials.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material stockpiles for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. With the exception of the Raw Material stockpiles, the two Ferrous Metal Stockpiles, and the ASR stockpile, all stockpiles identified in facility emission estimates will have solid partitions on three sides.
- iii. Areas adjacent to stockpiles will be included in the watering and sweeping of paved areas described in Sections 3.7.

3.5 Non-Ferrous Processing Building

Non-Ferrous material processing is performed in the Non-Ferrous Processing Building. The building is equipped with four identical baghouses that collect dust from specific points in the process using a network of duct work and hoods. Dust captured in the collection system is routed to a baghouse filter. Treated air from three of the four baghouses is exhausted back into the building. The treated air from the fourth baghouse is discharged to the atmosphere. Particulate emissions in the baghouse exhaust stream that is discharged to the atmosphere are not fugitive emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of conveyor wall openings, personnel doors, and other openings in the Non-Ferrous Processing Building for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. If Visible Emissions are observed from the building openings, the building will be inspected to ensure that personnel and service doors are closed when not in use and that the baghouses are functioning properly. Material removed by the baghouses is collected on a covered conveyor and transferred to the waste material stockpile.

3.6 Material Loadout

Material loadout occurs when stockpiled material is transferred to trucks using a rubber-tired loader, or material handler.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material loadout areas for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles and adjacent loadout areas if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material to minimize the potential for Visible Emissions.
- ii. Areas adjacent to material loadout activity will be included in the watering and sweeping of paved areas described in Sections 3.7.

3.7 Paved Areas

The majority of the facility is paved with concrete or asphalt. The areas with the highest potential for fugitive particulate are the primary traffic routes used by vehicles delivering raw material or transporting materials from the site.

Application of water will be limited on days when precipitation exceeds ¼" or when temperatures are near freezing and water application may create unsafe conditions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. Heavily traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day.

B. Fugitive Particulate Control Measures:

- i. Water will be applied to heavily used paved areas at least once per day, subject to the weather conditions identified above. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

- ii. Sweeping of designated heavy traffic areas will occur at least once every other day, based on daily observations and subject to the weather conditions identified above.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation).

- iii. Rumble strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

3.8 Unpaved Areas

Limited areas within the Facility that are not paved with concrete or asphalt are covered with compacted slag or asphalt grindings. Fugitive particulate emissions from unpaved areas are associated with vehicle use.

Application of water will be limited on days when precipitation exceeds 1/4" or when temperatures are near freezing and water application may create unsafe conditions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. Heavily used areas will be observed three times per day and lightly used areas will be observed once per day.

B. Fugitive Particulate Control Measures:

- i. Water will be applied to heavily used unpaved areas at least once per day subject to the weather conditions identified above. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

- ii. If Visible Emissions are observed from unpaved areas during weather conditions that prohibit water application, alternative control measures will be evaluated. Evaluation and potential application of alternative control measures will be based on operating experience and routine observations. Alternative control measures may include, but are not limited to minimizing activity in unpaved areas, application of surfactant or oil-based coatings prior to winter conditions, or placement of additional slag or asphalt grindings.

3.9 Downwind Property Line and Barge Loading Area

For the purposes of this Program, the 'property line,' as referenced in 35 IAC 212.301, is the Site Boundary identified in Figure 2-2 (i.e. property line of the industrial campus).

Property line observations will be limited to the portion(s) of the industrial campus property lines that are, at the time of the observation, downwind from GIII operations and the barge loading area (when a barge is actively being loaded at the time of the observation).

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations at least once per day of the barge loading area (when barge loading is occurring at the time of the observation) and the downwind property line(s) of the industrial campus for the presence of Visible Emissions and record the results on a VEOC form.



Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control

4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

The following provides an additional description of the BMPs that will be implemented under this Program.

4.1 Periodic Visible Emissions Observations

As described in Section 3, designated trained personnel will make periodic observations three times per day for the presence of Visible Emissions and have the authority to implement fugitive particulate control measures as may be required. Observations will be made three times per day

Records of observations and dust control measures implemented (if any), are recorded on a VEOC form (see Section 5.2).

4.1.1 Employee Observations

In addition to the designated observations described above, other employees will be trained to identify Visible Emissions when performing their assigned duties. If Visible Emissions are identified, the employee will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures. Employee Observations will not be recorded on a VEOC form.

4.2 Meteorological Data Station

An onsite meteorological data station (met station) will be installed and operated to record hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts. The met station will be centrally located at a minimum height pursuant to applicable USEPA protocols and guidance. Met data will be periodically downloaded and stored electronically at the Facility.

4.3 Dust Boss

Dust Bosses are water atomizing cannons like those pictured to the right. The barrel of the cannon is equipped with a fan to force air through the barrel of the cannon at an elevated velocity. Water is injected into the air stream at the discharge of the barrel through specially designed atomizing nozzles. The velocity of the air stream directs the water droplets toward the source of the fugitive particulate matter. Water droplets impact suspended particulate,



increasing the density of the particulate matter causing it to settle to the ground via gravity. Dust Bosses are used to control fugitive particulate emissions from conveyors, stockpiles and roadways.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

The cloud of atomized water above a particulate emission source may be mistaken for particulate matter by uninformed observers. The cloud of water droplets should not be read as particulate matter if crossing the property line. Dust Bosses can be located at ground level, building rooftops or on supported columns in order to distribute the atomized water over the desired area(s). Figure 4-1 identifies the anticipated location of Dust Bosses. The deployment of Dust Bosses will be modified as may be required based on Facility operating experience.

4.4 Paved and Unpaved Areas

Paved and unpaved areas (including traffic routes) are routinely treated using water application and sweeping unless observed pavement conditions indicate it is unnecessary, such as following a precipitation event.

Application of water will be limited by near freezing temperatures in order to maintain safe operating conditions.

4.4.1 Water Truck for Paved and Unpaved Areas

A water truck owned and operated by GIII will be used to periodically apply water to accessible paved and unpaved areas. The water truck will make routine rounds in the areas identified in Figure 4-2. Application of water to paved and unpaved areas will be documented on a log.

4.4.2 Sweeper for Paved Areas

A motorized sweeper owned and operated by GIII will be used to periodically sweep paved areas. The sweeper will make routine rounds approximately every other day in accessible areas.

Routine sweeping of paved areas will be supplemented by additional sweeping as indicated by Visible Emissions observations described in Section 4.1.

Sweeping of paved areas will be documented in a log.

4.4.3 Wheel Cleaning Station

Rumble strips will be installed on the approach to the outbound truck scale requiring large vehicles to pass over the control device before entering the scale. The purpose of the rumble strips is to reduce the amount of loose dirt and debris on truck and trailer tires to reduce potential for vehicle track out.

The wheel cleaning station will be routinely inspected, and accumulated material removed on a regular basis to ensure effective operation of the cleaning station.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

4.5 Other Fugitive Particulate Control Measures

The following identifies other fugitive particulate control measures that will be implemented at this Facility.

4.5.1 Shredder Water Injection

The shredder will be equipped with water injection as a mitigation measure for deflagrations in the shredder. Water injected into the shredder flashes steam and fills the voids in the shredder body displacing oxygen in ambient air. Removal of oxygen from the shredder will reduce the potential for deflagrations. Although it is not used as a control measure, wetting the material in the shredder has a secondary effect of minimizing the potential for fugitive particulate emissions from the shredder material discharge conveyor and other downstream conveyors.

The shredder operator will adjust the water injection rate as indicated by the rate, type and characteristics of the material being processed. Adjustments to the shredder water injection rate are part of routine shredder operation and will not be recorded under this Program.

4.5.2 Shredder Emission Control System

The shredder emission control system consists of an emissions collection hood, cyclone for removal of large pieces of solid matter, a roll media filter for particulate control, and a regenerative thermal oxidizer and packed tower scrubber. Potential particulate emissions from the shredder emission control system are not fugitive emissions, because the shredder emission control system is assigned a permitted emission rate, and is subject to specific opacity and mass emission limits identified in the Facility construction/operation permit.

4.5.3 Non-Ferrous Processing Building Baghouse

Potential particulate emissions from the equipment located in the Non-Ferrous Processing Building are collected and controlled by four identical cartridge style baghouses. Three of the baghouses collect particulate emissions from various dust pickup points in the process, remove entrained particulate, and exhaust treated air back into the building. There are no emissions to the atmosphere from the three baghouses that exhaust back into the building. The fourth baghouse collects particulate emissions from various dust pickup points in the process, removes entrained particulate and exhausts treated air to the outside atmosphere.

Particulate emissions from the baghouse that exhausts to the outside atmosphere are not considered fugitive emissions because the dust collector is assigned a permitted emission rate and is subject to specific opacity and mass emission limits identified in the facility construction/operation permits.



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

Fine particulate matter removed by the baghouses is collected in sealed hoppers and periodically conveyed to the Non-Ferrous waste material stockpile via covered conveyor.

4.5.4 Conveyor Covers

Select conveyors are be equipped with covers to minimize the potential for windblown material.

4.6 Maintenance of Fugitive Particulate Control Equipment

Maintenance of equipment used for fugitive particulate control, including Dust Bosses, water truck and sweeper, is performed by on-site personnel in accordance with manufacturers recommendations.

5.0 RECORDKEEPING

It should be noted that the description of the information to be captured in the forms described herein are considered preliminary. This Program will be updated to reflect as-built conditions.

The following records will be maintained pursuant to this Program in accordance with permit recordkeeping requirements.

5.1 Meteorological Data

Meteorological data will be recorded and maintained electronically on site. Data will include hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts.

5.2 Visible Emissions Observation and Control Form

A Visible Emissions Observation and Control (VEOC) Form will be used to record the results of routine Visible Emissions observations and corresponding control measures applied. Employee Observations will not be recorded.

The VEOC form will include the following information:

- Date/Time
- Name of Observer
- Area(s) Observed
 - Time of Observation
 - Visible Emissions Observed – Yes/No
 - > Approximate migration distance from source (ft)
 - Controls Required (Yes/No)
 - > If Yes, identify Control(s) Implemented

The VEOC form is not attached to this document and will be included in an amended program that will reflect as-built site conditions.

5.3 Water Truck Log

A log of water truck use will be maintained by the operator to record water applications to paved and unpaved areas. This log will include:

- Date/Time
- Name of Water Truck Operator
- Reason for Water Application
 - Scheduled or
 - Corrective Action in response to an Employee Observation



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

- Area(s) of Water Application
 - Time of Application
 - Approximate Amount of Water Applied (gallons)

5.4 Sweeper Log

A log of sweeper operation will be maintained by the operator to record sweeping events. This log will include:

- Date/Time
- Name of Sweeper Operator
- Reason for Sweeping
 - Scheduled or
 - Corrective Action in response to an Employee Observation
- Area(s) Swept
 - Time of Sweeping

5.5 Dust Bosses

A log of Dust Boss operation will be maintained. This log will include:

- Date/Time(s) of Dust Boss Operation
- Reason for Operation
 - Proactive or
 - Corrective Action in response to an Employee Observation

5.6 Fugitive Particulate Control Equipment Maintenance

Records of maintenance performed on fugitive particulate control equipment will be maintained by the Facility in accordance with permit recordkeeping requirements.

6.0 PROGRAM AMENDMENT

This Fugitive Particulate Operating Program shall be amended from time to time so that the operating program is current. Program amendments will be submitted to the Illinois EPA within thirty (30) days of such amendment. Any future revision to this Program made by GIII is automatically incorporated by reference as an enforceable condition of the Facility construction/operation permit, unless it is expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies GIII of a deficiency with any revision to the Program, GIII will revise and re-submit the Fugitive Particulate Operating Program within thirty (30) days of receipt of notification to address the deficiency.



Program Amendment



Fugitive Particulate Operating Program

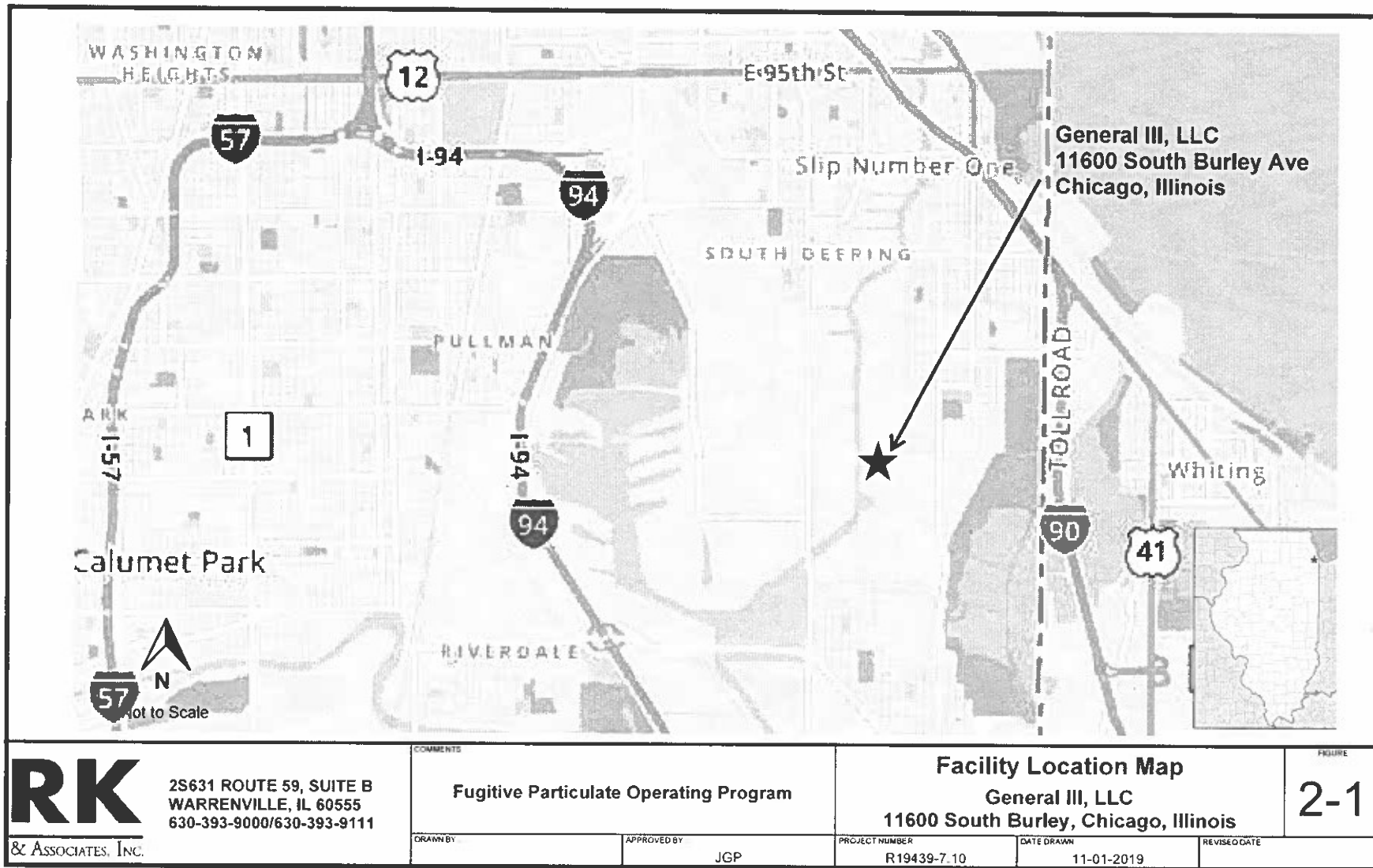
**General III, LLC
11600 South Burley
Chicago, Illinois 60614**

FIGURES

RK

& ASSOCIATES, INC.

General III, LLC
Fugitive Particulate Operating Program



General III LLC
Chicago, Illinois

Fugitive Particulate Operating
Program

R 011142

RK

& ASSOCIATES, INC.

**General III, LLC
Fugitive Particulate Operating Program**

**RK**

& ASSOCIATES, INC.

2S631 ROUTE 59, SUITE B
WARRENVILLE, IL 60555
630-393-9000/630-393-9111

COMMENTS

**Fugitive Particulate
Operating Program**

DRAWN BY

APPROVED BY

JGP

PROJECT NUMBER

R19439-7 10

DATE DRAWN

11-01-2019

REVISED DATE

Facility Layout Map**General III, LLC****11600 South Burley, Chicago, IL**

FIGURE

2-2

Figure 2-3 GIII Facility Layout
Fugitive Dust Operating Program
General III, LLC
11600 South Burley Avenue
Chicago, Illinois

The diagram illustrates the layout of the GIII facility, showing various buildings, stockpiles, and infrastructure. Key features include:

- Buildings:** Non-Ferrous Processing Building, Office Maintenance Building, Peddler Drop Off Area, Peddler Truck Scales, Bulk Scrap Truck Scales, and a Water Treatment Facility.
- Stockpiles:** Ferrous Stockpile, Bulk Scrap Stockpile, Shredded Scrap Stockpile, and ASR Stockpile.
- Infrastructure:** Rail, Barge Loading, Curb Wall, and various structural details.
- Stationing:** Numerous stationing points are marked along the site, such as STA. 13+87.7, STA. 17+93.3, STA. 19+04.4, and STA. 26+28.6.
- Proposed Lease Line:** A dashed line indicating the boundary of the proposed lease.
- Existing Building:** A building labeled "EXISTING BUILDING N.C." is shown near the bottom right.
- North Arrow:** A north arrow is located in the upper right corner.
- Graphic Scale:** A scale bar at the bottom right indicates distances in feet, ranging from 0 to 120.

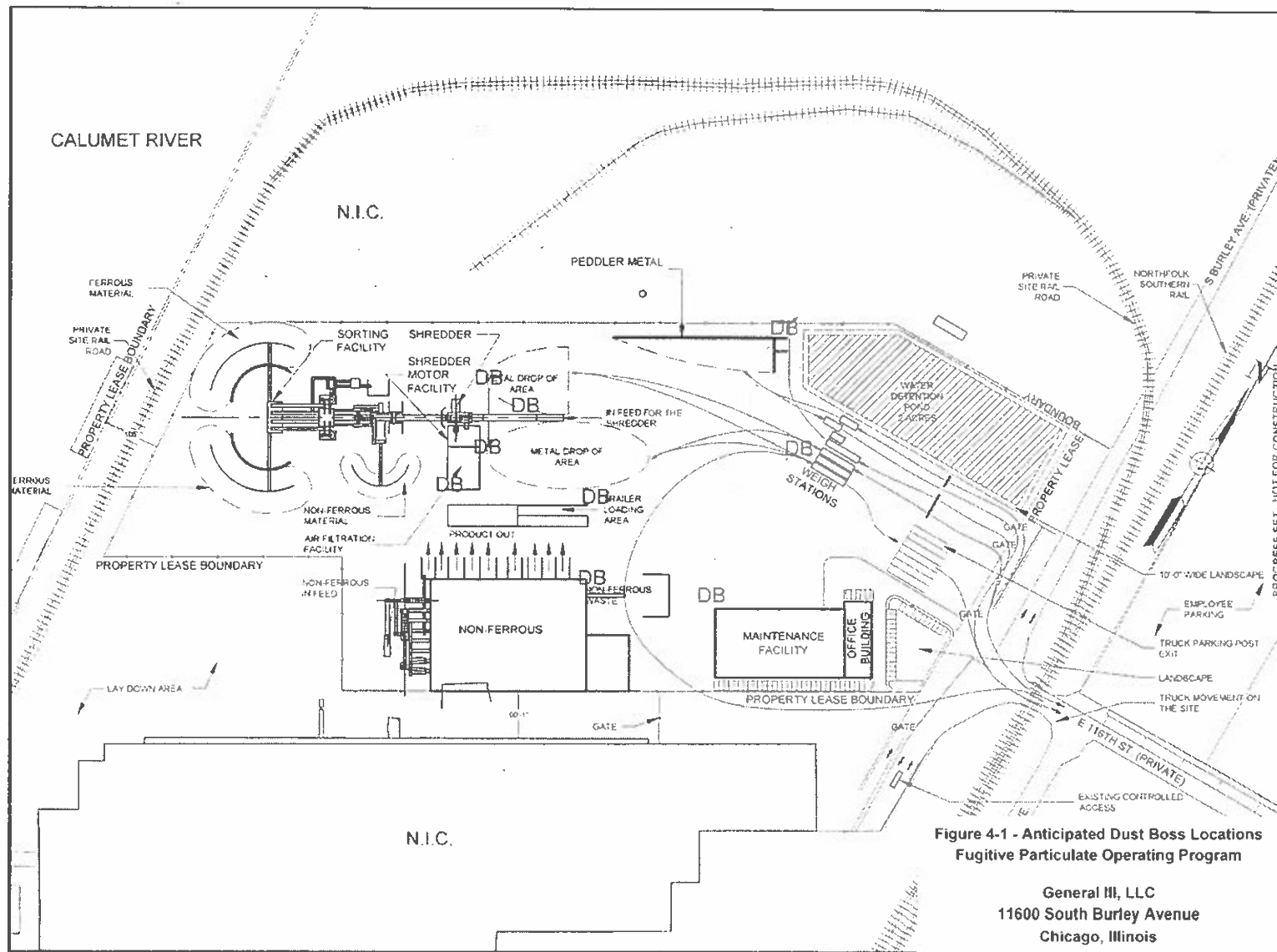
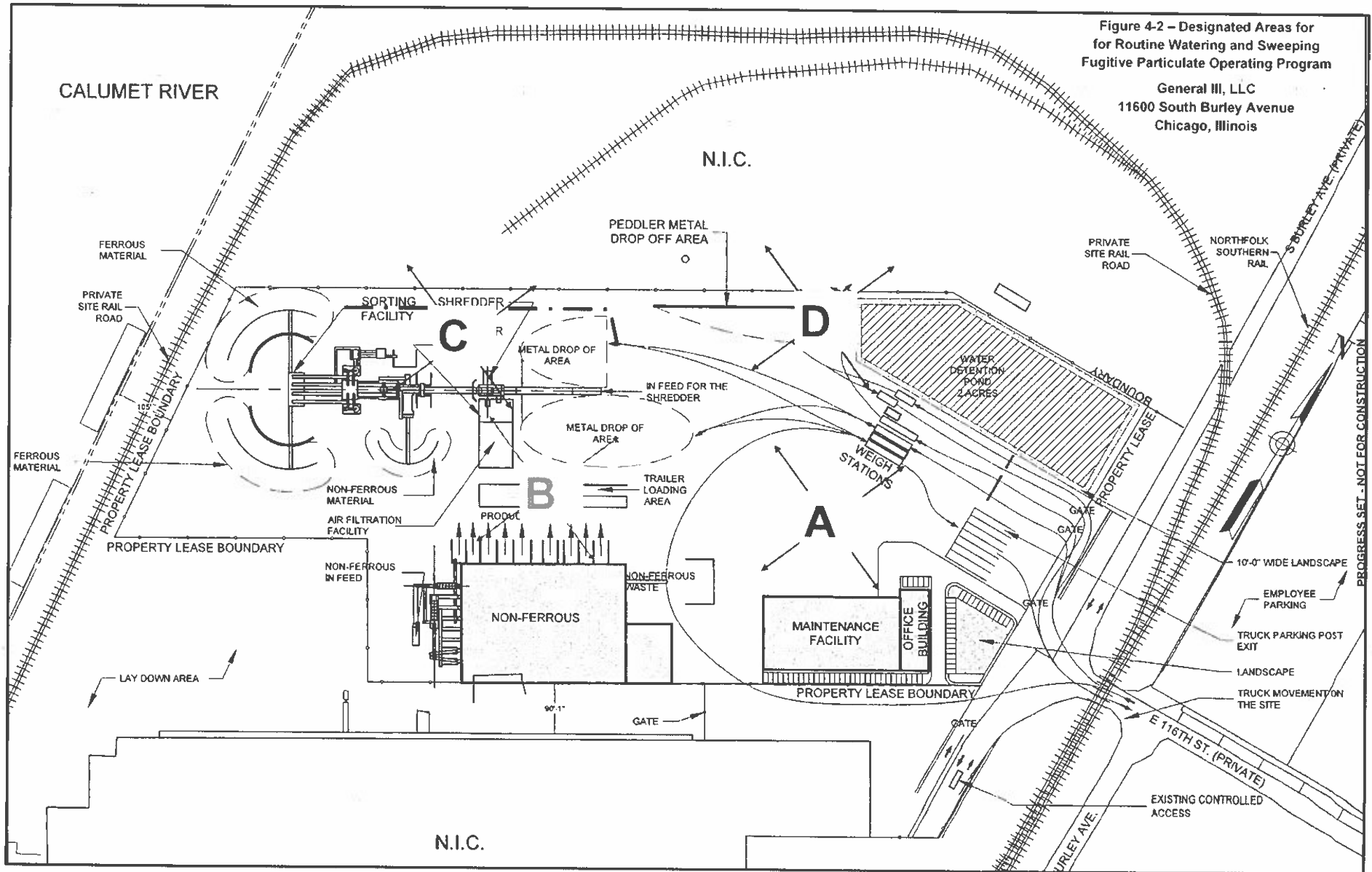


Figure 4-2 – Designated Areas for
for Routine Watering and Sweeping
Fugitive Particulate Operating Program

General III, LLC
11600 South Burley Avenue
Chicago, Illinois





ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

Inspection Report

GENERAL INFORMATION

Report Date: 3/20/2020

Report Author: Eric E. Jones

SOURCE INFORMATION

LOCATION

Facility ID #: 031600SFX

Company Name: General Iron III

Street Address: 11600 South Burley

City, County: Chicago, Cook County

State, Zip Code: Illinois, 60617

Contact/Title: Jim Kallas

Contact Phone/Fax: 847/508-9170

Contact Email:

SCOPE OF INSPECTION

Review of Fugitive Dust Plan dated March 20, 2020.

EVALUATION # 1

Fugitive Particulate Matter Operating Program

INSPECTION FOCUS

- Name and address of the source, owner and operator.
- Map of source showing locations of storage piles, conveyor loading operations and traffic patterns.
- Location of unloading and transporting operations.
- Description of best management practices (BMP).
- Description of air pollution control equipment.
- Frequency of application of dust suppressants.

REVIEW FINDINGS

The source is not required to submit a Operating Program under 35 Ill. Adm Code 212.302. Therefore I am reviewing this under the risk of violation of 35 Ill. Adm. Code 212.301.

Raw material unloading/handling:

Monitoring: Trained personnel will conduct visual observations of the raw material unloading and handling areas for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and

Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

Control measures: Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized as needed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.

Shredder enclosure:

Monitoring: Trained personnel will conduct visual observations of the shredder enclosure for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

Control measures: If Visible Emissions are observed exiting the shredder enclosure, operators will perform a system inspection to identify the potential source and cause of the Visible Emissions and take appropriate corrective actions, which may include a change in the shredder water injection rate or shredder emissions capture and control system operating parameters.

Material Transfer Points:

Monitoring: Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

Control Measures: Dust Boss water atomizers will be positioned to mist the facility areas with the highest potential for fugitive particulate. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.

Intermediate and Product Storage Piles:

Monitoring: Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

Control Measures: Dust Boss water atomizers will be positioned to mist stockpiles if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions. With the exception of the Raw Material stockpiles, the two Ferrous Metal Stockpiles, and the ASR stockpile, all stockpiles identified in facility emission estimates will have solid partitions on three sides.

Non-Ferrous Processing Building:

Monitoring: Trained personnel will conduct visual observations of conveyor wall openings, personnel doors, and other openings in the Non-Ferrous Processing Building for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

Control Measures: If Visible Emissions are observed from the building openings, the building will be inspected to ensure that personnel and service doors are closed when not in use and that the baghouses are functioning properly. Material removed by the baghouses is collected on a covered conveyor and transferred to the waste material stockpile.

Material Loadout:

Monitoring: Trained personnel will conduct visual observations of material loadout areas for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

Control Measures: Dust Boss water atomizers will be positioned to mist stockpiles and adjacent loadout areas if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material to minimize the potential for Visible Emissions.

Paved Areas:

Monitoring: rained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. Heavily traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day.

Control Measures Water will be applied to heavily used paved areas at least once per day, subject to the weather conditions identified above. Additional applications may be made in response to Employee Observations. Operation of the water truck will documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation). Sweeping of designated heavy traffic areas will occur at least once every other day, based on daily observations and subject to the weather conditions identified above. Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation). Rumble strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

Unpaved Areas:

Monitoring: Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. Heavily used areas will be observed three times per day and lightly used areas will be observed once per day.

Control Measures: Water will be applied to heavily used unpaved areas at least once per day subject to the weather conditions identified above. Additional applications may be made in response to Employee Observations. Operation of the water truck will documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).

Downwind Property Line/Barge Loading:

Monitoring: Trained personnel will conduct visual observations at least once per day of the barge loading area (when barge loading is occurring at the time of the observation) and the downwind property line(s) of the industrial campus for the presence of Visible Emissions and record the results on a VEOC form.

It is the determination of this reviewer that the revised FPOP as submitted on July 17, 2019, meets the criteria of a FPOP and is acceptable. No issues are anticipated to arise from the implementation of this revised FPOP as written.


General Checklist		YES	NO	N/A
What is the purpose of this review?		FPOP review for Permits		
Is this review being done on site or in the office (desk top)?		Office Review		
1. Is the facility in an area of Granite City as defined by 35 Ill. Adm. Code 212.324(a)(1)(C) and engaged in one of these operations? <ul style="list-style-type: none"> • Mining operations (SIC major groups 10 through 14) • Manufacturing operations (SIC major groups 20 through 39 including grain-handling and grain-drying operations, portable grain-handling equipment and one-turn storage space) • Transportation, communications, electric, gas, and sanitary services (SIC major groups 40 through 49) • Wholesale trade-farm supplies (SIC Industry No. 5191) 			X	
If yes, answer 4-9 then go to the Granite City check list.				
2. Is the facility in the area of McCook defined by 35 Ill. Adm. Code 212.324(a)(1)(A) or the area of Lake Calumet defined by 35 Ill. Adm. Code 212.324(a)(1)(B) and engaged in one of these operations? <ul style="list-style-type: none"> • Mining operations (SIC major groups 10 through 14) • Manufacturing operations (SIC major groups 20 through 39 including grain-handling and grain-drying operations, portable grain-handling equipment and one-turn storage space) • Transportation, communications, electric, gas, and sanitary services (SIC major groups 40 through 49) 		X		
If yes, answer 4-9 then go to the McCook/Lake Calumet check list.				
3. Is the facility in one of the other geographical areas of application defined by 35 Ill. Adm. Code 212.302(a) and engaged in one of these operations? <ul style="list-style-type: none"> • Mining operations (SIC major groups 10 through 14) • Manufacturing operations (SIC major groups 20 through 39 except for grain-handling and grain-drying operations, portable grain-handling equipment and one-turn storage space) • Electric generating operations (SIC group 491) 			X	
If yes, answer 4-9 then go to the Other Geographical Areas check list.				
If the answers to 1, 2, and 3 are no, the facility is not required to have an operating program pursuant to Part 212, Subpart K. They may have an operating program pursuant to permit conditions, compliance commitment agreements ("CCA's"), or facility may choose to submit on their own accord. If this is the case please answer 4-9 and conduct a review as outlined in the General Guidance document (as applicable) and document the review in a Tier 1 report. NOTE: The review should include compliance determinations in reference to any permit condition or CCA's as applicable.				
4. Do they have an Operating Program?			X	
If yes, when was it originally prepared? See GIR Report				
5. Was the Operating Program submitted to the Agency?		X		
If yes, when was it submitted? See GIR Report				
If yes, when was it reviewed? See GIR Report				
6. Has the program been incorporated into a permit?			X	
If yes, what is the permit and when was it issued? Has not been incorporated as of this review but will be included when Joint Construction and Lifetime Operating Permit is issued.				
7. Does it have the name and address of the source?		X		
8. Does it have the name and address of the owner or operator in charge of the source and the program?		X		
9. Has it been updated recently?		X		

If yes, when?	See GIR Report
---------------	----------------

Other Geographic Areas Check List

	YES	NO	N/A
Property Line			
1. Are there emissions of fugitive particulate matter, as defined by 35IAC2112490, that are visible by an observer looking generally toward the zenith at a point beyond the property line of the source?			x
If yes, provide more information:			
2. Does the source conduct observations for visible emissions and are records kept of such?	x		
Storage Piles			
3. Does the facility have a potential to emit in excess of 100 T/yr of particulate emissions from all sources? If so, how was this determination made? Is the potential to emit limited by a permit(s)? If no, go to 8		x	
a) If yes, does the storage pile have uncontrolled fugitive particulate matter emissions in excess of 50 T/yr? Explain basis for answer. If no storage piles apply, go to 8			x
b) If yes, are all storage piles protected by a cover or sprayed with a surfactant solution or water on a regular basis, as needed, or treated by an equivalent method, in accordance with the operating program?			x
c) If any are not, then can it be proved that the storage pile does not have fugitive particulate matter emissions that cross the property line by either direct wind action or re-entrainment (i.e., cleaning of spills, moving of equipment, etc.)?			
Identify the storage pile and provide more information if visible emissions are observed or indicated:			
4. Are all conveyor loading operations to the storage pile utilizing spray systems, telescopic chutes, stone ladders or other equivalent methods in accordance with the operating program?	x		
Identify the operation and provide more information if visible emissions are observed or indicated:			
5. Are all normal traffic pattern access areas surrounding the storage pile either paved and cleaned regularly or treated with water, oils or chemical dust suppressants and have the treatment applied on a regular basis, as needed, in accordance with the operating program?	x		
Identify the area and provide more information if visible emissions are observed or indicated:			
6. Are the above control methods detailed in the Fugitive Dust Plan?	x		
7. Are the storage piles, conveyor loading operations, and normal traffic pattern access areas surrounding the storage pile shown on a map of the facility?	x		
Provide more information on methods, frequencies, and any deviations:			
Traffic Areas			
8. Is the facility a mining or manufacturing facility?		x	
a) If yes, are all normal traffic pattern roads and parking facilities either paved and cleaned regularly or treated with water, oils or chemical dust suppressants and have the treatment applied on a regular basis, as needed, in accordance with the operating program?			x
Identify the area and provide more information if visible emissions are observed or indicated:			
9. Are these control methods detailed in the Fugitive Dust Plan?	x		
10. Are the normal traffic pattern roads and parking facilities shown on a map of the facility?	x		
Provide more information on methods, frequencies, and any deviations:			
Pollution Control Equipment			
11. If pollution control equipment is used for controlling particulate matter emissions according to an Fugitive Dust Plan, are emissions from that equipment below or equal to 68 mg/dscf (0.03 gr/dscf) as demonstrated by a stack test?			x
If no for any equipment, identify equipment and provide more information:			

12. Are all unloading and transporting operations of materials collected by pollution control equipment enclosed or utilize spraying, pelletizing, screw conveying or other equivalent methods?			X
If no for any operation, identify operation and provide more information:			
13. Are these pollution control equipment and control methods detailed in the Operating Program?			X
14. Are the locations of all the unloading and transporting operations of materials collected by pollution control equipment shown on a map of the facility?			X
Provide more information on methods, frequencies, and any deviations: Materials are returned to silos and not off site.			
Crushing, Grinding, Conveying, Bagging, and Loading Operations			
15. Are all crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, storage bins and fine product truck and railcar loading operations being sprayed with water or a surfactant solution, utilizing choke-feeding or being treated by an equivalent method in accordance with the operating program?	X		
Identify the operation and provide more information if visible emissions are observed or indicated: Only Transfer points.			
16. Are these control methods detailed in the Fugitive Dust Plan?	X		
Provide more information on methods, frequencies, and any deviations: Water injection at the shredder and daily observations of other processes for visible emissions and additional watering.			
1. Are there any additional Federal standards or permit conditions?		X	
If yes, list them:			

SIGNATURE	
REPORT CERTIFICATION:	<div style="text-align: center;">  </div> <hr/> <div style="text-align: center;"> <small>Eric E. Jones Reviewer</small> </div>

cc: DAPC – Division File
DAPC/FOS –



March 20, 2020

R17421-7.2

Mr. Eric Jones
Illinois Environmental Protection Agency - Bureau of Air
1021 North Grand Avenue East
Springfield, IL 62702

**Fugitive Particulate Operating Program for a
Scrap Metal Recycling Facility
General III, LLC – 11600 South Burley - Chicago, Illinois**

Dear Mr. Jones:

Please find attached a revised copy of the Fugitive Particulate Operating Program for the proposed General III, LLC (GIII) Scrap Metal Recycling Facility located in Cook County at 11600 South Burley Avenue in Chicago, Illinois. This revised copy of the Program addresses your verbal comments from March 19, 2020.

An electronic copy of the above referenced document has also been forwarded to you and Mr. Barria.

If you have any questions or need any additional information, please don't hesitate to contact us at 630-393-9000.

Yours very truly,
RK & Associates

A handwritten signature in dark ink, appearing to read "John G. Pinion", is written over a light blue horizontal line.

John G. Pinion
Associate Engineer

cc: Mr. Jim Kallas – General III, LLC – Chicago, Illinois (via e-mail)
Mr. German Barria – IEPA – Springfield, Illinois (hard copy and via-e-mail)

**Fugitive Particulate Operating Program
General III, LLC – 11600 S Burley Avenue - Chicago, Illinois**

March 20, 2020

R17421-7.2

Prepared for:

**General III, LLC
1909 North Clifton Avenue
Chicago, Illinois 60614
Attn: Mr. Jim Kallas**

Prepared by:

**John G. Pinion
Principal Engineer
RK & Associates, Inc.**



**2 South 631 Route 59
Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000
Fax: 630-393-9111**

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Facility Location and Contact Information	1
1.2 Illinois Environmental Protection Agency Fugitive Emission Regulatory Requirements .	2
1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301	2
1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program	2
1.3 Definition of Visible Emissions	2
1.4 Site Boundaries	2
2.0 FACILITY SITE MAP	3
3.0 FACILITY OPERATIONS AND APPLICATION OF	5
BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL	
3.1 Raw Material Unloading/Handling	6
3.2 Shredder Enclosure	7
3.3 Material Transfer Points	8
3.4 Intermediate and Product Stockpiles.....	8
3.5 Non-Ferrous Processing Building	9
3.6 Material Loadout	10
3.7 Paved Areas	10
3.8 Unpaved Areas	11
3.9 Downwind Property Line and Barge Loading Area	13
4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE	
PARTICULATE CONTROL	15
4.1 Periodic Visible Emissions Observations	15
4.1.1 Employee Observations	15
4.2 Meteorological Data Station	15
4.3 Dust Boss	15
4.4 Paved and Unpaved Areas	16
4.4.1 Water Truck for Paved and Unpaved Areas	16
4.4.2 Sweeper for Paved Areas	16
4.4.3 Wheel Cleaning Station	16

4.5 Other Fugitive Particulate Control Measures	17
4.5.1 Shredder Water Injection	17
4.5.2 Shredder Emission Control System	17
4.5.3 Non-Ferrous Building Baghouse	17
4.5.4 Conveyor Covers	18
4.6 Maintenance of Fugitive Particulate Control Equipment	18
5.0 RECORDKEEPING	19
5.1 Meteorological Data	19
5.2 Visible Emissions Observation and Control Form	19
5.3 Water Truck Log	19
5.4 Sweeper Log	20
5.5 Dust Boss Log	20
5.6 Fugitive Particulate Control Equipment Maintenance	20
6.0 PROGRAM AMENDMENT	21
 TABLES	
Table 3-1 Summary of Facility Operations and Best Management Practices for Fugitive Dust Control	6
 FIGURES	
Figure 2-1 Facility Location Map	
Figure 2-2 Facility Layout Map	
Figure 2-3 Facility Layout Drawing	
Figure 4-1 Anticipated Dust Boss Locations	
Figure 4-2 Designated Areas for Routine Watering and Sweeping	



1.0 INTRODUCTION

This Fugitive Particulate Operating Program (Program) has been prepared for the General III, LLC (GIII) scrap metal recycling facility as a condition of Illinois Environmental Protection Agency (IEPA) Construction Permit No. 19090021 (Condition 9.e.).

GIII is a state-of-the-art recycling facility located in the heart of an existing established industrial district well buffered from residential areas. GIII is configured to process 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. GIII will receive and shred mixed recyclable metal in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, and shipment of finished products to customers.

The objective of this Program is to identify, monitor, and treat (as may be necessary) sources of fugitive particulate emissions. GIII is implementing this Program as part of GIII's commitment to be a good neighbor, a good steward of the environment, and to meet or exceed applicable environmental standards (identified in Section 1.2) to be protective of human health and the environment.

1.1 Facility Location and Contact Information

<u>Business Name:</u>	General III, LLC
<u>Source Location:</u>	11600 South Burley – Chicago, Illinois 60617 Hyde Park Township, Cook County Illinois
<u>Latitude/Longitude</u>	41.685201° N / -87.545847° W – Approximate Location of Front Gate
<u>Office/Mailing Address:</u>	1909 N. Clifton Avenue – Chicago, Illinois 60614
<u>Authorized Representative Responsible for this Program:</u>	Mr. Jim Kallas - Environmental Manager 847-508-9170 – jimkallas@general-iron.com
<u>IEPA Site ID No.:</u>	031600SFX
<u>SIC Code:</u>	5093 – Scrap and Waste Materials
<u>NAICS Code:</u>	423930 – Recyclable Material Merchant Wholesalers

1.2 Illinois Environmental Protection Agency – Fugitive Emission Regulatory Requirements

1.2.1 General Limitation for Fugitive Particulate Matter - 35 IAC 212.301

GIII is subject to the general limitation for fugitive particulate matter identified in 35 IAC 212.301, which requires that:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program

Pursuant to 35 IAC 212.302, a Fugitive Particulate Operating Program is required for any facility with operations belonging to specified groups of Standard Industrial Classification (SIC) Codes **and** that are located within a specified area. GIII is located in Cook County, which is a specified area under 35 IAC 212.302; however, GIII's SIC Code (5093 Scrap and Waste Materials) is **not** among the specified SIC codes. Therefore, GIII is not subject to a requirement to have a Fugitive Particulate Operating Program.

Although not required by IEPA regulations, GIII has voluntarily agreed to prepare and implement this Fugitive Particulate Operating Program to describe the best management practices that will be used to minimize potential fugitive particulate emissions and ensure compliance with 35 IAC 212.301.

1.3 Definition of Visible Emissions

For the purposes of this Program, the presence of Visible Emissions means the existence of a visible fugitive particulate plume that threatens to cross the Industrial Campus property line.

Fugitive particulate does not include steam (water vapor), engine combustion exhaust, and particulate matter emitted from a properly permitted exhaust stacks with or without a pollution control device because each permitted exhaust point has a separate opacity limit and particulate mass emission limit included in the facility construction/operation permit.

1.4 Site Boundaries

For the purposes of this Program, the 'property line,' as referenced in 35 IAC 212.301, is the Site Boundary identified in Figure 2-2 (i.e. property line of the industrial campus).

2.0 FACILITY SITE MAP

The location of GIII is shown on Figures 2-1 and 2-2. GIII operates on approximately 25 acres of leased property within an existing industrial campus located at 11600 South Burley Avenue in Chicago, Illinois. Four other affiliated material recycling businesses are located within the industrial campus.

The GIII scrap metal recycling facility is shown on Figure 2-3. The Facility Site Map indicates the locations of the Facility boundaries, buildings, location of material handling and processing areas, shredder enclosure, shredder emission control system, stockpiles, truck scales and facility vehicle entrance.

The vast majority of the Facility is paved with concrete or asphalt pavement. The limited area that is not paved is covered with compacted asphalt grindings or similar material.

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3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

GIII is a state-of-the-art recycling facility located in the heart of an existing established industrial district well buffered from residential areas. GIII is configured to process up to 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, stockpiling and off-site shipment of finished products.

Raw materials are delivered to the facility from a variety of sources including retail, commercial/industrial accounts via trucks or contract haulers and peddlers via peddler vehicles. Peddlers and semi-trucks entering the facility first pass through a truck scale.

Semi-trucks are then directed to a material staging area near the raw material stockpiles. Designated Facility personnel inspect all loads for unauthorized materials in accordance with Facility procedures. After unloading, the semi-trucks and peddler vehicles exit the Facility after passing over the appropriate truck scale.

The shredding process produces ferrous metal and Automobile Shredder Residue (ASR) which contains non-metallic material, non-ferrous metal and a limited amount of ferrous metal. Ferrous metal is processed to remove non-metallic material through a series of material handling steps in the Ferrous Metal Processing system to produce clean ferrous metal.

The ASR is directed to a stockpile for temporary storage prior to processing. ASR is transferred a short distance from the ASR stockpile to the Non-Ferrous Metal Processing system using a rubber-tired loader. ASR is processed by a variety of advanced material handling and separation equipment in the Non-Ferrous Metal Processing system to recover various sizes and grades of non-ferrous metals. Non-metallic material removed by the Non-Ferrous Metal Processing system is directed to a stockpile prior to being loaded into semi-trucks for off-site disposal at an appropriately licensed landfill.

Table 1 summarizes facility operations with the potential to generate fugitive particulate and the Best Management Practices (BMPs) that will be utilized to achieve compliance with 35 IAC 212.301. For the purposes of this Program, compliance with 35 IAC 212.301 is determined at the Site Boundary (i.e. the property line of the industrial campus as shown on Figure 2-2). Detailed descriptions of the BMPs are presented in Section 4.0.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

Table 1 – Summary of Facility Operations and Best Management Practices for Fugitive Particulate Control

Operation	Best Management Practices				
	Periodic Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Potential Additional BMPs That May Be Used
Raw Material Unloading/Handling	X	X	X		
Shredder Enclosure	X				Water injection/shredder emissions capture and control system
Material Transfer Points	X	X			Conveyor covers on selected conveyors
Material Stockpiles	X	X	X		Partial enclosures (side walls) on selected stockpiles
Non-Ferrous Processing Building					Enclosed in a building with building exhaust treated by dust collectors
Material Loadout	X	X	X		Dedicated water spray if needed
Traffic Areas – Paved Areas	X	X	X		Water truck as needed
Traffic Areas – Unpaved Areas	X	X		X	Water truck as needed
Property Lines	X				Identify the source(s) of visible emissions and take corrective actions as described above.

3.1 Raw Material Unloading/Handling

Raw scrap in bulk trucks (semi-trailers) is dumped on the ground near the shredder infeed conveyor where cranes equipped with magnets or grapples sort through the material and place it on a raw material stockpile or onto the shredder infeed conveyor of the shredder. These or other cranes equipped with magnets or grapples then transfer the material from the stockpiles to the shredder infeed conveyor.

The space available for stockpiling raw material is limited, and therefore, the material is typically processed within several days of its receipt. The raw material stockpiles will not be used for long term storage.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

The following BMPs will be used to identify and control (as needed) Visible Emissions from raw material unloading and handling.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the raw material unloading and handling areas for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized as needed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. Areas adjacent to raw material handling operations will be included in the watering and sweeping of paved areas described in Section 3.7.

3.2 **Shredder Enclosure**

The shredder is located in a partial enclosure with solid wall panels, open metal grating on the roof and an open area at ground level. Shredder emissions are captured by a hood located over the top of the shredder. Captured emissions are routed to the emission control system. Captured emissions are not fugitive emissions.

Potential sources of fugitive emissions inside the shredder enclosure are limited to three conveyor transfer points and potential uncaptured emissions from the shredder operation.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the shredder enclosure for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. If Visible Emissions are observed exiting the shredder enclosure, operators will perform a system inspection to identify the potential source and cause of the Visible Emissions and take appropriate corrective actions, which may include a change in the shredder water injection rate or shredder emissions capture and control system operating parameters.

3.3 Material Transfer Points

Material is primarily transported through the Ferrous and Non-Ferrous processes on a series of belt conveyors. A material transfer point is the point at which material from an upstream conveyor is transferred to a downstream conveyor, the point at which an upstream conveyor feeds a piece of processing equipment, or the point at which a piece of processing equipment discharges material onto a takeaway conveyor. Visible Emissions from a transfer point may occur when the material being transferred has a high concentration of fine material and low moisture content.

Select conveyors that transfer streams containing significant amounts of light material that could easily become windblown will be equipped with covers.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the facility areas with the highest potential for fugitive particulate. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii.

3.4 Intermediate and Product Stockpiles

The space available for stockpiling intermediates and products is limited and, therefore, these materials are typically processed or shipped off site regularly. These stockpiles will not be used for long term storage of materials.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material stockpiles for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. With the exception of the Raw Material stockpiles, the two Ferrous Metal Stockpiles, and the ASR stockpile, all stockpiles identified in facility emission estimates will have solid partitions on three sides.
- iii. Areas adjacent to stockpiles will be included in the watering and sweeping of paved areas described in Sections 3.7.

3.5 Non-Ferrous Processing Building

Non-Ferrous material processing is performed in the Non-Ferrous Processing Building. The building is equipped with four identical baghouses that collect dust from specific points in the process using a network of duct work and hoods. Dust captured in the collection system is routed to a baghouse filter. Treated air from three of the four baghouses is exhausted back into the building. The treated air from the fourth baghouse is discharged to the atmosphere. Particulate emissions in the baghouse exhaust stream that is discharged to the atmosphere are not fugitive emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of conveyor wall openings, personnel doors, and other openings in the Non-Ferrous Processing Building for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. If Visible Emissions are observed from the building openings, the building will be inspected to ensure that personnel and service doors are closed when not in use and that the baghouses are functioning properly. Material removed by the baghouses is collected on a covered conveyor and transferred to the waste material stockpile.

3.6 Material Loadout

Material loadout occurs when stockpiled material is transferred to trucks using a rubber-tired loader, or material handler.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material loadout areas for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles and adjacent loadout areas if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material to minimize the potential for Visible Emissions.
- ii. Areas adjacent to material loadout activity will be included in the watering and sweeping of paved areas described in Sections 3.7.

3.7 Paved Areas

The majority of the facility is paved with concrete or asphalt. The areas with the highest potential for fugitive particulate are the primary traffic routes used by vehicles delivering raw material or transporting materials from the site.

Application of water will be limited on days when precipitation exceeds 1/4" or when temperatures are near freezing and water application may create unsafe conditions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. Heavily traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day.

B. Fugitive Particulate Control Measures:

- i. Water will be applied to heavily used paved areas at least once per day, subject to the weather conditions identified above. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).

- ii. Sweeping of designated heavy traffic areas will occur at least once every other day, based on daily observations and subject to the weather conditions identified above.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation).

- iii. Rumble strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

3.8 Unpaved Areas

Limited areas within the Facility that are not paved with concrete or asphalt are covered with compacted asphalt grindings or similar material. Fugitive particulate emissions from unpaved areas are associated with vehicle use.

Application of water will be limited on days when precipitation exceeds ¼" or when temperatures are near freezing and water application may create unsafe conditions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. Heavily used areas will be observed three times per day and lightly used areas will be observed once per day.

B. Fugitive Particulate Control Measures:

- i. Water will be applied to heavily used unpaved areas at least once per day subject to the weather conditions identified above. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).

- ii. If Visible Emissions are observed from unpaved areas during weather conditions that prohibit water application, alternative control measures will be evaluated. Evaluation and potential application of alternative control measures will be based on operating experience and routine observations. Alternative control measures may include, but are not limited to minimizing activity in unpaved areas, application of surfactant or oil-based coatings prior to winter conditions, or placement of additional asphalt grindings or similar material.

3.9 Downwind Property Line and Barge Loading Area

For the purposes of this Program, the ‘property line,’ as referenced in 35 IAC 212.301, is the Site Boundary identified in Figure 2-2 (i.e. property line of the industrial campus).

Property line observations will be limited to the portion(s) of the industrial campus property lines that are, at the time of the observation, downwind from GIII operations and the barge loading area (when a barge is actively being loaded at the time of the observation).

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations at least once per day of the barge loading area (when barge loading is occurring at the time of the observation) and the downwind property line(s) of the industrial campus for the presence of Visible Emissions and record the results on a VEOC form.

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4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

The following provides an additional description of the BMPs that will be implemented under this Program.

4.1 Periodic Visible Emissions Observations

As described in Section 3, designated trained personnel will make periodic observations three times per day for the presence of Visible Emissions and have the authority to implement fugitive particulate control measures as may be required. Observations will be made three times per day

Records of observations and dust control measures implemented (if any), are recorded on a VEOC form (see Section 5.2).

4.1.1 Employee Observations

In addition to the designated observations described above, other employees will be trained to identify Visible Emissions when performing their assigned duties. If Visible Emissions are identified, the employee will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures. Employee Observations will not be recorded on a VEOC form.

4.2 Meteorological Data Station

An onsite meteorological data station (met station) will be installed and operated to record hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts. The met station will be centrally located at a minimum height pursuant to applicable USEPA protocols and guidance. Met data will be periodically downloaded and stored electronically at the Facility.

4.3 Dust Boss

Dust Bosses are water atomizing cannons like those pictured to the right. The barrel of the cannon is equipped with a fan to force air through the barrel of the cannon at an elevated velocity. Water is injected into the air stream at the discharge of the barrel through specially designed atomizing nozzles. The velocity of the air stream directs the water droplets toward the source of the fugitive particulate matter. Water droplets impact suspended particulate, increasing the density of the particulate matter causing it to settle to the ground via gravity. Dust Bosses are used to control fugitive particulate emissions from conveyors, stockpiles and roadways.



The cloud of atomized water above a particulate emission source may be mistaken for particulate matter by uninformed observers. The cloud of water droplets should not be read as particulate matter if crossing the property line. Dust Bosses can be located at ground level, building rooftops or on supported columns in order to distribute the atomized water over the desired area(s). Figure 4-1 identifies the anticipated location of Dust Bosses. The deployment of Dust Bosses will be modified as may be required based on Facility operating experience.

4.4 Paved and Unpaved Areas

Paved and unpaved areas (including traffic routes) are routinely treated using water application and sweeping unless observed pavement conditions indicate it is unnecessary, such as following a precipitation event.

Application of water will be limited by near freezing temperatures in order to maintain safe operating conditions.

4.4.1 Water Truck for Paved and Unpaved Areas

A water truck owned and operated by GIII will be used to periodically apply water to accessible paved and unpaved areas. The water truck will make routine rounds in the areas identified in Figure 4-2. Application of water to paved and unpaved areas will be documented on a log.

4.4.2 Sweeper for Paved Areas

A motorized sweeper owned and operated by GIII will be used to periodically sweep paved areas. The sweeper will make routine rounds approximately every other day in accessible areas.

Routine sweeping of paved areas will be supplemented by additional sweeping as indicated by Visible Emissions observations described in Section 4.1.

Sweeping of paved areas will be documented in a log.

4.4.3 Wheel Cleaning Station

Rumble strips will be installed on the approach to the outbound truck scale requiring large vehicles to pass over the control device before entering the scale. The purpose of the rumble strips is to reduce the amount of loose dirt and debris on truck and trailer tires to reduce potential for vehicle track out.

The wheel cleaning station will be routinely inspected, and accumulated material removed on a regular basis to ensure effective operation of the cleaning station.

4.5 Other Fugitive Particulate Control Measures

The following identifies other fugitive particulate control measures that will be implemented at this Facility.

4.5.1 Shredder Water Injection

The shredder will be equipped with water injection as a mitigation measure for deflagrations in the shredder. Water injected into the shredder flashes steam and fills the voids in the shredder body displacing oxygen in ambient air. Removal of oxygen from the shredder will reduce the potential for deflagrations. Although it is not used as a control measure, wetting the material in the shredder has a secondary effect of minimizing the potential for fugitive particulate emissions from the shredder material discharge conveyor and other downstream conveyors.

The shredder operator will adjust the water injection rate as indicated by the rate, type and characteristics of the material being processed. Adjustments to the shredder water injection rate are part of routine shredder operation and will not be recorded under this Program.

4.5.2 Shredder Emission Control System

The shredder emission control system consists of an emissions collection hood, cyclone for removal of large pieces of solid matter, a roll media filter for particulate control, and a regenerative thermal oxidizer and packed tower scrubber. Potential particulate emissions from the shredder emission control system are not fugitive emissions, because the shredder emission control system is assigned a permitted emission rate, and is subject to specific opacity and mass emission limits identified in the Facility construction/operation permit.

4.5.3 Non-Ferrous Processing Building Baghouse

Potential particulate emissions from the equipment located in the Non-Ferrous Processing Building are collected and controlled by four identical cartridge style baghouses. Three of the baghouses collect particulate emissions from various dust pickup points in the process, remove entrained particulate, and exhaust treated air back into the building. There are no emissions to the atmosphere from the three baghouses that exhaust back into the building. The fourth baghouse collects particulate emissions from various dust pickup points in the process, removes entrained particulate and exhausts treated air to the outside atmosphere.

Particulate emissions from the baghouse that exhausts to the outside atmosphere are not considered fugitive emissions because the dust collector is assigned a permitted emission rate and is subject to specific opacity and mass emission limits identified in the facility construction/operation permits.

Fine particulate matter removed by the baghouses is collected in sealed hoppers and periodically conveyed to the Non-Ferrous waste material stockpile via covered conveyor.

4.5.4 Conveyor Covers

Select conveyors are be equipped with covers to minimize the potential for windblown material.

4.6 Maintenance of Fugitive Particulate Control Equipment

Maintenance of equipment used for fugitive particulate control, including Dust Bosses, water truck and sweeper, is performed by on-site personnel in accordance with manufacturers recommendations.

5.0 RECORDKEEPING

It should be noted that the description of the information to be captured in the forms described herein are considered preliminary. This Program will be updated to reflect as-built conditions.

The following records will be maintained pursuant to this Program in accordance with permit recordkeeping requirements.

5.1 Meteorological Data

Meteorological data will be recorded and maintained electronically on site. Data will include hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts.

5.2 Visible Emissions Observation and Control Form

A Visible Emissions Observation and Control (VEOC) Form will be used to record the results of routine Visible Emissions observations and corresponding control measures applied. Employee Observations will not be recorded.

The VEOC form will include the following information:

- Date/Time
- Name of Observer
- Area(s) Observed
 - Time of Observation
 - Visible Emissions Observed – Yes/No
 - > Approximate migration distance from source (ft)
 - Controls Required (Yes/No)
 - > If Yes, identify Control(s) Implemented

The VEOC form is not attached to this document and will be included in an amended program that will reflect as-built site conditions.

5.3 Water Truck Log

A log of water truck use will be maintained by the operator to record water applications to paved and unpaved areas. This log will include:

- Date/Time
- Name of Water Truck Operator
- Reason for Water Application
 - Scheduled or
 - Corrective Action in response to an Employee Observation

- Area(s) of Water Application
 - Time of Application
 - Approximate Amount of Water Applied (gallons)

5.4 Sweeper Log

A log of sweeper operation will be maintained by the operator to record sweeping events. This log will include:

- Date/Time
- Name of Sweeper Operator
- Reason for Sweeping
 - Scheduled or
 - Corrective Action in response to an Employee Observation
- Area(s) Swept
 - Time of Sweeping

5.5 Dust Bosses

A log of Dust Boss operation will be maintained. This log will include:

- Date/Time(s) of Dust Boss Operation
- Reason for Operation
 - Proactive or
 - Corrective Action in response to an Employee Observation

5.6 Fugitive Particulate Control Equipment Maintenance

Records of maintenance performed on fugitive particulate control equipment will be maintained by the Facility in accordance with permit recordkeeping requirements.

6.0 PROGRAM AMENDMENT

This Fugitive Particulate Operating Program shall be amended from time to time so that the operating program is current. Program amendments will be submitted to the Illinois EPA within thirty (30) days of such amendment. Any future revision to this Program made by GIII is automatically incorporated by reference as an enforceable condition of the Facility construction/operation permit, unless it is expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies GIII of a deficiency with any revision to the Program, GIII will revise and re-submit the Fugitive Particulate Operating Program within thirty (30) days of receipt of notification to address the deficiency.

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Fugitive Particulate Operating Program

**General III, LLC
11600 South Burley
Chicago, Illinois 60614**

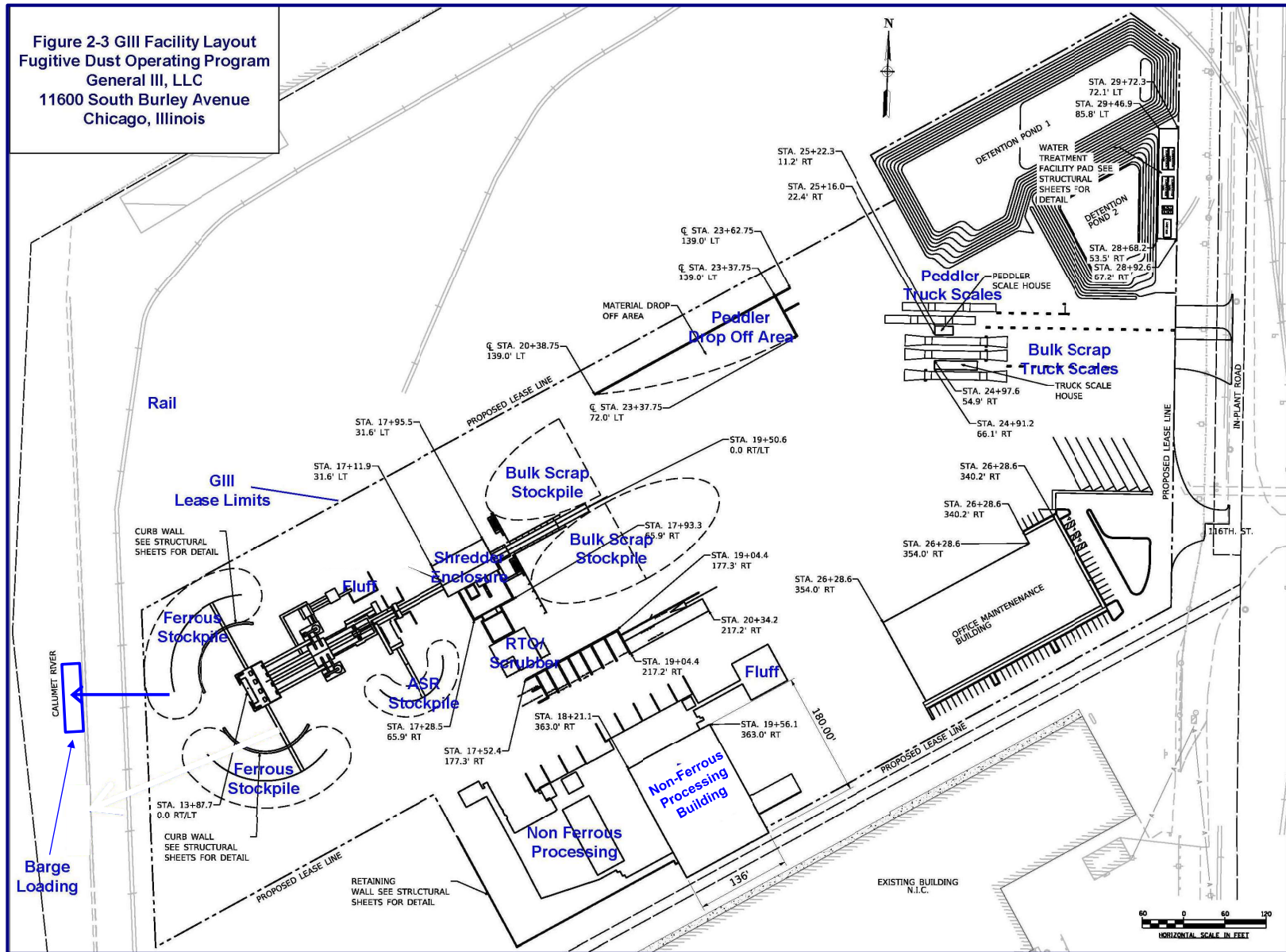
FIGURES

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Figure 2-3 GIII Facility Layout
Fugitive Dust Operating Program
General III, LLC
11600 South Burley Avenue
Chicago, Illinois



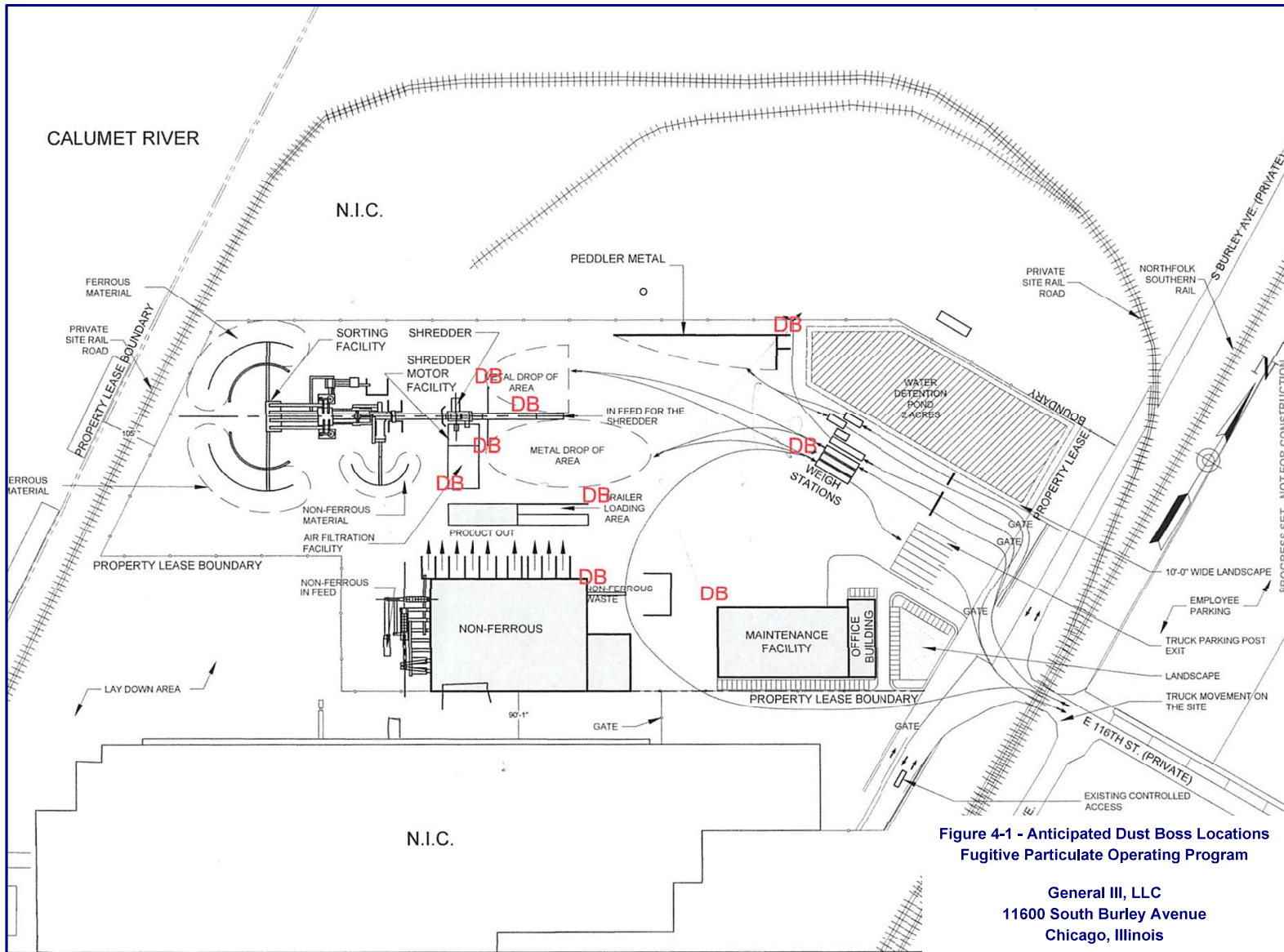
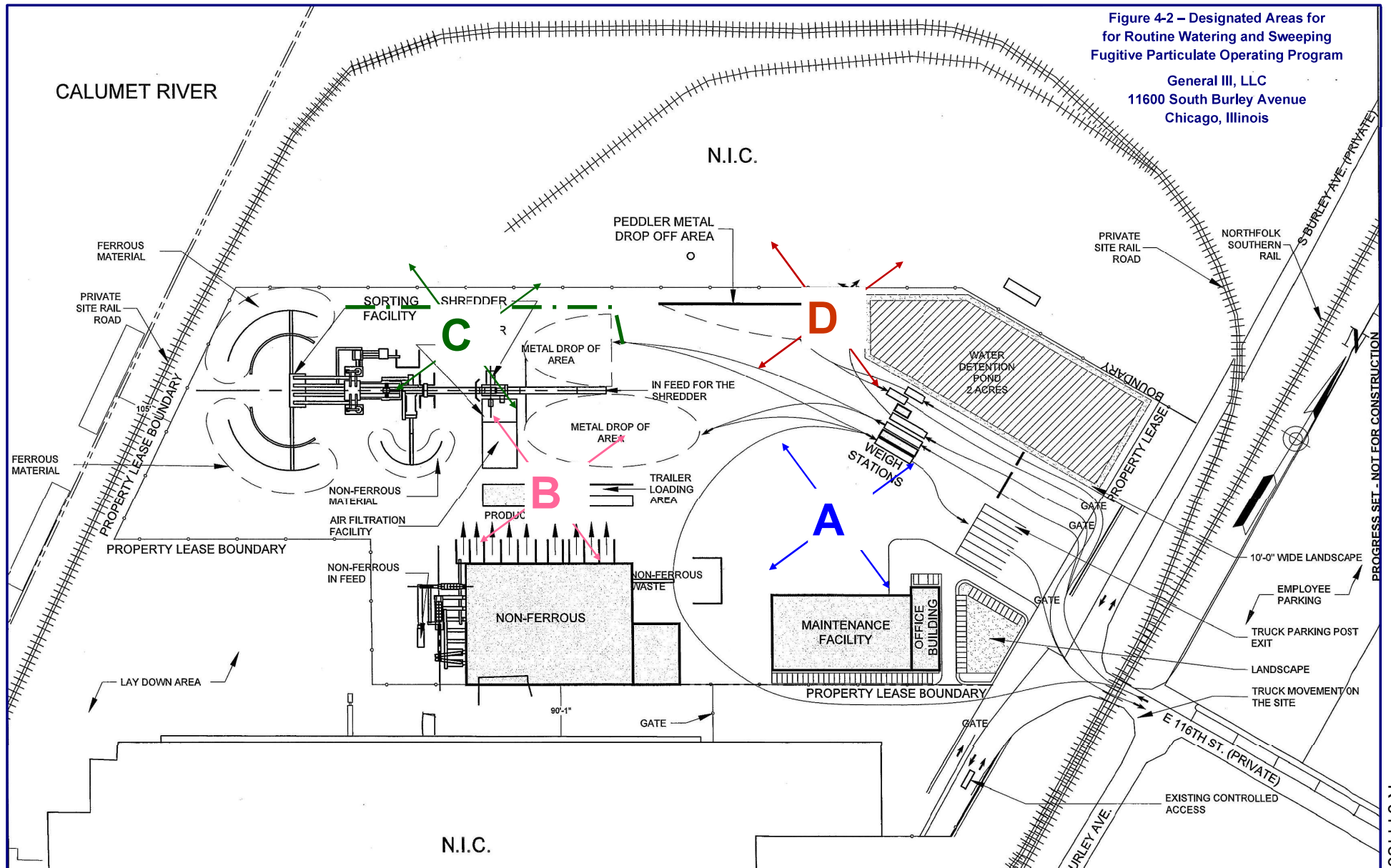


Figure 4-2 – Designated Areas for
for Routine Watering and Sweeping
Fugitive Particulate Operating Program

General III, LLC
11600 South Burley Avenue
Chicago, Illinois



Layman, Robb

From: Jones, Eric E.
Sent: Tuesday, September 1, 2020 11:54 AM
To: Layman, Robb
Subject: FW: Xerox Scan
Attachments: Xerox Scan_06222020121933.pdf

-----Original Message-----

From: Jones, Eric E.
Sent: Monday, June 22, 2020 10:53 AM
To: John Pinion <jpinion@rka-inc.com>
Subject: FW: Xerox Scan

-----Original Message-----

From: P5325DA091551@illinois.gov <P5325DA091551@illinois.gov>
Sent: Monday, June 22, 2020 12:21 PM
To: Jones, Eric E. <Eric.E.Jones@Illinois.gov>
Subject: Xerox Scan

Please open the scanned attachment

Number of Images: 28
Attachment File Type: PDF

Device Name: P5325DA091551
Device Location: X28 4th FL BOA

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March 20, 2020

R17421-7.2

Mr. Eric Jones
Illinois Environmental Protection Agency - Bureau of Air
1021 North Grand Avenue East
Springfield, IL 62702

**Fugitive Particulate Operating Program for a
Scrap Metal Recycling Facility
General III, LLC – 11600 South Burley - Chicago, Illinois**

Dear Mr. Jones:

Please find attached a revised copy of the Fugitive Particulate Operating Program for the proposed General III, LLC (GIII) Scrap Metal Recycling Facility located in Cook County at 11600 South Burley Avenue in Chicago, Illinois. This revised copy of the Program addresses your verbal comments from March 19, 2020.

An electronic copy of the above referenced document has also been forwarded to you and Mr. Barria.

If you have any questions or need any additional information, please don't hesitate to contact us at 630-393-9000.

Yours very truly,
RK & Associates

A handwritten signature in dark ink, appearing to read "John G. Pinion".

John G. Pinion
Associate Engineer

cc: Mr. Jim Kallas – General III, LLC – Chicago, Illinois (via e-mail)
Mr. German Barria – IEPA – Springfield, Illinois (hard copy and via-e-mail)

*When treatments
not conducted*

**Fugitive Particulate Operating Program
General III, LLC – 11600 S Burley Avenue - Chicago, Illinois
March 20, 2020**

R17421-7.2

Prepared for:
**General III, LLC
1909 North Clifton Avenue
Chicago, Illinois 60614
Attn: Mr. Jim Kallas**

Prepared by:
**John G. Pinion
Principal Engineer
RK & Associates, Inc.**



**2 South 631 Route 59
Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000
Fax: 630-393-9111**



General III, LLC
Fugitive Particulate Operating Program

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Facility Location and Contact Information	1
1.2 Illinois Environmental Protection Agency Fugitive Emission Regulatory Requirements	2
1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301	2
1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program	2
1.3 Definition of Visible Emissions	2
1.4 Site Boundaries	2
2.0 FACILITY SITE MAP	3
3.0 FACILITY OPERATIONS AND APPLICATION OF	5
BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL	
3.1 Raw Material Unloading/Handling	6
3.2 Shredder Enclosure	7
3.3 Material Transfer Points	8
3.4 Intermediate and Product Stockpiles.....	8
3.5 Non-Ferrous Processing Building	9
3.6 Material Loadout	10
3.7 Paved Areas	10
3.8 Unpaved Areas	11
3.9 Downwind Property Line and Barge Loading Area	13
4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL	15
4.1 Periodic Visible Emissions Observations	15
4.1.1 Employee Observations	15
4.2 Meteorological Data Station	15
4.3 Dust Boss	15
4.4 Paved and Unpaved Areas	16
4.4.1 Water Truck for Paved and Unpaved Areas	16
4.4.2 Sweeper for Paved Areas	16
4.4.3 Wheel Cleaning Station	16

4.5 Other Fugitive Particulate Control Measures	17
4.5.1 Shredder Water Injection	17
4.5.2 Shredder Emission Control System	17
4.5.3 Non-Ferrous Building Baghouse	17
4.5.4 Conveyor Covers	18
4.6 Maintenance of Fugitive Particulate Control Equipment	18
5.0 RECORDKEEPING	19
5.1 Meteorological Data	19
5.2 Visible Emissions Observation and Control Form	19
5.3 Water Truck Log	19
5.4 Sweeper Log	20
5.5 Dust Boss Log	20
5.6 Fugitive Particulate Control Equipment Maintenance	20
6.0 PROGRAM AMENDMENT	21

TABLES

Table 3-1 Summary of Facility Operations and Best Management Practices for Fugitive Dust Control	6
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FIGURES

Figure 2-1 Facility Location Map
Figure 2-2 Facility Layout Map
Figure 2-3 Facility Layout Drawing
Figure 4-1 Anticipated Dust Boss Locations
Figure 4-2 Designated Areas for Routine Watering and Sweeping



1.0 INTRODUCTION

This Fugitive Particulate Operating Program (Program) has been prepared for the General III, LLC (GIII) scrap metal recycling facility as a condition of Illinois Environmental Protection Agency (IEPA) Construction Permit No. 19090021-~~(Condition 9.e.)~~ *may Δ*

GIII is a ~~state-of-the-art~~ recycling facility located in the ~~heart of~~ an existing established industrial district ~~well buffered from residential areas~~. GIII is configured to process 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. GIII will receive and shred mixed recyclable metal in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, and shipment of finished products to customers.

The objective of this Program is to identify, monitor, and treat (as may be necessary) sources of fugitive particulate emissions. GIII is implementing this Program ~~as part of GIII's commitment to be a good neighbor, a good steward of the environment, and to meet or exceed applicable environmental standards (identified in Section 1.2) to be protective of human health and the environment.~~ *regulation*

1.1 Facility Location and Contact Information

<u>Business Name:</u>	General III, LLC
<u>Source Location:</u>	11600 South Burley – Chicago, Illinois 60617 Hyde Park Township, Cook County Illinois
<u>Latitude/Longitude</u>	41.685201° N / -87.545847° W – Approximate Location of Front Gate
<u>Office/Mailing Address:</u>	1909 N. Clifton Avenue – Chicago, Illinois 60614
<u>Authorized Representative Responsible for this Program:</u>	Mr. Jim Kallas - Environmental Manager 847-508-9170 – jimkallas@general-iron.com
<u>IEPA Site ID No.:</u>	031600SFX
<u>SIC Code:</u>	5093 – Scrap and Waste Materials
<u>NAICS Code:</u>	423930 – Recyclable Material Merchant Wholesalers

1.2 Illinois Environmental Protection Agency - Fugitive Emission Regulatory Requirements

1.2.1 General Limitation for Fugitive Particulate Matter - 35 IAC 212.301

GIII is subject to the general limitation for fugitive particulate matter identified in 35 IAC 212.301, which requires that:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program

Pursuant to 35 IAC 212.302, a Fugitive Particulate Operating Program is required for any facility with operations belonging to specified groups of Standard Industrial Classification (SIC) Codes **and** that are located within a specified area. GIII is located in Cook County, which is a specified area under 35 IAC 212.302; however, GIII's SIC Code (5093 Scrap and Waste Materials) is **not** among the specified SIC codes. Therefore, GIII is not subject to a requirement to have a Fugitive Particulate Operating Program.

Although not required by IEPA regulations, GIII has voluntarily agreed to prepare and implement this Fugitive Particulate Operating Program to describe the best management practices that will be used to minimize potential fugitive particulate emissions and ensure compliance with 35 IAC 212.301.

1.3 Definition of Visible Emissions

For the purposes of this Program, the presence of Visible Emissions means the existence of a visible fugitive particulate plume that threatens to cross the Industrial Campus property line.

Fugitive particulate does not include steam (water vapor), engine combustion exhaust, and particulate matter emitted from a properly permitted exhaust stacks with or without a pollution control device because each permitted exhaust point has a separate opacity limit and particulate mass emission limit included in the facility construction/operation permit.

1.4 Site Boundaries

For the purposes of this Program, the 'property line,' as referenced in 35 IAC 212.301, is the Site Boundary identified in Figure 2-2 (i.e. property line of the industrial campus).

2.0 FACILITY SITE MAP

The location of GIII is shown on Figures 2-1 and 2-2. GIII operates on approximately 25 acres of leased property within an existing industrial campus located at 11600 South Burley Avenue in Chicago, Illinois. Four other affiliated material recycling businesses are located within the industrial campus.

The GIII scrap metal recycling facility is shown on Figure 2-3. The Facility Site Map indicates the locations of the Facility boundaries, buildings, location of material handling and processing areas, shredder enclosure, shredder emission control system, stockpiles, truck scales and facility vehicle entrance.

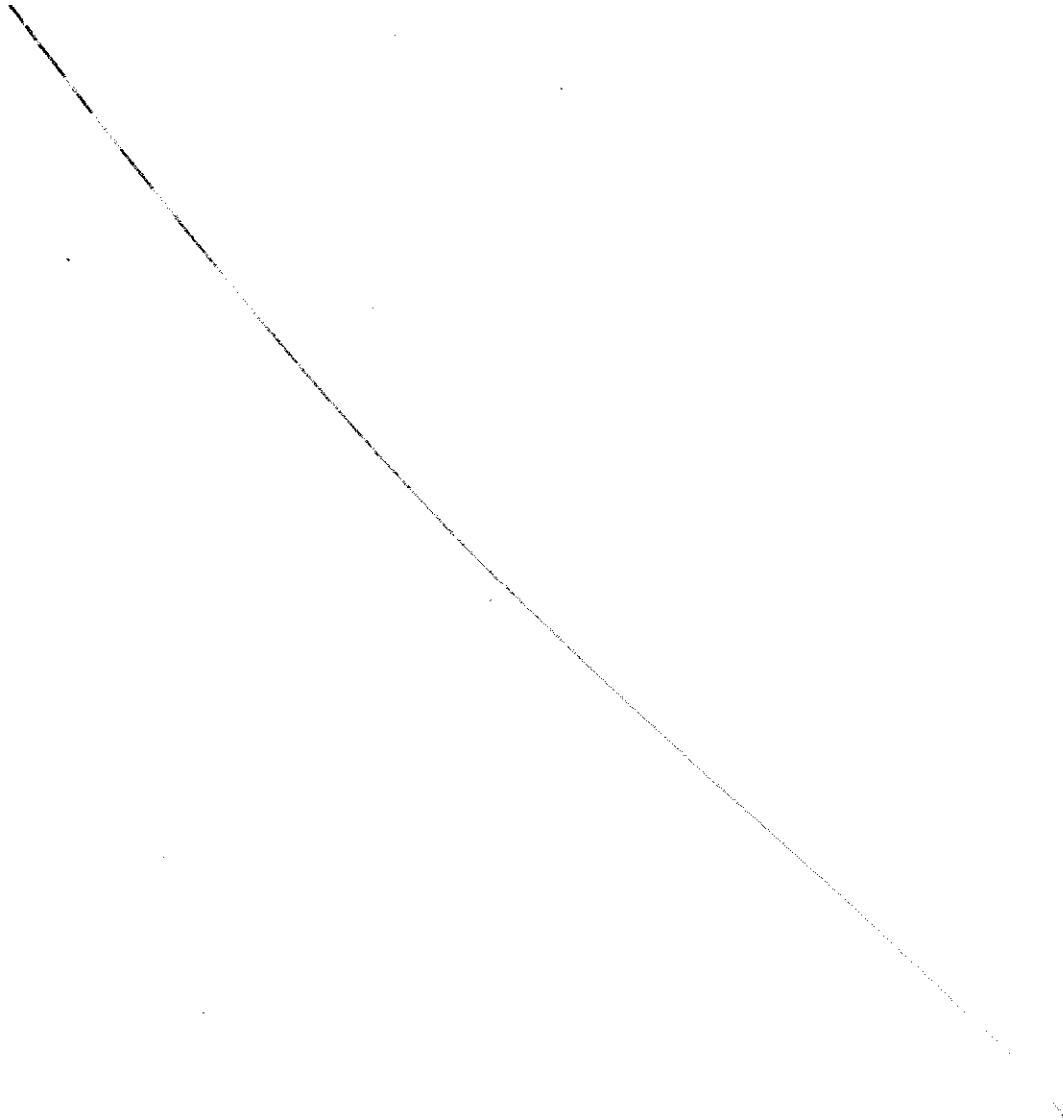
The vast majority of the Facility is paved with concrete or asphalt pavement. The limited area that is not paved is covered with compacted asphalt grindings or similar material.

Specify



& ASSOCIATES, INC.

Facility Site Map



3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

GIII is a state-of-the-art recycling facility located in the heart of an existing established industrial district well buffered from residential areas. GIII is configured to process up to 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, stockpiling and off-site shipment of finished products. *Redundant*

Raw materials are delivered to the facility from a variety of sources including retail, commercial/industrial accounts via trucks or contract haulers and peddlers via peddler vehicles. Peddlers and semi-trucks entering the facility first pass through a truck scale.

Semi-trucks are then directed to a material staging area near the raw material stockpiles. Designated Facility personnel inspect all loads for unauthorized materials in accordance with Facility procedures. After unloading, the semi-trucks and peddler vehicles exit the Facility after passing over the appropriate truck scale. *In this respect, the facility is subject to a Feed Stock Management Plan requirement in the permit.*

The shredding process produces ferrous metal and Automobile Shredder Residue (ASR) which contains non-metallic material, non-ferrous metal and a limited amount of ferrous metal. Ferrous metal is processed to remove non-metallic material through a series of material handling steps in the Ferrous Metal Processing system to produce clean ferrous metal.

The ASR is directed to a stockpile for temporary storage prior to processing. ASR is transferred a short distance from the ASR stockpile to the Non-Ferrous Metal Processing system using a rubber-tired loader. ASR is processed by a variety of advanced material handling and separation equipment in the Non-Ferrous Metal Processing system to recover various sizes and grades of non-ferrous metals. Non-metallic material removed by the Non-Ferrous Metal Processing system is directed to a stockpile prior to being loaded into semi-trucks for off-site disposal at an appropriately licensed landfill.

Table 1 summarizes facility operations with the potential to generate fugitive particulate and the Best Management Practices (BMPs) that will be utilized to achieve compliance with 35 IAC 212.301. For the purposes of this Program, compliance with 35 IAC 212.301 is determined at the Site Boundary (i.e. the property line of the industrial campus as shown on Figure 2-2). Detailed descriptions of the BMPs are presented in Section 4.0.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

Table 1 – Summary of Facility Operations and Best Management Practices for Fugitive Particulate Control

Review Table

Operation	Best Management Practices				
	Periodic Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Potential Additional BMPs That May Be Used
Raw Material Unloading/Handling	X	X	X		
Shredder Enclosure	X				Water injection/shredder emissions capture and control system
Material Transfer Points	X	X			Conveyor covers on selected conveyors
Material Stockpiles	X	X	X		Partial enclosures (side walls) on selected stockpiles
Non-Ferrous Processing Building					Enclosed in a building with building exhaust treated by dust collectors
Material Loadout	X	X	X		Dedicated water spray if needed
Traffic Areas – Paved Areas	X	X	X		Water truck as needed
Traffic Areas – Unpaved Areas	X	X		X	Water truck as needed
Property Lines	X				Identify the source(s) of visible emissions and take corrective actions as described above.

add enclosure column specifying anything in operation column that is enclosed or flared

** address entrance*

3.1 Raw Material Unloading/Handling

Raw scrap in bulk trucks (semi-trailers) is dumped on the ground near the shredder infeed conveyor where cranes equipped with magnets or grapples sort through the material and place it on a raw material stockpile or onto the shredder infeed conveyor of the shredder. These or other cranes equipped with magnets or grapples then transfer the material from the stockpiles to the shredder infeed conveyor.

The space available for stockpiling raw material is limited, and therefore, the material is typically processed within several days of its receipt. The raw material stockpiles will not be used for long term storage.

**Facility Operations and Application of
 Best Management Practices for Fugitive Particulate Control**

The following BMPs will be used to identify and control (as needed) Visible Emissions from raw material unloading and handling.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the raw material unloading and handling areas for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

*at least
at least*

** obs
rec
mgr*

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized as needed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions.
- ii. Areas adjacent to raw material handling operations will be included in the watering and sweeping of paved areas described in Section 3.7.

** apply
when*

** when*

3.2 Shredder Enclosure

The shredder is located in a ~~partial~~ ^{an} enclosure with solid wall panels, open metal grating on the roof and an ~~open area at ground level~~ ^{rubber sheeting at}. Shredder emissions are captured by a hood located over the top of the shredder. Captured emissions are routed to the emission control system. Captured emissions are not fugitive emissions.

3 panel solid roof

a capture system consisting of the enclosure and hood

Potential sources of fugitive emissions inside the shredder enclosure are limited to three conveyor transfer points and potential uncaptured emissions from the shredder operation.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the shredder enclosure for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

*O
V
M*

B. Fugitive Particulate Control Measures:

- i. If Visible Emissions are observed exiting the shredder enclosure, operators will perform a system inspection to identify the potential source and cause of the Visible Emissions and take appropriate corrective actions, which may include a change in the shredder water injection rate or shredder emissions capture and control system operating parameters.

Ø

** must
change
to be
accurate*

ET/KM

EE

** Ø*

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control****3.3 Material Transfer Points**

Material is primarily transported through the Ferrous and Non-Ferrous processes on a series of belt conveyors. A material transfer point is the point at which material from an upstream conveyor is transferred to a downstream conveyor, the point at which an upstream conveyor feeds a piece of processing equipment, or the point at which a piece of processing equipment discharges material onto a takeaway conveyor. Visible Emissions from a transfer point may occur when the material being transferred has a high concentration of fine material and low moisture content.

ES [Select conveyors that transfer streams containing significant amounts of light material that could easily become windblown will be equipped with covers. *which identify now*

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures. *1x/at each pt* *ORM*

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist the facility areas with the highest potential for fugitive particulate. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions. *applied when?*

ii ? what goes here?

3.4 Intermediate and Product Stockpiles

The space available for stockpiling intermediates and products is limited and, therefore, these materials are typically processed or shipped off site regularly. These stockpiles will not be used for long term storage of materials.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material stockpiles for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures. *1x P pile* *ORM*

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control**

B. Fugitive Particulate Control Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material being transferred to minimize the potential for Visible Emissions. *apply when*
- ii. With the exception of the Raw Material stockpiles, the two Ferrous Metal Stockpiles, and the ASR stockpile, all stockpiles identified in facility emission estimates will have solid partitions on three sides. *Which stock piles identify*
- iii. Areas adjacent to stockpiles will be included in the watering and sweeping of paved areas described in Sections 3.7.

3.5 Non-Ferrous Processing Building

Non-Ferrous material processing is performed in the Non-Ferrous Processing Building. The building is equipped with four identical baghouses that collect dust from specific points in the process using a network of duct work and hoods. Dust captured in the collection system is routed to a baghouse filter. Treated air from three of the four baghouses is exhausted back into the building. The treated air from the fourth baghouse is discharged to the atmosphere. Particulate emissions in the baghouse exhaust stream that is discharged to the atmosphere are not fugitive emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of conveyor wall openings, personnel doors, and other openings in the Non-Ferrous Processing Building for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures. *what other openings how many are there*

B. Fugitive Particulate Control Measures:

- i. ~~If Visible Emissions are observed from the building openings, the building will be inspected to ensure that personnel and service doors are closed when not in use and that the baghouses are functioning properly. Material removed by the baghouses is collected on a covered conveyor and transferred to the waste material stockpile.~~ *shall be P shall be*

3.6 ~~Truck~~ Material Loadout

Material loadout occurs when stockpiled material is transferred to trucks using a rubber-tired loader, or material handler. *product & Sluff*

*is there just one load out for each?
just 2 loadouts?*

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control****A. Inspections/Observations:**

- i. Trained personnel will conduct visual observations of material loadout areas for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures.

*at each loadout**OR M***B. Fugitive Particulate Control Measures:**

- i. Dust Boss water atomizers will be positioned to mist stockpiles and adjacent loadout areas if Visible Emissions are observed. The water applied by the Dust Boss will increase the moisture content of the material to minimize the potential for Visible Emissions.
- ii. Areas adjacent to material loadout activity will be included in the watering and sweeping of paved areas described in Sections 3.7.

*when***3.7 Paved Areas**

The majority of the facility is paved with concrete or asphalt. The areas with the highest potential for fugitive particulate are the primary traffic routes used by vehicles delivering raw material or transporting materials from the site.

Application of water will be limited on days when precipitation exceeds 1/4" or when temperatures are near freezing and water application may create unsafe conditions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. Heavily traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day.

*where on route**upline on route**what does it mean**OR M***B. Fugitive Particulate Control Measures:**

- i. Water will be applied to heavily used paved areas at least once per day, subject to the weather conditions identified above. Additional applications may be made in response to Employee Observations.

*delete or delete**What about non-heavily travelled?*

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).

also when not applied + why

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control**

- ii. Sweeping of designated heavy traffic areas will occur at least once ^{per} every other day, based on daily observations and subject to the weather conditions identified above.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation).

- iii. Rumble strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

3.8 Unpaved Areas

Limited areas within the Facility that are not paved with concrete or asphalt are covered with compacted asphalt grindings or similar material. Fugitive particulate emissions from unpaved areas are associated with vehicle use.

Application of water will be limited on days when precipitation exceeds 1/4" or when temperatures are near freezing and water application may create unsafe conditions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. Heavily used areas will be observed three times per day and lightly used areas will be observed once per day.

B. Fugitive Particulate Control Measures:

- i. Water will be applied to heavily used unpaved areas at least once per day subject to the weather conditions identified above. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).

**Facility Operations and Application of
 Best Management Practices for Fugitive Particulate Control**

- ii. If Visible Emissions are observed from unpaved areas during weather conditions that prohibit water application, alternative control measures will be evaluated. Evaluation and potential application of alternative control measures will be based on operating experience and routine observations. Alternative control measures may include, but are not limited to minimizing activity in unpaved areas, application of surfactant or oil-based coatings prior to winter conditions, or placement of additional asphalt grindings or similar material.

3.9 Downwind Property Line and Barge Loading Area

For the purposes of this Program, the 'property line,' as referenced in 35 IAC 212.301, is the Site Boundary identified in Figure 2-2 (i.e. property line of the industrial campus).

Property line observations will be limited to the portion(s) of the industrial campus property lines that are, at the time of the observation, downwind from GH operations and the barge loading area (when a barge is actively being loaded at the time of the observation).

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations at least once per day of the barge loading area (when barge loading is occurring at the time of the observation) and the downwind property line(s) of the industrial campus for the presence of Visible Emissions and record the results on a VEOC form.

Handwritten notes:
 1x/day at each propline
 how many loadings per day? shall witness X # -
 what is #

Handwritten notes:
 insert like info
 rail loading



Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

4.0 ADDITIONAL DESCRIPTION OF BEST MANAGEMENT PRACTICES FOR FUGITIVE PARTICULATE CONTROL

The following provides an additional description of the BMPs that will be implemented under this Program.

4.1 Periodic Visible Emissions Observations

As described in Section 3, designated trained personnel will make periodic observations three times per day for the presence of Visible Emissions and have the authority to implement fugitive particulate control measures as may be required. Observations will be made three times per day

Records of observations and dust control measures implemented (if any), are recorded on a VEOC form (see Section 5.2).

4.1.1 Employee Observations

In addition to the designated observations described above, other employees will be trained to identify Visible Emissions when performing their assigned duties. If Visible Emissions are identified, the employee will notify the Facility Manager who will be responsible for deployment of fugitive particulate control measures. Employee Observations will not be recorded on a VEOC form.

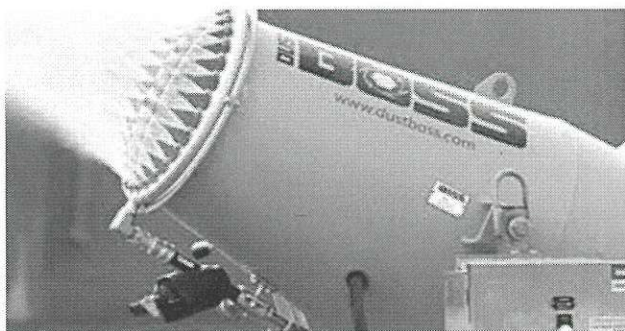
4.2 Meteorological Data Station

An onsite meteorological data station (met station) will be installed and operated to record hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts. The met station will be centrally located at a minimum height pursuant to applicable USEPA protocols and guidance. Met data will be periodically downloaded and stored electronically at the Facility.

4.3 Dust Boss

Dust Bosses are water atomizing cannons like those pictured to the right. The barrel of the cannon is equipped with a fan to force air through the barrel of the cannon at an elevated velocity. Water is injected into the air stream at the discharge of the barrel through specially designed atomizing nozzles. The velocity of the air stream directs the water droplets toward the source of the fugitive particulate matter. Water droplets impact suspended particulate,

increasing the density of the particulate matter causing it to settle to the ground via gravity. Dust Bosses are used to control fugitive particulate emissions from conveyors, stockpiles and roadways.



Keep
move
to p. 18

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

The cloud of atomized water above a particulate emission source may be mistaken for particulate matter by uninformed observers. The cloud of water droplets should not be read as particulate matter if crossing the property line. Dust Bosses can be located at ground level, building rooftops or on supported columns in order to distribute the atomized water over the desired area(s). Figure 4-1 identifies the anticipated location of Dust Bosses. The deployment of Dust Bosses will be modified as may be required based on Facility operating experience.

4.4 Paved and Unpaved Areas

Paved and unpaved areas (including traffic routes) are routinely treated using water application and sweeping unless observed pavement conditions indicate it is unnecessary, such as following a precipitation event.

Application of water will be limited by near freezing temperatures in order to maintain safe operating conditions.

4.4.1 Water Truck for Paved and Unpaved Areas

A water truck owned and operated by GIII will be used to periodically apply water to accessible paved and unpaved areas. The water truck will make routine rounds in the areas identified in Figure 4-2. Application of water to paved and unpaved areas will be documented on a log. *move to Sec 3*

4.4.2 Sweeper for Paved Areas

A motorized sweeper owned and operated by GIII will be used to periodically sweep paved areas. The sweeper will make routine rounds approximately every other day in accessible areas. *when*

Routine sweeping of paved areas will be supplemented by additional sweeping as indicated by Visible Emissions observations described in Section 4.1.

Sweeping of paved areas will be documented in a log.

4.4.3 Wheel Cleaning Station

Rumble strips will be installed on the approach to the outbound truck scale requiring large vehicles to pass over the control device before entering the scale. The purpose of the rumble strips is to reduce the amount of loose dirt and debris on truck and trailer tires to reduce potential for vehicle track out.

The wheel cleaning station will be routinely inspected, and accumulated material removed on a regular basis to ensure effective operation of the cleaning station. *keep/move to p. 11 3.7 Bill*

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

4.5 Other Fugitive Particulate Control Measures

The following identifies other fugitive particulate control measures that will be implemented at this Facility.

4.5.1 Shredder Water Injection

The shredder will be equipped with water injection as a mitigation measure for deflagrations in the shredder. Water injected into the shredder flashes steam and fills the voids in the shredder body displacing oxygen in ambient air. Removal of oxygen from the shredder will reduce the potential for deflagrations. Although it is not used as a control measure, wetting the material in the shredder has a secondary effect of minimizing the potential for fugitive particulate emissions from the shredder material discharge conveyor and other downstream conveyors.

The shredder operator will adjust the water injection rate as indicated by the rate, type and characteristics of the material being processed. Adjustments to the shredder water injection rate are part of routine shredder operation and will not be recorded under this Program.

4.5.2 Shredder Emission Control System

The shredder emission control system consists of an emissions collection hood, cyclone for removal of large pieces of solid matter, a roll media filter for particulate control, and a regenerative thermal oxidizer and packed tower scrubber. Potential particulate emissions from the shredder emission control system are not fugitive emissions, because the shredder emission control system is assigned a permitted emission rate, and is subject to specific opacity and mass emission limits identified in the Facility construction/operation permit.

4.5.3 Non-Ferrous Processing Building Baghouse

Potential particulate emissions from the equipment located in the Non-Ferrous Processing Building are collected and controlled by four identical cartridge style baghouses. Three of the baghouses collect particulate emissions from various dust pickup points in the process, remove entrained particulate, and exhaust treated air back into the building. There are no emissions to the atmosphere from the three baghouses that exhaust back into the building. The fourth baghouse collects particulate emissions from various dust pickup points in the process, removes entrained particulate and exhausts treated air to the outside atmosphere.

Particulate emissions from the baghouse that exhausts to the outside atmosphere are not considered fugitive emissions because the dust collector is assigned a permitted emission rate and is subject to specific opacity and mass emission limits identified in the facility construction/operation permits.

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control**

Fine particulate matter removed by the baghouses is collected in sealed hoppers and periodically conveyed to the Non-Ferrous waste material stockpile via covered conveyor.

4.5.4 Conveyor Covers

Select conveyors are be equipped with covers to minimize the potential for windblown material.

4.6 Maintenance of Fugitive Particulate Control Equipment

Maintenance of equipment used for fugitive particulate control, including Dust Bosses, water truck and sweeper, is performed by on-site personnel in accordance with manufacturers recommendations.

5.0 RECORDKEEPING

It should be noted that the description of the information to be captured in the forms described herein are considered preliminary. This Program will be updated to reflect as-built conditions.

The following records will be maintained pursuant to this Program in accordance with permit recordkeeping requirements. *and the as required by this*

5.1 Meteorological Data

X insert from p.14
 Meteorological data will be recorded and maintained electronically on site. Data will include hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts.

5.2 Visible Emissions Observation and Control Form

A Visible Emissions Observation and Control (VEOC) Form will be used to record the results of routine Visible Emissions observations and corresponding control measures applied. Employee Observations will not be recorded. *? what does this even mean?*

The VEOC form will include the following information:

- Date/Time
- Name of Observer
- Area(s) Observed
 - Time of Observation
 - Visible Emissions Observed – Yes/No
 - > Approximate migration distance from source (ft)
 - Controls Required (Yes/No)
 - > If Yes, identify Control(s) Implemented

other?
 The VEOC form is not attached to this document and will be included in an amended program that will reflect as-built site conditions. *controls applied y/n*

5.3 Water Truck Log

other?
 A log of water truck use will be maintained by the operator to record water applications to paved and unpaved areas. This log will include:

- Date/Time
- Name of Water Truck Operator
- Reason for Water Application
 - Scheduled or
 - Corrective Action in response to an Employee Observation

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

- Area(s) of Water Application
 - Time of Application
 - Approximate Amount of Water Applied (gallons)

Not applied

5.4 Sweeper Log

A log of sweeper operation will be maintained by the operator to record sweeping events. This log will include:

- Date/Time
- Name of Sweeper Operator
- Reason for Sweeping
 - Scheduled or
 - Corrective Action in response to an Employee Observation
- Area(s) Swept
 - Time of Sweeping

not applied

5.5 Dust Bosses

A log of Dust Boss operation will be maintained. This log will include:

- Date/Time(s) of Dust Boss Operation
- Reason for Operation
 - Proactive or
 - Corrective Action in response to an Employee Observation

not applied

5.6 Fugitive Particulate Control Equipment Maintenance

Records of maintenance performed on fugitive particulate control equipment will be maintained by the Facility in accordance with permit recordkeeping requirements.

6.0 PROGRAM AMENDMENT

This Fugitive Particulate Operating Program shall be amended from time to time so that the operating program is current. Program amendments will be submitted to the Illinois EPA within thirty (30) days of such amendment. Any future revision to this Program made by GIII is automatically incorporated by reference as an enforceable condition of the Facility construction/operation permit, unless it is expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies GIII of a deficiency with any revision to the Program, GIII will revise and re-submit the Fugitive Particulate Operating Program within thirty (30) days of receipt of notification to address the deficiency.

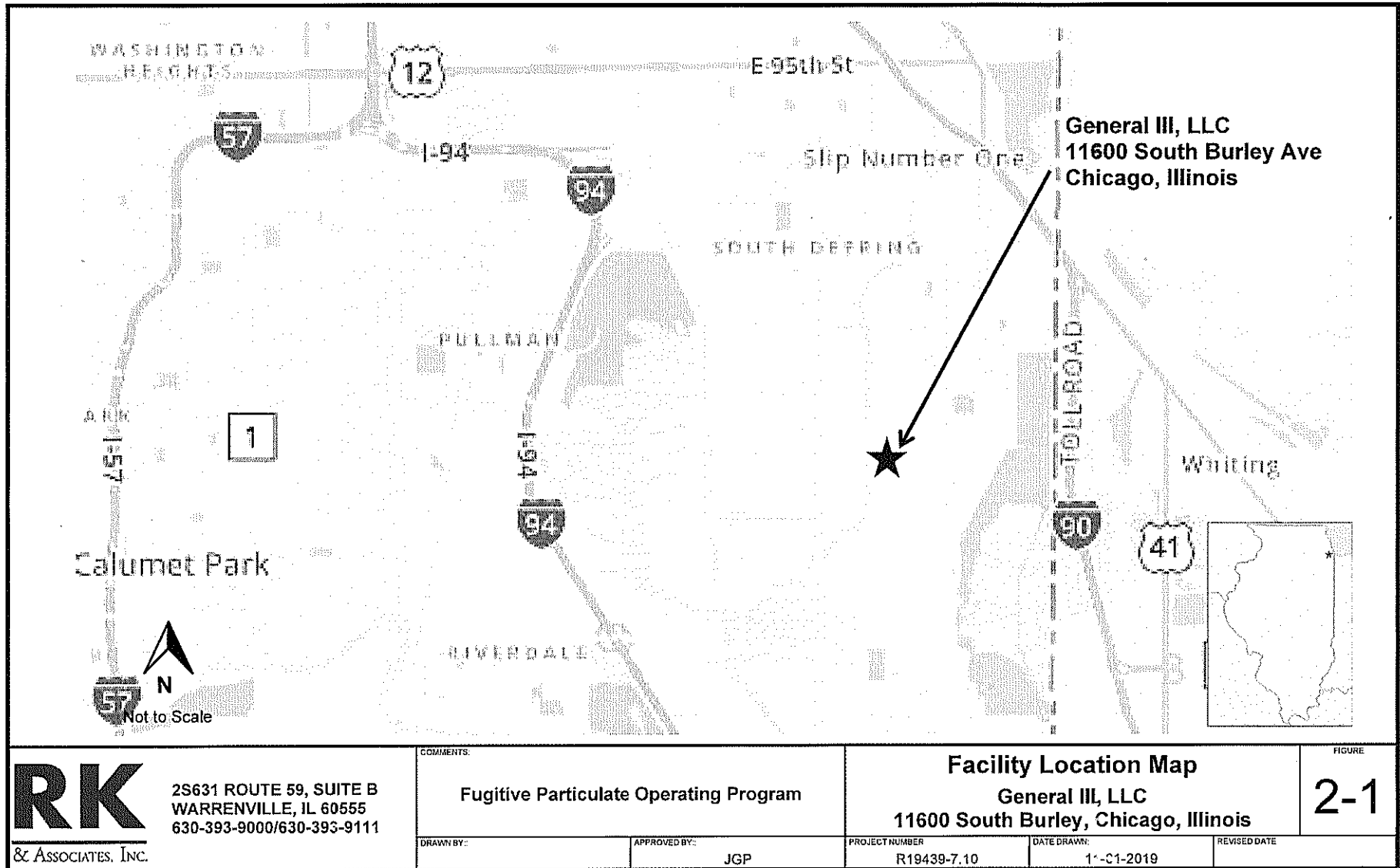
Shall op pursuant to this program to
ensure compliance with 2/2.301



Fugitive Particulate Operating Program

**General III, LLC
11600 South Burley
Chicago, Illinois 60614**

FIGURES





Layman, Robb

From: Jones, Eric E.
Sent: Friday, August 28, 2020 11:51 AM
To: Layman, Robb
Subject: FW: Redline of Changes in GIII Fugitive Particulate Operating Program from the March 20, 2020 version to the June 22, 2020 version

As requested

From: John Pinion <jpinion@rka-inc.com>
Sent: Monday, June 22, 2020 6:17 PM
To: Jones, Eric E. <Eric.E.Jones@Illinois.gov>
Cc: GII, LLC; Labkon, Adam (adamlabkon@general-iron.com) <AdamLabkon@General-Iron.com>; GII, LLC; Kallas, Jim (jimkallas@general-iron.com) <jimkallas@general-iron.com>
Subject: [External] Redline of Changes in GIII Fugitive Particulate Operating Program from the March 20, 2020 version to the June 22, 2020 version



Attached is a link to a Word File that uses Microsoft Word Track Changes to identify the revisions made to the March 20, 2020 GIII Fugitive Particulate Operation Program.

The changes identified in the linked file consist of changes made by the GIII to address IEPA comments received during conference calls on June 18 and 19, 2020, and written comments received via e-mail on earlier this afternoon.

https://rkaincorporated.sharepoint.com/:w:/s/RKAServer/EW6N_-HHEX1FgJnJRjv4QkYBJdarzjo-0qz44mu9_d17CA?e=7L3yvm

If you have any trouble opening the above link, please let me know as soon as possible.

If you have any questions, please do not hesitate to contact me.

Regards,
John Pinion

RK & Associates, Inc.
2 South 631 Route 59, Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000 x 208
Fax: 630-393-9111
Cell: 630-917-1455
E-mail: jpinion@rka-inc.com

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Layman, Robb

From: Zwick, Ann M. <azwick@freeborn.com>
Sent: Monday, June 22, 2020 7:04 PM
To: Layman, Robb; Armitage, Julie
Subject: [External] FW: Clean Copy of the June 22, 2020 Revised GIII Fugitive Particulate Operating Program
Attachments: 2020-06-22 FINAL DRAFT GIII FDOP w-IEPA comments addressed.pdf

See below --

ANN M. ZWICK
Attorney at Law
(312) 360-6254 office
(312) 952-1651 mobile
azwick@freeborn.com

From: John Pinion [mailto:jpinion@rka-inc.com]
Sent: Monday, June 22, 2020 6:32 PM
To: 'IEPA Jones, Eric E (eric.e.jones@illinois.gov)'
Cc: GII, LLC; Labkon, Adam (adamlabkon@general-iron.com) ; GII, LLC; Kallas, Jim (jimkallas@general-iron.com)
Subject: Clean Copy of the June 22, 2020 Revised GIII Fugitive Particulate Operating Program

External Email



Eric,

Attached is a clean copy in Adobe format of the GIII's June 22, 2020 Fugitive Particulate Operating Program for your review.

Earlier this evening, I sent you a link to a copy of the redline version in Microsoft Word.

Please let me know if you have any questions.

If you have any questions, please do not hesitate to contact me.

Regards,
John Pinion

RK & Associates, Inc.
2 South 631 Route 59, Suite B
Warrenville, Illinois 60555
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June 22, 2020

R17421-7.2

Mr. Eric Jones
Illinois Environmental Protection Agency - Bureau of Air
1021 North Grand Avenue East
Springfield, IL 62702

**Revised Fugitive Particulate Operating Program for a
Scrap Metal Recycling Facility
General III, LLC – 11600 South Burley - Chicago, Illinois**

Dear Mr. Jones:

Please find attached a revised copy of the Fugitive Particulate Operating Program for the proposed General III, LLC (GIII) Scrap Metal Recycling Facility located in Cook County at 11600 South Burley Avenue in Chicago, Illinois. This revised copy of the Program addresses comments received from IEPA on June 19, 2020.

An electronic copy of the above referenced document has also been forwarded to you and Ms. Julie Armitage.

If you have any questions or need any additional information, please don't hesitate to contact us at 630-393-9000.

Yours very truly,
RK & Associates

A handwritten signature in black ink, appearing to read "John G. Pinion".

John G. Pinion
Associate Engineer

cc: Mr. Jim Kallas – General III, LLC – Chicago, Illinois (via e-mail)
Ms. Julie Armitage – IEPA Bureau of Air – Springfield, Illinois (via-e-mail)

**Fugitive Particulate Operating Program
General III, LLC –
11600 S Burley Avenue - Chicago, Illinois
June 22, 2020**

R17421-7.2

***Prepared for:*
General III, LLC
1909 North Clifton Avenue
Chicago, Illinois 60614
Attn: Mr. Jim Kallas**

***Prepared by:*
John G. Pinion
Principal Engineer
RK & Associates, Inc.**



**2 South 631 Route 59
Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000
Fax: 630-393-9111**

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Facility Location and Contact Information	1
1.2 Regulatory Requirements	2
1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301	2
1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program	2
1.3 Definition of Visible Emissions	2
1.4 Industrial Campus Boundaries	2
2.0 FACILITY SITE MAP	3
3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR MITIGATION OF VISIBLE EMISSIONS	5
3.1 Raw Material Unloading/Handling	7
3.2 Shredder Enclosure	8
3.3 Material Transfer Points	8
3.4 Intermediate and Product Stockpiles	9
3.5 Fluff Storage and Loadout	10
3.6 Fines Processing Building	10
3.7 Truck Loadout	11
3.8 Paved Areas	11
3.9 Unpaved Areas	13
3.10 Off -Site Employee Parking Area	13
3.11 Vehicle Tarping	14
3.12 Barge Loading	15
3.13 Rail Car Loading	16
3.14 Industrial Campus Boundary Line Observations for Visible Emissions	16
4.0 RECORDKEEPING	17
4.1 Meteorological Data	17
4.2 Visible Emissions Observation and Control Form	17
4.3 Water Truck Log	17
4.4 Sweeper Log	18

4.5 Dust Boss System Water Application	18
4.6 Visible Emissions Mitigation Equipment Replacement and Maintenance	18
4.7 Monthly Inspections of Visible Emissions Mitigation Equipment	19
5.0 VOLUNTARY QUARTERLY REPORTING	21
6.0 PROGRAM AMENDMENT	23

TABLES

Table 3-1 Summary of Facility Operations and Best Management Practices for	6
Mitigation of Visible Emissions	

FIGURES

Figure 2-1 Facility Location Map	
Figure 2-2 Facility Layout Map	
Figure 2-3 Facility Layout Drawing	
Figure 3-1 Covered Conveyors - Ferrous Material Processing System	
Figure 3-2 Covered Conveyors – Non-Ferrous Material Processing System	



1.0 INTRODUCTION

This Fugitive Particulate Operating Program (Program) has been prepared for the General III, LLC (GIII) scrap metal recycling facility as a condition of Illinois Environmental Protection Agency (IEPA) Construction Permit No. 19090021.

GIII is a recycling facility (Facility) located in an existing established industrial district. GIII is configured to process 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, and shipment of finished products to customers.

The objective of this Program is to identify, monitor, and treat (as may be necessary) sources of Visible Emissions (defined in Section 1.3). GIII is implementing this Program to meet applicable regulatory standards.

1.1 Facility Location and Contact Information

<u>Business Name:</u>	General III, LLC
<u>Source Location:</u>	11600 South Burley – Chicago, Illinois 60617 Hyde Park Township, Cook County Illinois
<u>Latitude/Longitude</u>	41.685201° N / -87.545847° W – Approximate Location of Front Gate
<u>Office/Mailing Address:</u>	1909 N. Clifton Avenue – Chicago, Illinois 60614
<u>Authorized Representative Responsible for this Program:</u>	Mr. Jim Kallas – Environmental Manager 847-508-9170 – jimkallas@general-iron.com
<u>IEPA Site ID No.:</u>	031600SFX
<u>SIC Code:</u>	5093 – Scrap and Waste Materials
<u>NAICS Code:</u>	423930 – Recyclable Material Merchant Wholesalers

1.2 Regulatory Requirements

1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301

GIII is subject to the general limitation for fugitive particulate matter identified in 35 IAC 212.301, which requires that:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program

Pursuant to 35 IAC 212.302, a Fugitive Particulate Operating Program is required for any facility with operations belonging to specified groups of Standard Industrial Classification (SIC) Codes **and** that are located within a specified area. GIII is located in Cook County, which is a specified area under 35 IAC 212.302; however, GIII's SIC Code (5093 Scrap and Waste Materials) is **not** among the specified SIC codes. Therefore, GIII is not subject to a requirement to have a Fugitive Particulate Operating Program.

Although not required by regulations, this Fugitive Particulate Operating Program establishes the best management practices that will be used to minimize potential Visible Emissions and ensure compliance with 35 IAC 212.301.

1.3 Definition of Visible Emissions

For the purposes of this Program, "Visible Emissions" means the existence of visible fugitive particulate matter emissions that threatens to cross the Industrial Campus Boundary.

Visible Emissions do not include steam (water vapor), engine combustion exhaust, and particulate matter emitted from permitted exhaust stacks with or without a pollution control device because each permitted exhaust point has a separate opacity limit and particulate mass emission limit included in the facility construction/operation permit.

1.4 Industrial Campus Boundaries

For the purposes of this Program, the "property line" as referenced in 35 IAC 212.301, is the boundary of the existing Industrial Campus located at 11600 South Burley Avenue in Chicago, Illinois identified in Figure 2-2 (Industrial Campus Boundary).



2.0 FACILITY SITE MAP

The location of GIII is shown on Figures 2-1 and 2-2. GIII operates on approximately 25 acres within the Industrial Campus. Four other affiliated material recycling businesses are located within the Industrial Campus. Combined emissions from these other businesses qualify for, and are currently registered under, IEPA's Registration of Smaller Source (ROSS) Program.

The GIII scrap metal recycling facility is shown on Figure 2-3. The Facility Site Map indicates the locations of the Facility boundaries, buildings, location of material handling and processing areas, shredder enclosure, shredder emission control system, stockpiles, truck scales and facility vehicle entrance.

When initially constructed the Facility surface area will be comprised of 62% concrete and asphalt pavement and 8% stormwater retention pond. The remaining area includes ancillary support buildings, green space and unpaved surface consisting compacted asphalt gravel, asphalt grindings or similar materials.

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3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR MITIGATION OF VISIBLE EMISSIONS

Raw materials are delivered to the facility from a variety of sources including retail, commercial/industrial accounts via trucks or contract haulers and peddlers via peddler vehicles. Peddlers and semi-trucks entering the facility first pass through a truck scale.

Semi-trucks are then directed to a material staging area near the raw material stockpiles. Designated Facility personnel inspect all loads for unauthorized materials in accordance with Facility procedures. In this regard, the facility is subject to a Feed Stock Management Plan requirement in the facility construction permit. After unloading, the semi-trucks and peddler vehicles exit the Facility after passing over the appropriate truck scale.

The shredding process produces ferrous metal and Automobile Shredder Residue (ASR) which contains non-metallic material, non-ferrous metal and a limited amount of ferrous metal. Ferrous metal is processed to remove non-metallic material through a series of material handling steps in the Ferrous Metal Processing system to produce clean ferrous metal.

The ASR is directed to a stockpile for temporary storage prior to processing. ASR is transferred a short distance from the ASR stockpile to the Non-Ferrous Metal Processing system using a rubber-tired loader. ASR is processed by a variety of advanced material handling and separation equipment in the Non-Ferrous Metal Processing system to recover various sizes and grades of non-ferrous metals. Non-metallic material removed by the Non-Ferrous Metal Processing system is directed to a stockpile prior to being loaded into semi-trucks for off-site disposal at an appropriately licensed landfill.

Wherever the information in this Section 3 references application of water for mitigation of Visible Emissions, the following limitations are applicable:

- Application of water will be limited following precipitation events exceeding 0.1 inches.
- Application of water cannot be performed when temperatures are near or below freezing because water application will create unsafe conditions.

Table 3-1 summarizes facility operations with the potential to generate Visible Emissions and the Best Management Practices (BMPs) that will be utilized to achieve compliance with 35 IAC 212.301. For the purposes of this Program, compliance with 35 IAC 212.301 is determined at the Industrial Campus Boundary. Detailed descriptions of the BMPs are presented in Section 4.0.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

**Table 3-1 – Summary of Facility Operations and
Best Management Practices for Mitigation of Visible Emissions**

Operation	Best Management Practices					
	Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Additional BMPs	As Described in Section
Raw Material Unloading/Handling	X	X	X		Feed Stock Management Plan	3.1
Shredder Enclosure	X				Water injection/shredder emissions capture and control system	3.2
Material Transfer Points	X	X			Conveyor covers on selected conveyors	3.3
Intermediate and Product Stockpiles	X	X	X		Partial enclosures (side walls) on selected stockpiles	3.4
Fluff Storage and Loadout	X	X	X		Fluff storage bin with steel walls on three sides and equipped with a cover.	3.5
Fines Processing Building					Enclosed in a building with building exhaust treated by dust collectors	3.6
Material Loadout	X		X		Water spray	3.7
Traffic Areas – Paved Areas	X	X	X		Water Truck, Sweeper, and vehicle speed limit of 10 mph	3.8
Traffic Areas – Unpaved Areas	X	X		X	Water Truck, Sweeper, and vehicle speed limit of 10 mph	3.9
Off-Site Employee Parking	X		X	X	Speed bumps and speed limit signs to limit speed to 10 mph.	3.10
Vehicle Tarping					Trailers of outbound Fluff will be tarped.	3.11
Barge Loading	X				Specially designed chute extending downward from end of conveyor. When using mobile equipment drop distances will be reduced and water will be applied to material prior to loading.	3.12
Rail Car Loading	X				Minimize drop distance. Water material prior to loading.	3.13

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

**Table 3-1 – Summary of Facility Operations and
 Best Management Practices for Mitigation of Visible Emissions**

Operation	Best Management Practices					
	Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Additional BMPs	As Described in Section
Industrial Campus Boundary	X				Identify the source(s) of Visible Emissions and take corrective actions as described herein.	3.14

3.1 Raw Material Unloading/Handling

Raw scrap in bulk trucks (semi-trailers) is dumped on the ground near the shredder infeed conveyor where cranes equipped with magnets or grapples sort through the material and place it on a raw material stockpile or onto the shredder infeed conveyor of the shredder. These or other cranes equipped with magnets or grapples then transfer the material from the stockpiles to the shredder infeed conveyor.

The space available for stockpiling raw material is limited, and therefore, the material is typically processed within several days of its receipt. The raw material stockpiles will not be used for long term storage.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of each raw material unloading and handling area for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized to mitigate Visible Emissions.
- ii. Areas adjacent to raw material handling operations will be included in the watering and sweeping of paved areas described in Section 3.8.

3.2 Shredder Enclosure

The shredder will be located in a partial enclosure with acoustic roof and wall panels. The majority of one side of the enclosure, adjacent to the shredder, is a solid wall extending to ground level. The remainder of that wall and the other three walls consist of acoustic panels that extend to approximately 18 feet from ground level. Rubber belts then extend downward covering a portion of the lower 18 feet. There will be an open area at the bottom to allow access to the interior of the enclosure for equipment maintenance. Shredder emissions are captured by a hood located over the top of the shredder and are routed to the shredder emission control system. Captured particulate emissions are not fugitive emissions.

Potential sources of Visible Emissions inside the shredder enclosure include conveyor transfer points and potential uncaptured particulate emissions from the shredder. The shredder enclosure acts as a control device by allowing particulate to settle to the ground inside the building.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the shredder enclosure for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. If Visible Emissions are observed exiting the shredder enclosure, operators will perform a system inspection to identify the potential source and cause of the Visible Emissions and take appropriate corrective actions, which may include a change in the shredder water injection rate or shredder emissions capture and control system operating parameters.

3.3 Material Transfer Points

Material will be primarily transported through the Ferrous and Non-Ferrous Material Processing Systems on a series of belt conveyors. A material transfer point is the point at which material from an upstream conveyor is transferred to a downstream conveyor, the point at which an upstream conveyor feeds a piece of processing equipment, or the point at which a piece of processing equipment discharges material onto a takeaway conveyor. Visible Emissions from a transfer point may occur when the material being transferred has a high concentration of fine material and low moisture content.

Figure 3-1 identifies conveyors in the Ferrous Material Processing System that are equipped with covers, which are limited to the ASR takeaway conveyors and the Fluff take away conveyors.

Figure 3-2 identifies conveyors in the Non-Ferrous Material Processing System that are equipped with covers, which include all outside conveyors except those that convey clean metallic products that do not contain material that is subject to becoming Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. When Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Water will be applied to facility areas with the highest potential for Visible Emissions.

3.4 Intermediate and Product Stockpiles

The space available for stockpiling intermediates and products is limited and, therefore, these materials are typically processed or shipped off site regularly. These stockpiles will not be used for long term storage of materials.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material stockpiles for the presence of Visible Emissions once per day at each stockpile with the results recorded on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles when Visible Emissions are observed.
- i. With the exception of the Raw Material stockpiles, the two Ferrous Metal Stockpiles, and the ASR stockpile, all stockpiles identified in facility emission estimates will have solid partitions on three sides.
- ii. Areas adjacent to stockpiles will be included in the watering and sweeping of paved areas described in Section 3.8.

3.5 Fluff Storage and Loadout

“Fluff” is the term used to refer to the waste product from the Non-Ferrous Material Processing System.

The Fluff Storage Bin has been designed to mitigate Visible Emissions from the bin. The Fluff Storage Bin is enclosed on three sides by steel walls and on the top with a fixed cover.

One side of the bin is required to be open to allow access for a rubber-tired end loader for material loadout to trucks. The open side of the bin faces west, away from residential areas located east of the facility. A Dust Boss is also located near the west side of the bin to mitigate Visible Emissions.

A rubber-tired end loader is used to transfer fluff from the Fluff Storage Bin to trailers. After the trailers are filled, they are tarped before they leave the facility.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the Fluff Storage Bin for the presence of Visible Emissions three times per day and record the results on a VEOC form. At least one of these observations will be made during Fluff loadout. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. A Dust Boss water atomizer, located near the bin, will be used to mist the west side of the bin to mitigate fugitive dust and the material loadout area if Visible Emissions are observed.
- ii. Areas adjacent to the Fluff Storage Bin will be included in the watering and sweeping of paved areas described in Section 3.8.

3.6 Fines Processing Building

Fines Processing is performed in the Fines Processing Building. The building is equipped with four identical baghouses that collect dust from specific points in the process using a network of duct work and hoods. Dust captured in the collection system is routed to a baghouse filter. Treated air from three of the four baghouses is exhausted back into the building. The treated air from the fourth baghouse is discharged to the atmosphere. Particulate emissions in the baghouse exhaust stream that is discharged to the atmosphere are not fugitive emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of each conveyor wall opening and personnel/equipment access door in the Fines Processing Building for the presence of Visible Emissions once per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Personnel/equipment service doors shall be closed when not in use and the baghouses shall be functioning properly.
- ii. Particulate matter collected by the baghouses shall be collected on a covered conveyor and transferred to the Fluff Storage Bin.

3.7 Truck Loadout

Product loadout occurs when stockpiled material is transferred to trucks using a rubber-tired loader, or material handler.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of each loadout area that is active at the time the observations are performed. Each active material loadout area is observed for the presence of Visible Emissions three times per day and results are recorded on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Water will be applied to material and adjacent loadout areas when Visible Emissions are observed.
- ii. Areas adjacent to material loadout activity will be included in the watering and sweeping of paved areas described in Section 3.8.

3.8 Paved Areas

The paved areas with the highest potential for Visible Emissions are the traffic routes used by vehicles delivering raw material or transporting materials from the site.

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control**

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. The most frequently traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day. Observation locations will be identified prior to facility startup.

B. Visible Emissions Mitigation Measures:

- i. Speed limit signs, limiting vehicle speed to 10 mph, will be posted on vehicle travel routes.
- ii. Water will be applied to the most frequently used paved areas at least once per day, subject to the weather conditions identified above. Water will be applied to less frequently traveled routes at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation). If water is not be applied, the reason will be noted on the VEOC form.

- iii. Sweeping of the most frequently traveled routes will occur at least once per day when the facility is operating subject to the weather conditions identified above. Sweeping of less frequently traveled routes will occur at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation). If sweeping is not performed, the reason will be noted on the VEOC form.

- iv. Rumble Strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

The Rumble Strip area will be routinely inspected, and accumulated material removed on a regular basis to ensure effective operation.

3.9 Unpaved Areas

Limited areas within the Facility that are not paved with concrete or asphalt are covered with compacted asphalt grindings or similar material. Visible Emissions from unpaved areas are associated with vehicle use.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. The most frequently used areas will be observed three times per day and less frequently used areas will be observed once per day. Observation locations will be identified prior to facility startup.

B. Visible Emissions Mitigation Measures:

- i. Speed limit signs, limiting vehicle speed to 10 mph will be posted on vehicle travel routes.
- ii. Water will be applied to the most frequently used unpaved areas at least once per day subject to the weather conditions identified above. Water will be applied to the less frequently used areas at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation). If water is not be applied, the reason will be noted on the VEOC form.

- iii. If Visible Emissions are observed from unpaved areas during weather conditions that prohibit water application, alternative control measures will be evaluated. Evaluation and potential application of alternative mitigation measures will be based on operating experience and routine observations. Alternative mitigations measures may include but are not limited to minimizing activity in unpaved areas, application of surfactant prior to winter conditions, or placement of additional asphalt grindings or similar material.

3.10 Off-Site Employee Parking Area

There is administrative parking adjacent to the administration building inside of the Facility. The administrative parking area will be maintained as described in Section 3.8.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

There is also an off-site employee parking lot located east of the railroad tracks that parallels the east Industrial Campus Boundary and just north of vacated 116th Street, which is a nonpublic street west of Avenue O used by the Facility under an existing easement agreement.

Because employee vehicles will not routinely enter the facility, material track-in to the parking area will be negligible.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the off-site employee parking lot for the presence of Visible Emissions and record the results on a VEOC form. The off-site parking area will be observed once per day when employees are entering or leaving the area. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. The off-site parking area will be equipped with speed bumps and speed limit signs will be posted to limit vehicle speeds to 10 mph.
- ii. When Visible Emissions are observed, water will be applied to those areas.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).

- iii. Sweeping of the paved areas of the off-site parking lot will be performed once per month subject to the weather conditions identified above.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation).

3.11 Vehicle Tarping

Tarps are utilized on outgoing Fluff trailers because this material has the potential to become airborne during transport. Fluff trailers are tarped before leaving the Facility.

Based on operating experience, Fluff is the only material, incoming or outgoing, that has the potential to become airborne during transportation. It is not practical to tarp trailers of inbound scrap metal, outbound

trailers of shredded metal or other products because these materials do not generate airborne material during transport and, if covered, tarps would be cut or torn by pieces of scrap and further damaged during transport. The Illinois Department of Transportation (IDOT) governs the transport of material on roadways.

Outbound rail cars and barges filled with shredded steel and other products are also not tarped because these materials do not generate airborne material during transport. Outbound trucks, rail cars and barges are all constructed with solid floors and side walls but have open tops to facilitate loading and unloading.

A. Inspections/Observations:

- i. Outbound rail cars and trucks leaving the site, including Fluff trailers, are visually inspected by scale operators.

These inspections are part of the normal responsibilities of the scale operators and are not recorded or otherwise documented.

B. Visible Emissions Mitigation Measures:

- i. Fluff trailers are tarped before leaving the Facility.

3.12 Barge Loading

Barges will be loaded by a conveyor equipped with a specially designed chute. Barges could also be loaded by mobile equipment, in which case, water will be applied to the material to mitigate potential for Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of Barge Loading for the presence of Visible Emissions at least once during the loading of each barge and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. When loading barges with a conveyor, the conveyor will be equipped with a specially designed chute extending downward or a water spray to mitigate Visible Emissions.
- ii. When loading barges with mobile equipment, drop distances will be minimized and water will be applied to the material to mitigate Visible Emissions.

- iii. Areas adjacent to Barge Loading will be included in the watering and/or sweeping of paved and/or unpaved areas described in Sections 3.8 and 3.9.

3.13 Rail Car Loading

Rail cars are loaded by material handlers that include end loaders, grapples, and magnets. Grapple and magnet operators are trained to limit the drop distance of material into the rail cars to minimize the potential for Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of Rail Car Loading for the presence of Visible Emissions at least once each day during the loading of rail cars and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Material drop distances will be minimized by grapple and magnet operators to minimize the potential for Visible Emissions.
- ii. When loading rail cars with mobile equipment, drop distances will be minimized and water will be applied to the material to mitigate Visible Emissions.
- iii. Areas adjacent to Rail Car Loading will be included in the watering and/or sweeping of paved and/or unpaved areas described in Sections 3.8 and 3.9.

3.14 Industrial Campus Boundary Line Observations for Visible Emissions

Observations will be performed at the North, South, East, and West Industrial Campus boundaries.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations at least once per day of the North, South, East and West boundaries of the Industrial Campus for the presence of Visible Emissions and record the results on a VEOC form.

B. Visible Emissions Mitigation Measures

- i. If Visible Emissions are noted crossing the Industrial Campus boundary, facility personnel will investigate potential sources of the observed Visible Emissions and take corrective action to mitigate the observed Visible Emissions.



4.0 RECORDKEEPING

Records will be maintained as required by this Program and the permit.

4.1 Meteorological Data

An onsite meteorological data station (met station) will be installed and operated to record hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts. The met station will be centrally located at a minimum height pursuant to applicable USEPA protocols and guidance. Met data will be downloaded and stored electronically at the Facility.

Meteorological data will be recorded and maintained electronically on site. Data will include hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts.

4.2 Visible Emissions Observation and Control Form

A Visible Emissions Observation and Control (VEOC) Form will be used to record the results of Visible Emissions observations described in Section 3 and the corresponding mitigation measures applied.

The VEOC form will include the following information:

- Date/Time
- Name of Observer
- Area(s) Observed
 - Time of Observation
 - Visible Emissions Observed – Yes/No
 - > Approximate migration distance from source (ft)
 - Mitigation Measures Applied – Yes/No
 - > If Yes, identify Mitigation Measures Implemented

4.3 Water Truck Log

A log of water truck use will be generated by the operator to record water applications to paved and unpaved areas. This log will include:

- Date/Time
- Reason No Watering Was Performed (if applicable)
- Name of Water Truck Operator
- Reason for Water Application
 - Scheduled, or
 - Corrective Action in response to a Visible Emissions Observation

- Area(s) of Water Application
 - Time of Application
 - Approximate Amount of Water Applied (gallons)

4.4 Sweeper Log

A log of sweeper operation will be generated by the operator to record sweeping events. This log will include:

- Date/Time
- Reason No Sweeping Was Performed (if applicable)
- Name of Sweeper Operator
- Reason for Sweeping
 - Scheduled, or
 - Corrective Action in response to a Visible Emissions Observation
- Area(s) Swept
 - Time of Sweeping

4.5 Dust Boss Water Application

A water meter will be used to document the daily volume of water applied by the Dust Boss system.

4.6 Visible Emissions Mitigation Equipment Replacement and Maintenance

Records of replacement or maintenance performed on Visible Emissions mitigation equipment will be performed in accordance with manufacturers recommendations and records will be maintained by the Facility personnel. This information will identify:

- Maintenance performed on the water truck
- Maintenance performed on the sweeper
- Maintenance of Dust Bosses
- Replacement of Dust Bosses or other equipment

4.7 Monthly Inspections of Visible Emissions Mitigation Equipment

Facility personnel will perform monthly visual inspections of the following Visible Emissions mitigation equipment to ensure it is in good operating condition and functioning as intended.

Monthly visual inspections of the following equipment will be performed to ensure these are in good condition.

- Shredder Enclosure
- Ferrous Material Processing System Conveyor Covers
- Non-Ferrous Material Processing System Conveyor Covers
- Fluff Storage Bin
- Barge Loading Chute
- Water application systems

Results of these inspections will be recorded on a form that will include the following information:

- Equipment Being Inspected
- Date/Time of Inspection
- Person Conducting Inspection
- Check List of Equipment Features and Condition (acceptable / unacceptable)
 - Description of unacceptable conditions
- Date of corrective action (if required).
 - Description of Correction Action (if required)

The above referenced checklists will be developed after construction is complete.

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5.0 VOLUNTARY QUARTERLY REPORTING

Although not required, the following information will be reported to the IEPA on a quarterly basis. Quarterly reports will be submitted by the first day of the second month following the end of each calendar quarter.

January through March	Submitted May 1 st
April through June	Submitted by August 1 st
July through September	Submitted by November 1 st
October through December	Submitted by February 1 st

Each quarterly report will include the following information:

- Industrial Campus boundary line observation records
- Water Truck Log
- Sweeper Log
- Dust Boss system water application (gal/day)
- Summary of equipment replacement and maintenance of Visible Emissions mitigation equipment.

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6.0 PROGRAM AMENDMENT

This Fugitive Particulate Operating Program shall be amended from time to time so that the operating program is current. Program amendments will be submitted to the Illinois EPA within thirty (30) days of such amendment. Any future revision to this Program made by GIII is automatically incorporated by reference as an enforceable condition of the Facility construction/operation permit, unless it is expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies GIII of a deficiency with any revision to the Program, GIII will revise and re-submit the Fugitive Particulate Operating Program within thirty (30) days of receipt of notification to address the deficiency.

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Fugitive Particulate Operating Program

**General III, LLC
11600 South Burley
Chicago, Illinois 60614**

FIGURES

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R 011252



Figure 2-3 GIII Facility Layout
Fugitive Dust Operating Program
General III, LLC
11600 South Burley Avenue
Chicago, Illinois

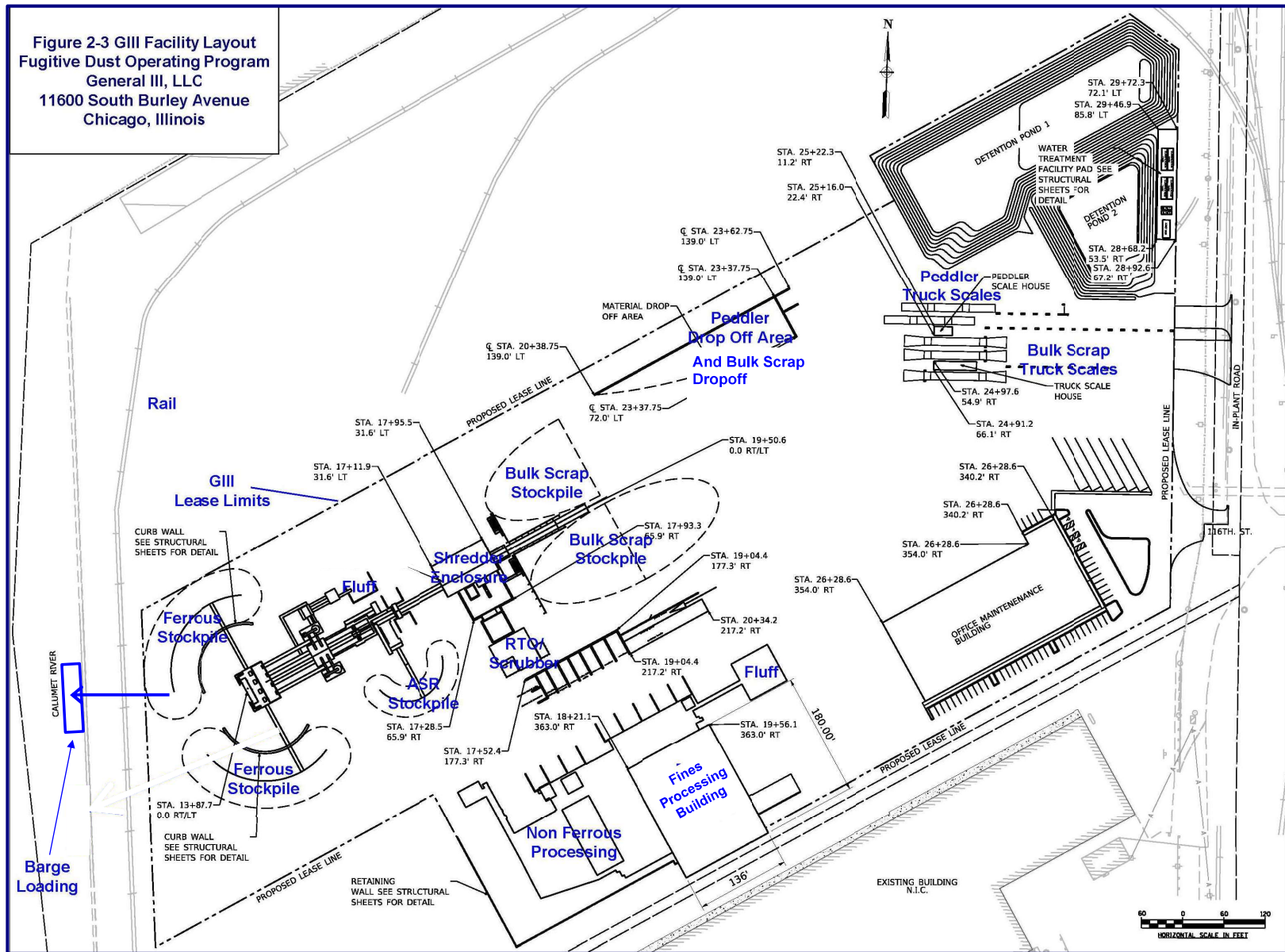
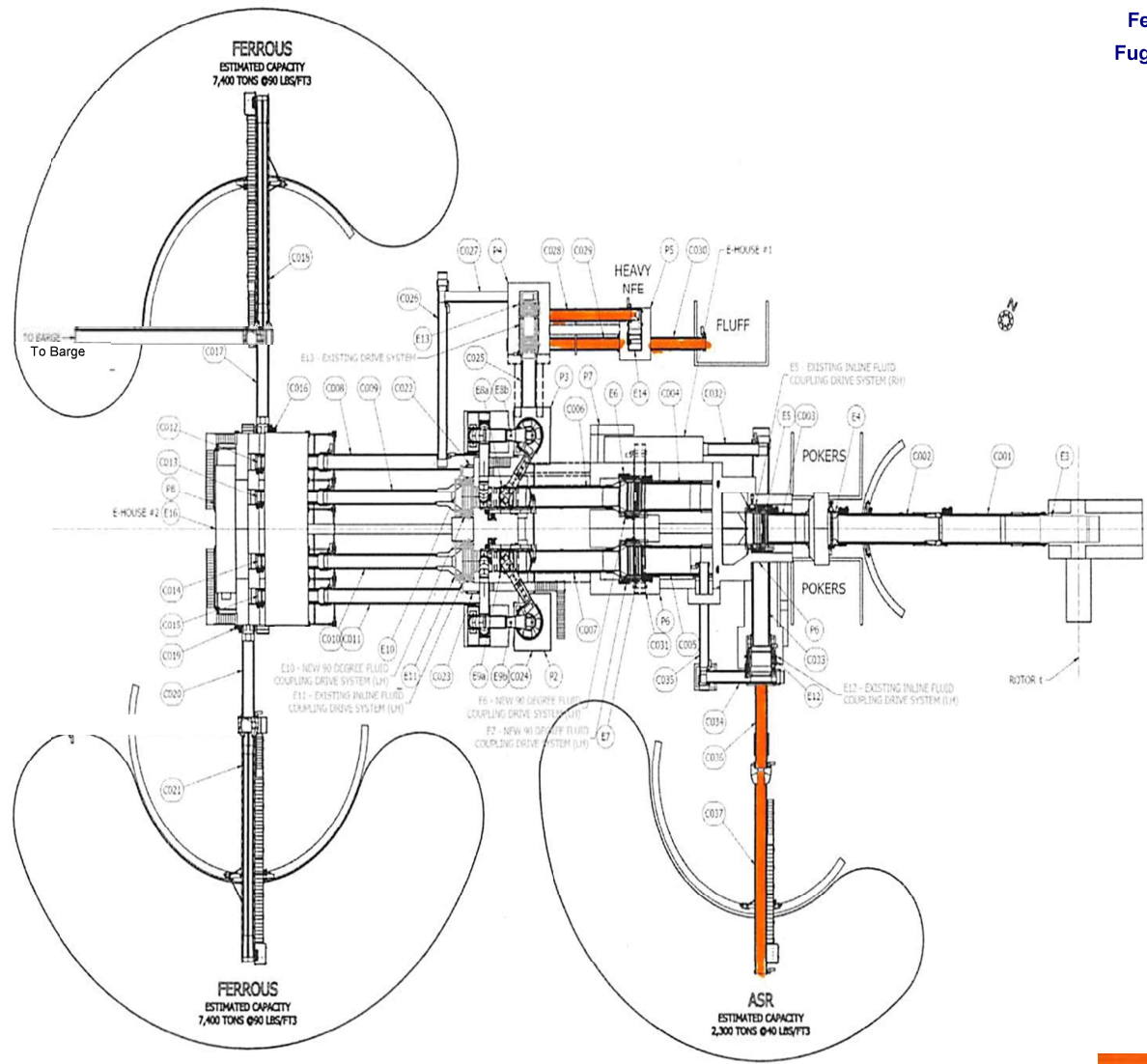
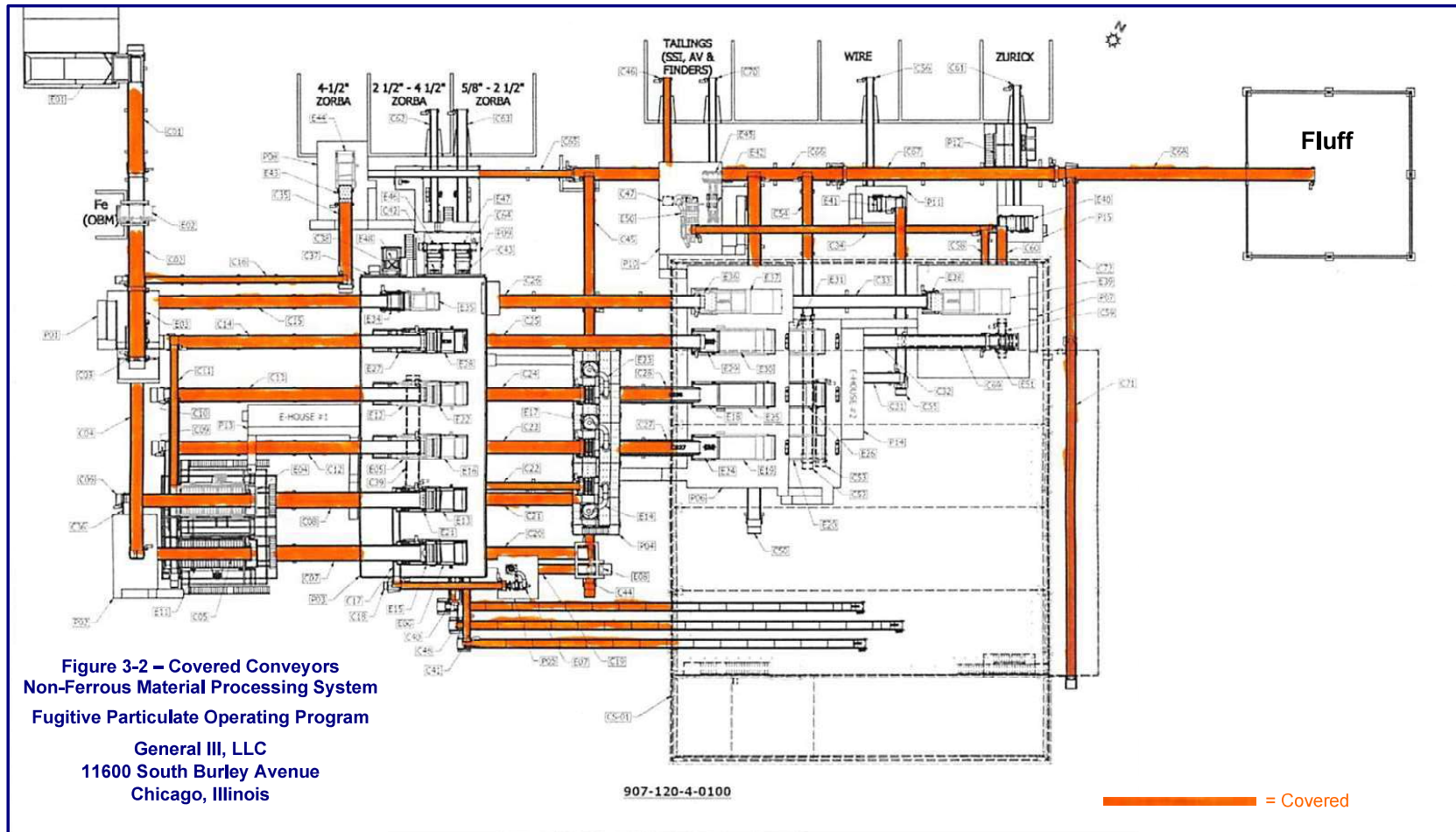


Figure 3-1 – Covered Conveyors
 Ferrous Material Processing System
 Fugitive Particulate Operating Program
 General III, LLC
 11600 South Burley Avenue
 Chicago, Illinois





Layman, Robb

From: Jones, Eric E.
Sent: Tuesday, September 1, 2020 11:39 AM
To: Layman, Robb
Subject: FW: Clean copy of GIII Fugitive Dust Operating Plan

From: John Pinion <jpinion@rka-inc.com>
Sent: Thursday, June 25, 2020 1:38 PM
To: Jones, Eric E. <Eric.E.Jones@Illinois.gov>
Cc: GII, LLC; Labkon, Adam (adamlabkon@general-iron.com) <AdamLabkon@General-Iron.com>; Reserve Management Group; Tolin, Hal (haltolin@reserve-group.com) <haltolin@reserve-group.com>; Steve Joseph <SteveJoseph@reserve-group.com>; GII, LLC; Kallas, Jim (jimkallas@general-iron.com) <jimkallas@general-iron.com>; Zwick, Ann M. <azwick@freeborn.com>
Subject: [External] Clean copy of GIII Fugitive Dust Operating Plan



Eric,

I was informed that I did not include the entire document in the Adobe file I sent. I have attached another Adobe file with the entire plan.

If you have any questions, please do not hesitate to contact me.

Regards,
John Pinion

RK & Associates, Inc.
2 South 631 Route 59, Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000 x 208
Fax: 630-393-9111
Cell: 630-917-1455
E-mail: jpinion@rka-inc.com

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June 25, 2020

R17421-7.2

Mr. Eric Jones
Illinois Environmental Protection Agency - Bureau of Air
1021 North Grand Avenue East
Springfield, IL 62702

**Revised Fugitive Particulate Operating Program for a
Scrap Metal Recycling Facility
General III, LLC – 11600 South Burley - Chicago, Illinois**

Dear Mr. Jones:

Please find attached a revised copy of the Fugitive Particulate Operating Program for the proposed General III, LLC (GIII) Scrap Metal Recycling Facility located in Cook County at 11600 South Burley Avenue in Chicago, Illinois. This revised copy of the Program addresses comments received from IEPA on June 19 and 24, 2020.

An electronic copy of the above referenced document has also been forwarded to you and Ms. Julie Armitage.

If you have any questions or need any additional information, please don't hesitate to contact us at 630-393-9000.

Yours very truly,
RK & Associates

A handwritten signature in black ink, appearing to read "John G. Pinion".

John G. Pinion
Associate Engineer

cc: Mr. Jim Kallas – General III, LLC – Chicago, Illinois (via e-mail)
Ms. Julie Armitage – IEPA Bureau of Air – Springfield, Illinois (via-e-mail)

**Fugitive Particulate Operating Program
General III, LLC –
11600 S Burley Avenue - Chicago, Illinois
June 25, 2020**

R17421-7.2

***Prepared for:*
General III, LLC
1909 North Clifton Avenue
Chicago, Illinois 60614
Attn: Mr. Jim Kallas**

***Prepared by:*
John G. Pinion
Principal Engineer
RK & Associates, Inc.**



**2 South 631 Route 59
Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000
Fax: 630-393-9111**

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Facility Location and Contact Information	1
1.2 Regulatory Requirements	2
1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301	2
1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program	2
1.3 Definition of Visible Emissions	2
1.4 Industrial Campus Boundaries	2
2.0 FACILITY SITE MAP	3
3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR MITIGATION OF VISIBLE EMISSIONS	5
3.1 Raw Material Unloading/Handling	7
3.2 Material Transfer Points	7
3.3 Intermediate and Product Stockpiles	8
3.4 Fluff Storage and Loadout	8
3.5 Truck Loadout	9
3.6 Paved Areas	10
3.7 Unpaved Areas	11
3.8 Employee Parking Area	12
3.9 Vehicle Tarping	13
3.10 Barge Loading	13
3.11 Rail Car Loading	14
3.12 Industrial Campus Boundary Line Observations for Visible Emissions	14
4.0 RECORDKEEPING	17
4.1 Meteorological Data	17
4.2 Visible Emissions Observation and Control Form	17
4.3 Water Truck Log	17
4.4 Sweeper Log	18
4.5 Dust Boss System Water Application	18
4.6 Visible Emissions Mitigation Equipment Replacement and Maintenance	18

4.7 Monthly Inspections of Visible Emissions Mitigation Equipment	19
5.0 VOLUNTARY QUARTERLY REPORTING	21
6.0 PROGRAM AMENDMENT	23

TABLES

Table 3-1 Summary of Facility Operations and Best Management Practices for	6
Mitigation of Visible Emissions	

FIGURES

Figure 2-1 Facility Location Map	
Figure 2-2 Facility Layout Map	
Figure 2-3 Facility Layout Drawing	
Figure 3-1 Covered Conveyors - Ferrous Material Processing System	
Figure 3-2 Covered Conveyors – Non-Ferrous Material Processing System	
Figure 4-1 Anticipated Dust Boss Locations	
Figure 4-2 Designated Areas for Routine Watering and Sweeping	



1.0 INTRODUCTION

This Fugitive Particulate Operating Program (Program) has been prepared for the General III, LLC (GIII) scrap metal recycling facility as a condition of Illinois Environmental Protection Agency (IEPA) Construction Permit No. 19090021.

GIII is a recycling facility (Facility) located in an existing established industrial district. GIII is configured to process 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, and shipment of finished products to customers.

The objective of this Program is to identify, monitor, and treat (as may be necessary) sources of Visible Emissions (defined in Section 1.3). GIII is implementing this Program to meet applicable regulatory standards.

1.1 Facility Location and Contact Information

<u>Business Name:</u>	General III, LLC
<u>Source Location:</u>	11600 South Burley – Chicago, Illinois 60617 Hyde Park Township, Cook County Illinois
<u>Latitude/Longitude</u>	41.685201° N / -87.545847° W – Approximate Location of Front Gate
<u>Office/Mailing Address:</u>	1909 N. Clifton Avenue – Chicago, Illinois 60614
<u>Authorized Representative Responsible for this Program:</u>	Mr. Jim Kallas – Environmental Manager 847-508-9170 – jimkallas@general-iron.com
<u>IEPA Site ID No.:</u>	031600SFX
<u>SIC Code:</u>	5093 – Scrap and Waste Materials
<u>NAICS Code:</u>	423930 – Recyclable Material Merchant Wholesalers

1.2 Regulatory Requirements

1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301

GIII is subject to the general limitation for fugitive particulate matter identified in 35 IAC 212.301, which requires that:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program

Pursuant to 35 IAC 212.302, a Fugitive Particulate Operating Program is required for any facility with operations belonging to specified groups of Standard Industrial Classification (SIC) Codes **and** that are located within a specified area. GIII is located in Cook County, which is a specified area under 35 IAC 212.302; however, GIII's SIC Code (5093 Scrap and Waste Materials) is **not** among the specified SIC codes. Therefore, GIII is not subject to a requirement to have a Fugitive Particulate Operating Program.

Although not required by regulations, this Fugitive Particulate Operating Program establishes the best management practices that will be used to minimize potential Visible Emissions and ensure compliance with 35 IAC 212.301.

1.3 Definition of Visible Emissions

For the purposes of this Program, "Visible Emissions" means the existence of visible fugitive particulate matter emissions that threaten to cross the Industrial Campus Boundary.

Visible Emissions do not include steam (water vapor), engine combustion exhaust, and particulate matter emitted from permitted exhaust stacks with or without a pollution control device because each permitted exhaust point has a separate opacity limit and particulate mass emission limit included in the facility construction/operation permit.

1.4 Industrial Campus Boundaries

For the purposes of this Program, the "property line" as referenced in 35 IAC 212.301, is the boundary of the existing Industrial Campus located at 11600 South Burley Avenue in Chicago, Illinois identified in Figure 2-2 (Industrial Campus Boundary).



2.0 FACILITY SITE MAP

The location of GIII is shown on Figures 2-1 and 2-2. GIII operates on approximately 25 acres within the Industrial Campus. Four other affiliated material recycling businesses are located within the Industrial Campus. Combined emissions from these other businesses qualify for, and are currently registered under, IEPA's Registration of Smaller Source (ROSS) Program.

The GIII scrap metal recycling facility is shown on Figure 2-3. The Facility Site Map indicates the locations of the Facility boundaries, buildings, location of material handling and processing areas, shredder enclosure, shredder emission control system, stockpiles, truck scales and facility vehicle entrance.

When initially constructed the Facility surface area will be comprised of 62% concrete and asphalt pavement and 8% stormwater retention pond. The remaining area includes ancillary support buildings, green space and unpaved surface consisting compacted asphalt gravel, asphalt grindings or similar materials.

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3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR MITIGATION OF VISIBLE EMISSIONS

Raw materials are delivered to the facility from a variety of sources including retail, commercial/industrial accounts via trucks or contract haulers and peddlers via peddler vehicles. Peddlers and semi-trucks entering the facility first pass through a truck scale.

Semi-trucks are then directed to a material staging area near the raw material stockpiles. Designated Facility personnel inspect all loads for unauthorized materials in accordance with Facility procedures. In this regard, the facility is subject to a Feed Stock Management Plan requirement in the facility construction permit. After unloading, the semi-trucks and peddler vehicles exit the Facility after passing over the appropriate truck scale.

The shredding process produces ferrous metal and Automobile Shredder Residue (ASR) which contains non-metallic material, non-ferrous metal and a limited amount of ferrous metal. Ferrous metal is processed to remove non-metallic material through a series of material handling steps in the Ferrous Metal Processing system to produce clean ferrous metal.

The ASR is directed to a stockpile for temporary storage prior to processing. ASR is transferred a short distance from the ASR stockpile to the Non-Ferrous Metal Processing system using a rubber-tired loader. ASR is processed by a variety of advanced material handling and separation equipment in the Non-Ferrous Metal Processing system to recover various sizes and grades of non-ferrous metals. Non-metallic material removed by the Non-Ferrous Metal Processing system is directed to a stockpile prior to being loaded into semi-trucks for off-site disposal at an appropriately licensed landfill.

Wherever the information in this Section 3 references application of water for mitigation of Visible Emissions, the following limitations are applicable:

- Application of water will be limited following precipitation events exceeding 0.1 inches.
- Application of water cannot be performed when temperatures are near or below freezing because water application will create unsafe conditions. During these time periods, the facility will lower the posted speed limit to 5 mph.

Table 3-1 summarizes facility operations with the potential to generate Visible Emissions and the Best Management Practices (BMPs) that will be utilized to achieve compliance with 35 IAC 212.301. For the purposes of this Program, compliance with 35 IAC 212.301 is determined at the Industrial Campus Boundary. Detailed descriptions of the BMPs are presented in Section 4.0.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

**Table 3-1 – Summary of Facility Operations and
Best Management Practices for Mitigation of Visible Emissions**

Operation	Best Management Practices					
	Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Additional BMPs	As Described in Section
Raw Material Unloading/Handling	X	X	X		Feed Stock Management Plan	3.1
Material Transfer Points	X	X			Conveyor covers on selected conveyors	3.2
Intermediate and Product Stockpiles	X	X	X		Partial enclosures (side walls) on selected stockpiles	3.3
Fluff Storage and Loadout	X	X	X		Fluff storage bin with steel walls on three sides and equipped with a cover.	3.4
Material Loadout	X		X		Water spray	3.5
Traffic Areas – Paved Areas	X	X	X		Water Truck, Sweeper, and vehicle speed limit of 10 mph	3.6
Traffic Areas – Unpaved Areas	X	X		X	Water Truck, Sweeper, and vehicle speed limit of 10 mph	3.7
Employee Parking	X		X	X	Speed bumps and speed limit signs to limit speed to 10 mph.	3.8
Vehicle Tarping					Trailers of outbound Fluff will be tarped.	3.9
Barge Loading	X				Specially designed chute extending downward from end of conveyor. When using mobile equipment drop distances will be reduced and water will be applied to material prior to loading.	3.10
Rail Car Loading	X				Minimize drop distance. Water material prior to loading.	3.11
Industrial Campus Boundary	X				Identify the source(s) of Visible Emissions and take corrective actions as described herein.	3.12

3.1 Raw Material Unloading/Handling

Raw scrap in bulk trucks (semi-trailers) is dumped on the ground near the shredder infeed conveyor where cranes equipped with magnets or grapples sort through the material and place it on a raw material stockpile or onto the shredder infeed conveyor of the shredder. These or other cranes equipped with magnets or grapples then transfer the material from the stockpiles to the shredder infeed conveyor.

The space available for stockpiling raw material is limited, and therefore, the material is typically processed within several days of its receipt. The raw material stockpiles will not be used for long term storage.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of each raw material unloading and handling area for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized to mitigate Visible Emissions.
- ii. Areas adjacent to raw material handling operations will be included in the watering and sweeping of paved areas described in Section 3.8.

3.2 Material Transfer Points

Material will be primarily transported through the Ferrous and Non-Ferrous Material Processing Systems on a series of belt conveyors. A material transfer point is the point at which material from an upstream conveyor is transferred to a downstream conveyor, the point at which an upstream conveyor feeds a piece of processing equipment, or the point at which a piece of processing equipment discharges material onto a takeaway conveyor. Visible Emissions from a transfer point may occur when the material being transferred has a high concentration of fine material and low moisture content.

Figure 3-1 identifies conveyors in the Ferrous Material Processing System that are equipped with covers, which are limited to the ASR takeaway conveyors and the Fluff take away conveyors.

Figure 3-2 identifies conveyors in the Non-Ferrous Material Processing System that are equipped with covers, which include all outside conveyors except those that convey clean metallic products that do not contain material that is subject to becoming Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. When Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Water will be applied to facility areas with the highest potential for Visible Emissions.

3.3 Intermediate and Product Stockpiles

The space available for stockpiling intermediates and products is limited and, therefore, these materials are typically processed or shipped off site regularly. These stockpiles will not be used for long term storage of materials.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material stockpiles for the presence of Visible Emissions once per day at each stockpile with the results recorded on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles when Visible Emissions are observed.
- i. With the exception of the Raw Material stockpiles, the two Ferrous Metal Stockpiles, and the ASR stockpile, all stockpiles identified in facility emission estimates will have solid partitions on three sides.
- ii. Areas adjacent to stockpiles will be included in the watering and sweeping of paved areas described in Section 3.8.

3.4 Fluff Storage and Loadout

“Fluff” is the term used to refer to the waste product from the Non-Ferrous Material Processing System.

The Fluff Storage Bin has been designed to mitigate Visible Emissions from the bin. The Fluff Storage Bin is enclosed on three sides by steel walls and on the top with a fixed cover.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

One side of the bin is required to be open to allow access for a rubber-tired end loader for material loadout to trucks. The open side of the bin faces west, away from residential areas located east of the facility. A Dust Boss is also located near the west side of the bin to mitigate Visible Emissions.

A rubber-tired end loader is used to transfer fluff from the Fluff Storage Bin to trailers. After the trailers are filled, they are tarped before they leave the facility.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the Fluff Storage Bin for the presence of Visible Emissions three times per day and record the results on a VEOC form. At least one of these observations will be made during Fluff loadout. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. A Dust Boss water atomizer, located near the bin, will be used to mist the west side of the bin to mitigate fugitive dust and the material loadout area if Visible Emissions are observed.
- ii. Areas adjacent to the Fluff Storage Bin will be included in the watering and sweeping of paved areas described in Section 3.8.

3.5 Truck Loadout

Product loadout occurs when stockpiled material is transferred to trucks using a rubber-tired loader, or material handler.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of each loadout area that is active at the time the observations are performed. Each active material loadout area is observed for the presence of Visible Emissions three times per day and results are recorded on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Water will be applied to material and adjacent loadout areas when Visible Emissions are observed.

- ii. Areas adjacent to material loadout activity will be included in the watering and sweeping of paved areas described in Section 3.8.

3.6 Paved Areas

The paved areas with the highest potential for Visible Emissions are the traffic routes used by vehicles delivering raw material or transporting materials from the site.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. The most frequently traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day. Observation locations will be identified prior to facility startup.

B. Visible Emissions Mitigation Measures:

- i. Speed limit signs, limiting vehicle speed to 10 mph, will be posted on vehicle travel routes.
- ii. Water will be applied to the most frequently used paved areas at least once per day, subject to the weather conditions identified above. Water will be applied to less frequently traveled routes at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation). If water is not be applied, the reason will be noted on the VEOC form.

- iii. Sweeping of the most frequently traveled routes will occur at least once per day when the facility is operating subject to the weather conditions identified above. Sweeping of less frequently traveled routes will occur at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation). If sweeping is not performed, the reason will be noted on the VEOC form.

- iv. Rumble Strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

The Rumble Strip area will be routinely inspected, and accumulated material removed on a regular basis to ensure effective operation.

3.7 Unpaved Areas

Limited areas within the Facility that are not paved with concrete or asphalt are covered with compacted asphalt grindings or similar material. Visible Emissions from unpaved areas are associated with vehicle use.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. The most frequently used areas will be observed three times per day and less frequently used areas will be observed once per day. Observation locations will be identified prior to facility startup.

B. Visible Emissions Mitigation Measures:

- i. Speed limit signs, limiting vehicle speed to 10 mph will be posted on vehicle travel routes.
- ii. Water will be applied to the most frequently used unpaved areas at least once per day subject to the weather conditions identified above. Water will be applied to the less frequently used areas at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation). If water is not be applied, the reason will be noted on the VEOC form.

- iii. If Visible Emissions are observed from unpaved areas during weather conditions that prohibit water application, alternative control measures will be evaluated. Evaluation and potential application of alternative mitigation measures will be based on operating experience and routine observations. Alternative mitigations measures may include but are not limited to minimizing activity in unpaved areas, application of surfactant prior to winter conditions, or placement of additional asphalt grindings or similar material.

3.8 Employee Parking Area

There is administrative parking adjacent to the administration building inside of the Facility. The administrative parking area will be maintained as described in Section 3.8.

There is also an employee parking lot located east of the railroad tracks that parallels the east Industrial Campus Boundary and just north of vacated 116th Street, which is a nonpublic street west of Avenue O used by the Facility under an existing easement agreement.

Because employee vehicles will not routinely enter the facility, material track-in to the parking area will be negligible.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the employee parking lot for the presence of Visible Emissions and record the results on a VEOC form. The parking area will be observed once per day when employees are entering or leaving the area. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. The employee parking area will be equipped with speed bumps and speed limit signs will be posted to limit vehicle speeds to 10 mph.
- ii. When Visible Emissions are observed, water will be applied to those areas.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).

- iii. Sweeping of the paved areas of the employee parking lot will be performed once per month subject to the weather conditions identified above.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation).

3.9 Vehicle Tarping

Tarps are utilized on outgoing Fluff trailers because this material has the potential to become airborne during transport. Fluff trailers are tarped before leaving the Facility.

Based on operating experience, Fluff is the only material, incoming or outgoing, that has the potential to become airborne during transportation. It is not practical to tarp trailers of inbound scrap metal, outbound trailers of shredded metal or other products because these materials do not generate airborne material during transport and, if covered, tarps would be cut or torn by pieces of scrap and further damaged during transport. The Illinois Department of Transportation (IDOT) governs the transport of material on roadways.

Outbound rail cars and barges filled with shredded steel and other products are also not tarped because these materials do not generate airborne material during transport. Outbound trucks, rail cars and barges are all constructed with solid floors and side walls but have open tops to facilitate loading and unloading.

A. Inspections/Observations:

- i. Outbound rail cars and trucks leaving the site, including Fluff trailers, are visually inspected by scale operators.

These inspections are part of the normal responsibilities of the scale operators and are not recorded or otherwise documented.

B. Visible Emissions Mitigation Measures:

- i. Fluff trailers are tarped before leaving the Facility.

3.10 Barge Loading

Barges will be loaded by a conveyor equipped with a specially designed chute. Barges could also be loaded by mobile equipment, in which case, water will be applied to the material to mitigate potential for Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of Barge Loading for the presence of Visible Emissions at least once during the loading of each barge and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. When loading barges with a conveyor, the conveyor will be equipped with a specially designed chute extending downward or a water spray to mitigate Visible Emissions.
- ii. When loading barges with mobile equipment, drop distances will be minimized and water will be applied to the material to mitigate Visible Emissions.
- iii. Areas adjacent to Barge Loading will be included in the watering and/or sweeping of paved and/or unpaved areas described in Sections 3.8 and 3.9.

3.11 Rail Car Loading

Rail cars are loaded by material handlers that include end loaders, grapples, and magnets. Grapple and magnet operators are trained to limit the drop distance of material into the rail cars to minimize the potential for Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of Rail Car Loading for the presence of Visible Emissions at least once each day during the loading of rail cars and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Material drop distances will be minimized by grapple and magnet operators to minimize the potential for Visible Emissions.
- ii. When loading rail cars with mobile equipment, drop distances will be minimized and water will be applied to the material to mitigate Visible Emissions.
- iii. Areas adjacent to Rail Car Loading will be included in the watering and/or sweeping of paved and/or unpaved areas described in Sections 3.8 and 3.9.

3.12 Industrial Campus Boundary Line Observations for Visible Emissions

Observations will be performed at the North, South, East, and West Industrial Campus boundaries.

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control**

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations at least once per day of the North, South, East and West boundaries of the Industrial Campus for the presence of Visible Emissions and record the results on a VEOC form.

B. Visible Emissions Mitigation Measures

- i. If Visible Emissions are noted crossing the Industrial Campus boundary, facility personnel will investigate potential sources of the observed Visible Emissions and take corrective action to mitigate the observed Visible Emissions.

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4.0 RECORDKEEPING

Records will be maintained as required by this Program and the permit.

4.1 Meteorological Data

An onsite meteorological data station (met station) will be installed and operated to record hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts. The met station will be centrally located at a minimum height pursuant to applicable USEPA protocols and guidance. Met data will be downloaded and stored electronically at the Facility.

Meteorological data will be recorded and maintained electronically on site. Data will include hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts.

4.2 Visible Emissions Observation and Control Form

A Visible Emissions Observation and Control (VEOC) Form will be used to record the results of Visible Emissions observations described in Section 3 and the corresponding mitigation measures applied.

The VEOC form will include the following information:

- Date/Time
- Name of Observer
- Area(s) Observed
 - Time of Observation
 - Visible Emissions Observed – Yes/No
 - > Approximate migration distance from source (ft)
 - Mitigation Measures Applied – Yes/No
 - > If Yes, identify Mitigation Measures Implemented

4.3 Water Truck Log

The water truck will make routine rounds in the areas identified in Figure 4-2. A log of water truck use will be generated by the operator to record water applications to paved and unpaved areas. This log will include:

- Date/Time
- Reason No Watering Was Performed (if applicable)
- Name of Water Truck Operator
- Reason for Water Application
 - Scheduled, or

- Corrective Action in response to a Visible Emissions Observation
- Area(s) of Water Application
 - Time of Application
 - Approximate Amount of Water Applied (gallons)

4.4 Sweeper Log

A log of sweeper operation will be generated by the operator to record sweeping events. This log will include:

- Date/Time
- Reason No Sweeping Was Performed (if applicable)
- Name of Sweeper Operator
- Reason for Sweeping
 - Scheduled, or
 - Corrective Action in response to a Visible Emissions Observation
- Area(s) Swept
 - Time of Sweeping

4.5 Dust Boss Water Application

A water meter will be used to document the daily volume of water applied by the Dust Boss system. Figure 4-1 identifies the anticipated location of Dust Bosses.

4.6 Visible Emissions Mitigation Equipment Replacement and Maintenance

Records of replacement or maintenance performed on Visible Emissions mitigation equipment will be performed in accordance with manufacturers recommendations and records will be maintained by the Facility personnel. This information will identify:

- Maintenance performed on the water truck
- Maintenance performed on the sweeper
- Maintenance of Dust Bosses
- Replacement of Dust Bosses or other equipment

4.7 Monthly Inspections of Visible Emissions Mitigation Equipment

Facility personnel will perform monthly visual inspections of the following Visible Emissions mitigation equipment to ensure it is in good operating condition and functioning as intended.

Monthly visual inspections of the following equipment will be performed to ensure these are in good condition.

- Shredder Enclosure
- Ferrous Material Processing System Conveyor Covers
- Non-Ferrous Material Processing System Conveyor Covers
- Fluff Storage Bin
- Barge Loading Chute
- Water application systems

Results of these inspections will be recorded on a form that will include the following information:

- Equipment Being Inspected
- Date/Time of Inspection
- Person Conducting Inspection
- Check List of Equipment Features and Condition (acceptable / unacceptable)
 - Description of unacceptable conditions
- Date of corrective action (if required).
 - Description of Correction Action (if required)

The above referenced checklists will be developed after construction is complete.

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5.0 VOLUNTARY QUARTERLY REPORTING

Although not required, the following information will be reported to the IEPA on a quarterly basis. Quarterly reports will be submitted by the first day of the second month following the end of each calendar quarter.

January through March	Submitted May 1 st
April through June	Submitted by August 1 st
July through September	Submitted by November 1 st
October through December	Submitted by February 1 st

Each quarterly report will include the following information:

- Industrial Campus boundary line observation records
- Water Truck Log
- Sweeper Log
- Dust Boss system water application (gal/day)
- Summary of equipment replacement and maintenance of Visible Emissions mitigation equipment.

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6.0 PROGRAM AMENDMENT

This Fugitive Particulate Operating Program shall be amended from time to time so that the operating program is current. Program amendments will be submitted to the Illinois EPA within thirty (30) days of such amendment. Any future revision to this Program made by GIII is automatically incorporated by reference as an enforceable condition of the Facility construction/operation permit, unless it is expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies GIII of a deficiency with any revision to the Program, GIII will revise and re-submit the Fugitive Particulate Operating Program within thirty (30) days of receipt of notification to address the deficiency.

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Fugitive Particulate Operating Program

**General III, LLC
11600 South Burley
Chicago, Illinois 60614**

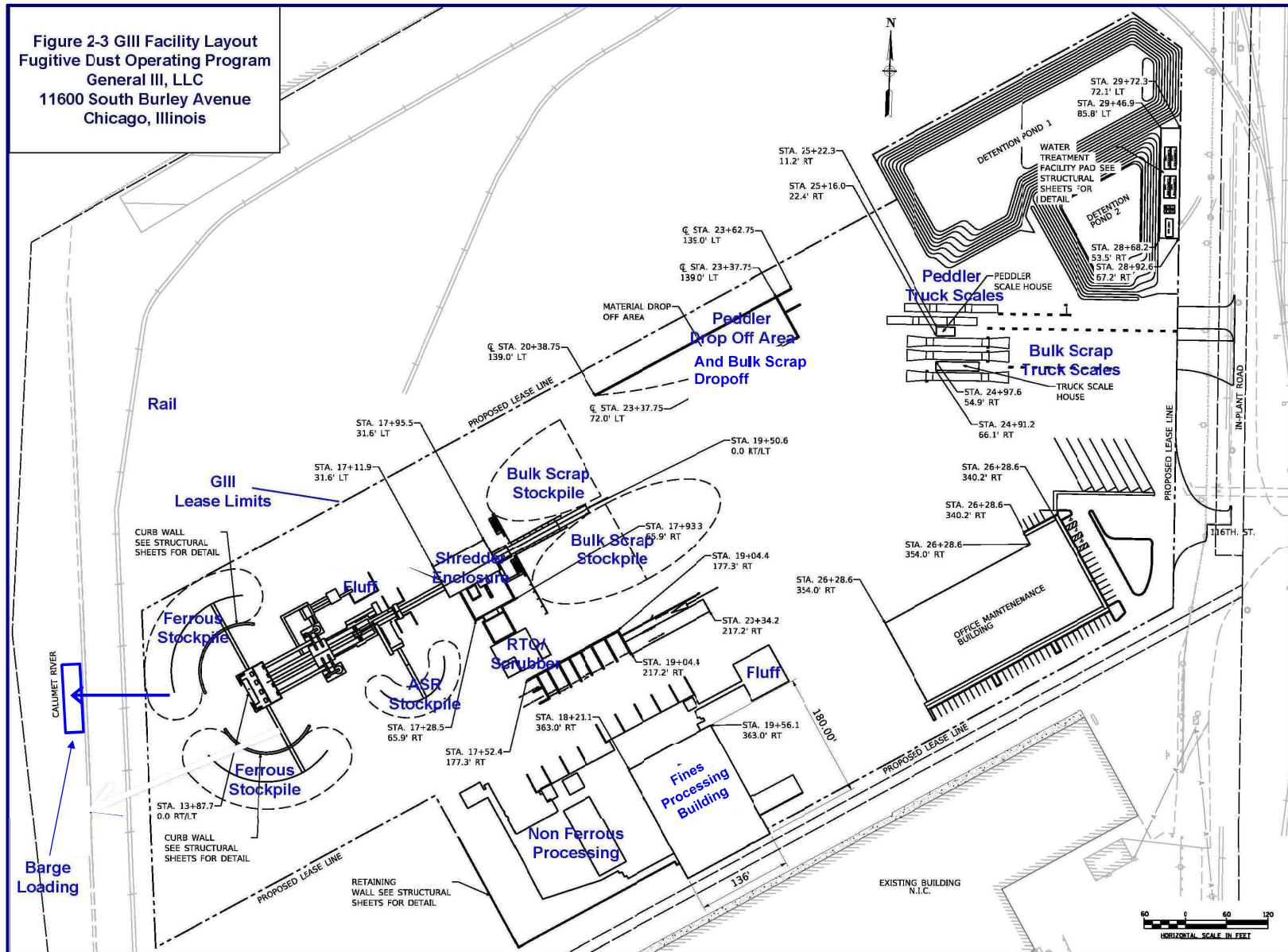
FIGURES

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Figure 2-3 GIII Facility Layout
Fugitive Dust Operating Program
General III, LLC
11600 South Burley Avenue
Chicago, Illinois



 = Covered Conveyor



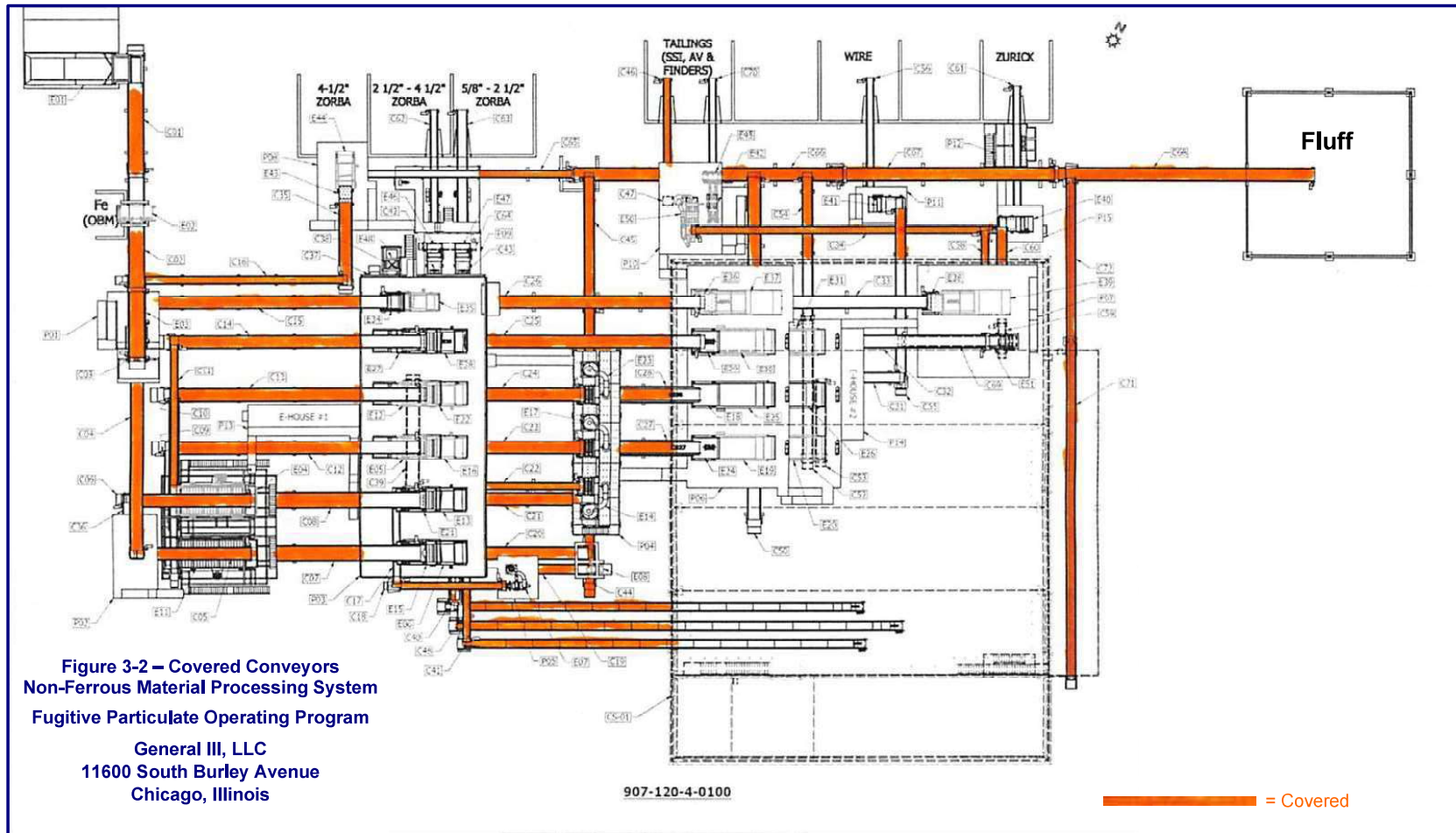


Figure 4.1 Anticipated Dust Boss Locations
Fugitive Dust Operating Program
General III, LLC
11600 South Burley Avenue
Chicago, Illinois

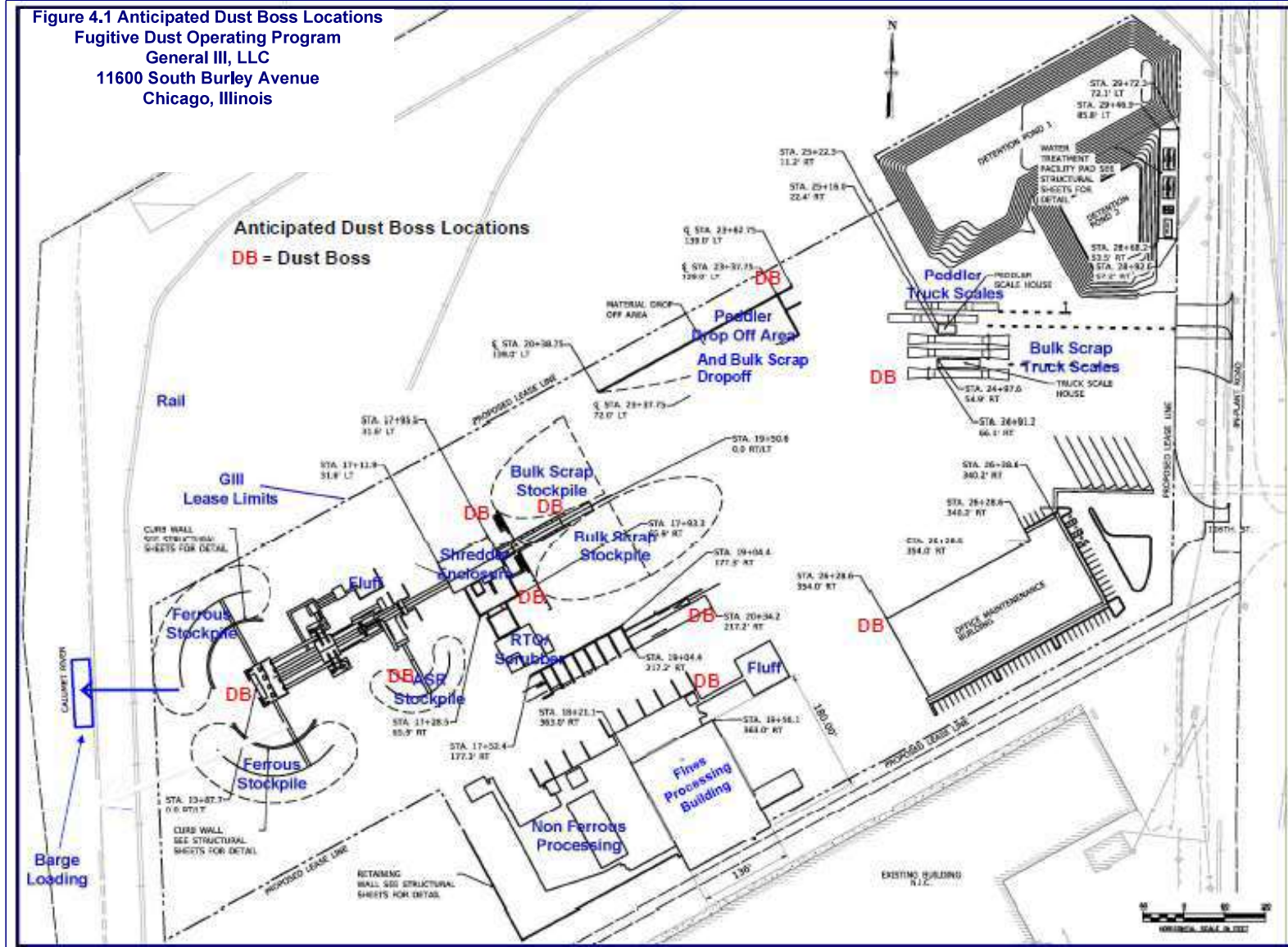
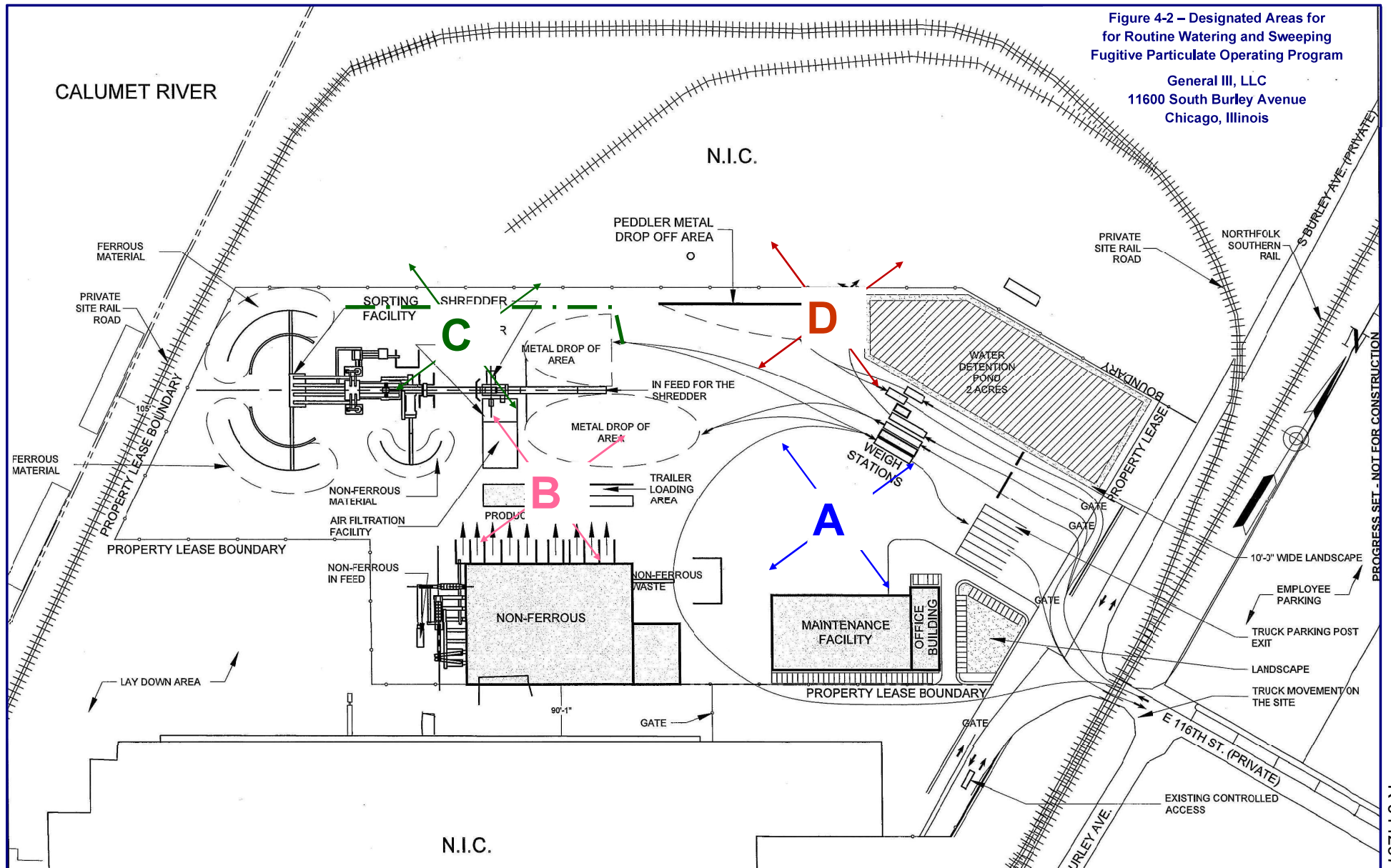


Figure 4-2 – Designated Areas for
for Routine Watering and Sweeping
Fugitive Particulate Operating Program

General III, LLC
11600 South Burley Avenue
Chicago, Illinois



PROGRESS SET - NOT FOR CONSTRUCTION

R 011297

Layman, Robb

From: Jones, Eric E.
Sent: Thursday, June 25, 2020 3:17 PM
To: Mohr, Kent; Armitage, Julie; Layman, Robb
Subject: FW: Final GIII Fugitive Dust Plan
Attachments: 2020-06-25 FINAL GIII Fugitive Dust Plan.pdf; 2020-06-25 FDP - FINAL GIII Fugitive Dust Plan.docx

From: John Pinion <jpinion@rka-inc.com>
Sent: Thursday, June 25, 2020 3:09 PM
To: Jones, Eric E. <Eric.E.Jones@Illinois.gov>
Cc: GII, LLC; Labkon, Adam (adamlabkon@general-iron.com) <AdamLabkon@General-Iron.com>; Steve Joseph <SteveJoseph@reserve-group.com>; Reserve Management Group; Tolin, Hal (haltolin@reserve-group.com) <haltolin@reserve-group.com>; GII, LLC; Kallas, Jim (jimkallas@general-iron.com) <jimkallas@general-iron.com>; Zwick, Ann M. <azwick@freeborn.com>
Subject: [External] Final GIII Fugitive Dust Plan



Eric,

Attached is a final redline and an Adobe file with the Final GIII Fugitive Dust Plan.

If you have any questions, please do not hesitate to contact me.

Regards,
 John Pinion

RK & Associates, Inc.
 2 South 631 Route 59, Suite B
 Warrenville, Illinois 60555
 Phone: 630-393-9000 x 208
 Fax: 630-393-9111
 Cell: 630-917-1455
 E-mail: jpinion@rka-inc.com

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5.0 VOLUNTARY QUARTERLY REPORTING

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Each quarterly report will include the following information:

- Industrial Campus boundary line observation records
- Water Truck Log
- Sweeper Log
- Dust Boss system water application (gal/day)
- Summary of equipment replacement and maintenance of Visible Emissions mitigation equipment.



June 2~~5~~², 2020

R17421-7.2

Mr. Eric Jones
Illinois Environmental Protection Agency - Bureau of Air
1021 North Grand Avenue East
Springfield, IL 62702

**Revised Fugitive Particulate Operating Program for a
Scrap Metal Recycling Facility
General III, LLC – 11600 South Burley - Chicago, Illinois**

Dear Mr. Jones:

Please find attached a revised copy of the Fugitive Particulate Operating Program for the proposed General III, LLC (GIII) Scrap Metal Recycling Facility located in Cook County at 11600 South Burley Avenue in Chicago, Illinois. This revised copy of the Program addresses comments received from IEPA on June 19 and 24, 2020.

An electronic copy of the above referenced document has also been forwarded to you and Ms. Julie Armitage.

If you have any questions or need any additional information, please don't hesitate to contact us at 630-393-9000.

Yours very truly,
RK & Associates

A handwritten signature in black ink, appearing to read "John G. Pinion". The signature is fluid and cursive, with a large initial "J" and "P".

John G. Pinion
Associate Engineer

cc: Mr. Jim Kallas – General III, LLC – Chicago, Illinois (via e-mail)
Ms. Julie Armitage – IEPA Bureau of Air – Springfield, Illinois (via-e-mail)

**Fugitive Particulate Operating Program
General III, LLC –
11600 S Burley Avenue - Chicago, Illinois
June 25², 2020**

R17421-7.2

Prepared for:
**General III, LLC
1909 North Clifton Avenue
Chicago, Illinois 60614
Attn: Mr. Jim Kallas**

Prepared by:
**John G. Pinion
Principal Engineer
RK & Associates, Inc.**



**2 South 631 Route 59
Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000
Fax: 630-393-9111**

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Facility Location and Contact Information	1
1.2 Regulatory Requirements	2
1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301	2
1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program	2
1.3 Definition of Visible Emissions	2
1.4 Industrial Campus Boundaries	2
2.0 FACILITY SITE MAP	3
3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR MITIGATION OF VISIBLE EMISSIONS	5
3.1 Raw Material Unloading/Handling	7
3.2 Material Transfer Points	78
3.3 Intermediate and Product Stockpiles	89
3.4 Fluff Storage and Loadout	810
3.5 Truck Loadout	911
3.6 Paved Areas	101
3.7 Unpaved Areas	113
3.8 Off-Site Employee Parking Area	123
3.9 Vehicle Tarping	134
3.10 Barge Loading	135
3.11 Rail Car Loading	146
3.12 Industrial Campus Boundary Line Observations for Visible Emissions	146
4.0 RECORDKEEPING	17
4.1 Meteorological Data	17
4.2 Visible Emissions Observation and Control Form	17
4.3 Water Truck Log	17
4.4 Sweeper Log	18
4.5 Dust Boss System Water Application	18
4.6 Visible Emissions Mitigation Equipment Replacement and Maintenance	18

4.7 Monthly Inspections of Visible Emissions Mitigation Equipment	19
5.0 VOLUNTARY QUARTERLY REPORTING	21
6.0 PROGRAM AMENDMENT	23

TABLES

Table 3-1 Summary of Facility Operations and Best Management Practices for	6
Mitigation of Visible Emissions	

FIGURES

Figure 2-1 Facility Location Map	
Figure 2-2 Facility Layout Map	
Figure 2-3 Facility Layout Drawing	
Figure 3-1 Covered Conveyors - Ferrous Material Processing System	
Figure 3-2 Covered Conveyors – Non-Ferrous Material Processing System	
Figure 4-1 Anticipated Dust Boss Locations	
Figure 4-2 Designated Areas for Routine Watering and Sweeping	



1.0 INTRODUCTION

This Fugitive Particulate Operating Program (Program) has been prepared for the General III, LLC (GIII) scrap metal recycling facility as a condition of Illinois Environmental Protection Agency (IEPA) Construction Permit No. 19090021.

GIII is a recycling facility (Facility) located in an existing established industrial district. GIII is configured to process 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, and shipment of finished products to customers.

The objective of this Program is to identify, monitor, and treat (as may be necessary) sources of Visible Emissions (defined in Section 1.3). GIII is implementing this Program to meet applicable regulatory standards.

1.1 Facility Location and Contact Information

<u>Business Name:</u>	General III, LLC
<u>Source Location:</u>	11600 South Burley – Chicago, Illinois 60617 Hyde Park Township, Cook County Illinois
<u>Latitude/Longitude</u>	41.685201° N / -87.545847° W – Approximate Location of Front Gate
<u>Office/Mailing Address:</u>	1909 N. Clifton Avenue – Chicago, Illinois 60614
<u>Authorized Representative Responsible for this Program:</u>	Mr. Jim Kallas – Environmental Manager 847-508-9170 – jimkallas@general-iron.com
<u>IEPA Site ID No.:</u>	031600SFX
<u>SIC Code:</u>	5093 – Scrap and Waste Materials
<u>NAICS Code:</u>	423930 – Recyclable Material Merchant Wholesalers

1.2 Regulatory Requirements

1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301

GIII is subject to the general limitation for fugitive particulate matter identified in 35 IAC 212.301, which requires that:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program

Pursuant to 35 IAC 212.302, a Fugitive Particulate Operating Program is required for any facility with operations belonging to specified groups of Standard Industrial Classification (SIC) Codes **and** that are located within a specified area. GIII is located in Cook County, which is a specified area under 35 IAC 212.302; however, GIII's SIC Code (5093 Scrap and Waste Materials) is **not** among the specified SIC codes. Therefore, GIII is not subject to a requirement to have a Fugitive Particulate Operating Program.

Although not required by regulations, this Fugitive Particulate Operating Program establishes the best management practices that will be used to minimize potential Visible Emissions and ensure compliance with 35 IAC 212.301.

1.3 Definition of Visible Emissions

For the purposes of this Program, "Visible Emissions" means the existence of visible fugitive particulate matter emissions that threatens to cross the Industrial Campus Boundary.

Visible Emissions do not include steam (water vapor), engine combustion exhaust, and particulate matter emitted from permitted exhaust stacks with or without a pollution control device because each permitted exhaust point has a separate opacity limit and particulate mass emission limit included in the facility construction/operation permit.

1.4 Industrial Campus Boundaries

For the purposes of this Program, the "property line" as referenced in 35 IAC 212.301, is the boundary of the existing Industrial Campus located at 11600 South Burley Avenue in Chicago, Illinois identified in Figure 2-2 (Industrial Campus Boundary).



2.0 FACILITY SITE MAP

The location of GIII is shown on Figures 2-1 and 2-2. GIII operates on approximately 25 acres within the Industrial Campus. Four other affiliated material recycling businesses are located within the Industrial Campus. Combined emissions from these other businesses qualify for, and are currently registered under, IEPA's Registration of Smaller Source (ROSS) Program.

The GIII scrap metal recycling facility is shown on Figure 2-3. The Facility Site Map indicates the locations of the Facility boundaries, buildings, location of material handling and processing areas, shredder enclosure, shredder emission control system, stockpiles, truck scales and facility vehicle entrance.

When initially constructed the Facility surface area will be comprised of 62% concrete and asphalt pavement and 8% stormwater retention pond. The remaining area includes ancillary support buildings, green space and unpaved surface consisting compacted asphalt gravel, asphalt grindings or similar materials.

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3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR MITIGATION OF VISIBLE EMISSIONS

Raw materials are delivered to the facility from a variety of sources including retail, commercial/industrial accounts via trucks or contract haulers and peddlers via peddler vehicles. Peddlers and semi-trucks entering the facility first pass through a truck scale.

Semi-trucks are then directed to a material staging area near the raw material stockpiles. Designated Facility personnel inspect all loads for unauthorized materials in accordance with Facility procedures. In this regard, the facility is subject to a Feed Stock Management Plan requirement in the facility construction permit. After unloading, the semi-trucks and peddler vehicles exit the Facility after passing over the appropriate truck scale.

The shredding process produces ferrous metal and Automobile Shredder Residue (ASR) which contains non-metallic material, non-ferrous metal and a limited amount of ferrous metal. Ferrous metal is processed to remove non-metallic material through a series of material handling steps in the Ferrous Metal Processing system to produce clean ferrous metal.

The ASR is directed to a stockpile for temporary storage prior to processing. ASR is transferred a short distance from the ASR stockpile to the Non-Ferrous Metal Processing system using a rubber-tired loader. ASR is processed by a variety of advanced material handling and separation equipment in the Non-Ferrous Metal Processing system to recover various sizes and grades of non-ferrous metals. Non-metallic material removed by the Non-Ferrous Metal Processing system is directed to a stockpile prior to being loaded into semi-trucks for off-site disposal at an appropriately licensed landfill.

Wherever the information in this Section 3 references application of water for mitigation of Visible Emissions, the following limitations are applicable:

- Application of water will be limited following precipitation events exceeding 0.1 inches.
- Application of water cannot be performed when temperatures are near or below freezing because water application will create unsafe conditions. [During these time periods, the facility will lower the posted speed limit to 5 mph.](#)

Table 3-1 summarizes facility operations with the potential to generate Visible Emissions and the Best Management Practices (BMPs) that will be utilized to achieve compliance with 35 IAC 212.301. For the purposes of this Program, compliance with 35 IAC 212.301 is determined at the Industrial Campus Boundary. Detailed descriptions of the BMPs are presented in Section 4.0.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

**Table 3-1 – Summary of Facility Operations and
Best Management Practices for Mitigation of Visible Emissions**

Operation	Best Management Practices					
	Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Additional BMPs	As Described in Section
Raw Material Unloading/Handling	X	X	X		Feed Stock Management Plan	3.1
Shredder Enclosure	X				Water injection/shredder emissions capture and control system	3.2
Material Transfer Points	X	X			Conveyor covers on selected conveyors	3.23
Intermediate and Product Stockpiles	X	X	X		Partial enclosures (side walls) on selected stockpiles	3.34
Fluff Storage and Loadout	X	X	X		Fluff storage bin with steel walls on three sides and equipped with a cover.	3.45
Fines Processing Building					Enclosed in a building with building exhaust treated by dust collectors	3.6
Material Loadout	X		X		Water spray	3.57
Traffic Areas – Paved Areas	X	X	X		Water Truck, Sweeper, and vehicle speed limit of 10 mph	3.68
Traffic Areas – Unpaved Areas	X	X		X	Water Truck, Sweeper, and vehicle speed limit of 10 mph	3.79
Off-Site Employee Parking	X		X	X	Speed bumps and speed limit signs to limit speed to 10 mph.	3.810
Vehicle Tarping					Trailers of outbound Fluff will be tarped.	3.911
Barge Loading	X				Specially designed chute extending downward from end of conveyor. When using mobile equipment drop distances will be reduced and water will be applied to material prior to loading.	3.102
Rail Car Loading	X				Minimize drop distance. Water material prior to loading.	3.113

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control**

**Table 3-1 – Summary of Facility Operations and
Best Management Practices for Mitigation of Visible Emissions**

Operation	Best Management Practices					
	Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Additional BMPs	As Described in Section
Industrial Campus Boundary	X				Identify the source(s) of Visible Emissions and take corrective actions as described herein.	3.1 2 ⁴

3.1 Raw Material Unloading/Handling

Raw scrap in bulk trucks (semi-trailers) is dumped on the ground near the shredder infeed conveyor where cranes equipped with magnets or grapples sort through the material and place it on a raw material stockpile or onto the shredder infeed conveyor of the shredder. These or other cranes equipped with magnets or grapples then transfer the material from the stockpiles to the shredder infeed conveyor.

The space available for stockpiling raw material is limited, and therefore, the material is typically processed within several days of its receipt. The raw material stockpiles will not be used for long term storage.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of each raw material unloading and handling area for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized to mitigate Visible Emissions.
- ii. Areas adjacent to raw material handling operations will be included in the watering and sweeping of paved areas described in Section 3.8.

3.2 — Shredder Enclosure

The shredder will be located in a partial enclosure with acoustic roof and wall panels. The majority of one side of the enclosure, adjacent to the shredder, is a solid wall extending to ground level. The remainder of that wall and the other three walls consist of acoustic panels that extend to approximately 18 feet from ground level. Rubber belts then extend downward covering a portion of the lower 18 feet. There will be an open area at the bottom to allow access to the interior of the enclosure for equipment maintenance. Shredder emissions are captured by a hood located over the top of the shredder and are routed to the shredder emission control system. Captured particulate emissions are not fugitive emissions.

Potential sources of Visible Emissions inside the shredder enclosure include conveyor transfer points and potential uncaptured particulate emissions from the shredder. The shredder enclosure acts as a control device by allowing particulate to settle to the ground inside the building.

C. — Inspections/Observations:

- vi. Trained personnel will conduct visual observations of the shredder enclosure for the presence of Visible Emissions three times per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

C. — Visible Emissions Mitigation Measures:

- viii. If Visible Emissions are observed exiting the shredder enclosure, operators will perform a system inspection to identify the potential source and cause of the Visible Emissions and take appropriate corrective actions, which may include a change in the shredder water injection rate or shredder emissions capture and control system operating parameters.

3.93.2 Material Transfer Points

Material will be primarily transported through the Ferrous and Non-Ferrous Material Processing Systems on a series of belt conveyors. A material transfer point is the point at which material from an upstream conveyor is transferred to a downstream conveyor, the point at which an upstream conveyor feeds a piece of processing equipment, or the point at which a piece of processing equipment discharges material onto a takeaway conveyor. Visible Emissions from a transfer point may occur when the material being transferred has a high concentration of fine material and low moisture content.

Figure 3-1 identifies conveyors in the Ferrous Material Processing System that are equipped with covers, which are limited to the ASR takeaway conveyors and the Fluff take away conveyors.

Figure 3-2 identifies conveyors in the Non-Ferrous Material Processing System that are equipped with covers, which include all outside conveyors except those that convey clean metallic products that do not contain material that is subject to becoming Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. When Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Water will be applied to facility areas with the highest potential for Visible Emissions.

3.103.3 Intermediate and Product Stockpiles

The space available for stockpiling intermediates and products is limited and, therefore, these materials are typically processed or shipped off site regularly. These stockpiles will not be used for long term storage of materials.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material stockpiles for the presence of Visible Emissions once per day at each stockpile with the results recorded on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles when Visible Emissions are observed.
- i. With the exception of the Raw Material stockpiles, the two Ferrous Metal Stockpiles, and the ASR stockpile, all stockpiles identified in facility emission estimates will have solid partitions on three sides.
- ii. Areas adjacent to stockpiles will be included in the watering and sweeping of paved areas described in Section 3.8.

3.143.4 Fluff Storage and Loadout

“Fluff” is the term used to refer to the waste product from the Non-Ferrous Material Processing System.

The Fluff Storage Bin has been designed to mitigate Visible Emissions from the bin. The Fluff Storage Bin is enclosed on three sides by steel walls and on the top with a fixed cover.

One side of the bin is required to be open to allow access for a rubber-tired end loader for material loadout to trucks. The open side of the bin faces west, away from residential areas located east of the facility. A Dust Boss is also located near the west side of the bin to mitigate Visible Emissions.

A rubber-tired end loader is used to transfer fluff from the Fluff Storage Bin to trailers. After the trailers are filled, they are tarped before they leave the facility.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the Fluff Storage Bin for the presence of Visible Emissions three times per day and record the results on a VEOC form. At least one of these observations will be made during Fluff loadout. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. A Dust Boss water atomizer, located near the bin, will be used to mist the west side of the bin to mitigate fugitive dust and the material loadout area if Visible Emissions are observed.
- ii. Areas adjacent to the Fluff Storage Bin will be included in the watering and sweeping of paved areas described in Section 3.8.

3.12 — Fines Processing Building

~~Fines Processing is performed in the Fines Processing Building. The building is equipped with four identical baghouses that collect dust from specific points in the process using a network of duct work and hoods. Dust captured in the collection system is routed to a baghouse filter. Treated air from three of the four baghouses is exhausted back into the building. The treated air from the fourth baghouse is discharged to the atmosphere. Particulate emissions in the baghouse exhaust stream that is discharged to the atmosphere are not fugitive emissions.~~

C. Inspections/Observations:

- ~~xv. Trained personnel will conduct visual observations of each conveyor wall opening and personnel/equipment access door in the Fines Processing Building for the presence of Visible Emissions once per day and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.~~

C. Visible Emissions Mitigation Measures:

- ~~xvii. Personnel/equipment service doors shall be closed when not in use and the baghouses shall be functioning properly.~~
- ~~xviii. Particulate matter collected by the baghouses shall be collected on a covered conveyor and transferred to the Fluff Storage Bin.~~

3.193.5 Truck Loadout

Product loadout occurs when stockpiled material is transferred to trucks using a rubber-tired loader, or material handler.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of each loadout area that is active at the time the observations are performed. Each active material loadout area is observed for the presence of Visible Emissions three times per day and results are recorded on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Water will be applied to material and adjacent loadout areas when Visible Emissions are observed.
- ii. Areas adjacent to material loadout activity will be included in the watering and sweeping of paved areas described in Section 3.8.

3.203.6 Paved Areas

The paved areas with the highest potential for Visible Emissions are the traffic routes used by vehicles delivering raw material or transporting materials from the site.

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control**

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. The most frequently traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day. Observation locations will be identified prior to facility startup.

B. Visible Emissions Mitigation Measures:

- i. Speed limit signs, limiting vehicle speed to 10 mph, will be posted on vehicle travel routes.
- ii. Water will be applied to the most frequently used paved areas at least once per day, subject to the weather conditions identified above. Water will be applied to less frequently traveled routes at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation). If water is not be applied, the reason will be noted on the VEOC form.

- iii. Sweeping of the most frequently traveled routes will occur at least once per day when the facility is operating subject to the weather conditions identified above. Sweeping of less frequently traveled routes will occur at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation). If sweeping is not performed, the reason will be noted on the VEOC form.

- iv. Rumble Strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

The Rumble Strip area will be routinely inspected, and accumulated material removed on a regular basis to ensure effective operation.

3.243.7 Unpaved Areas

Limited areas within the Facility that are not paved with concrete or asphalt are covered with compacted asphalt grindings or similar material. Visible Emissions from unpaved areas are associated with vehicle use.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. The most frequently used areas will be observed three times per day and less frequently used areas will be observed once per day. Observation locations will be identified prior to facility startup.

B. Visible Emissions Mitigation Measures:

- i. Speed limit signs, limiting vehicle speed to 10 mph will be posted on vehicle travel routes.
- ii. Water will be applied to the most frequently used unpaved areas at least once per day subject to the weather conditions identified above. Water will be applied to the less frequently used areas at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation). If water is not be applied, the reason will be noted on the VEOC form.

- iii. If Visible Emissions are observed from unpaved areas during weather conditions that prohibit water application, alternative control measures will be evaluated. Evaluation and potential application of alternative mitigation measures will be based on operating experience and routine observations. Alternative mitigations measures may include but are not limited to minimizing activity in unpaved areas, application of surfactant prior to winter conditions, or placement of additional asphalt grindings or similar material.

3.223.8 Off-Site Employee Parking Area

There is administrative parking adjacent to the administration building inside of the Facility. The administrative parking area will be maintained as described in Section 3.8.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

There is also an [off-site](#) employee parking lot located east of the railroad tracks that parallels the east Industrial Campus Boundary and just north of vacated 116th Street, which is a nonpublic street west of Avenue O used by the Facility under an existing easement agreement.

Because employee vehicles will not routinely enter the facility, material track-in to the parking area will be negligible.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the [off-site](#) employee parking lot for the presence of Visible Emissions and record the results on a VEOC form. The [off-site](#) parking area will be observed once per day when employees are entering or leaving the area. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. The [off-site employee](#) parking area will be equipped with speed bumps and speed limit signs will be posted to limit vehicle speeds to 10 mph.
- ii. When Visible Emissions are observed, water will be applied to those areas.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).

- iii. Sweeping of the paved areas of the [off-site employee](#) parking lot will be performed once per month subject to the weather conditions identified above.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation).

3.233.9 **Vehicle Tarping**

Tarps are utilized on outgoing Fluff trailers because this material has the potential to become airborne during transport. Fluff trailers are tarped before leaving the Facility.

Based on operating experience, Fluff is the only material, incoming or outgoing, that has the potential to become airborne during transportation. It is not practical to tarp trailers of inbound scrap metal, outbound

trailers of shredded metal or other products because these materials do not generate airborne material during transport and, if covered, tarps would be cut or torn by pieces of scrap and further damaged during transport. The Illinois Department of Transportation (IDOT) governs the transport of material on roadways.

Outbound rail cars and barges filled with shredded steel and other products are also not tarped because these materials do not generate airborne material during transport. Outbound trucks, rail cars and barges are all constructed with solid floors and side walls but have open tops to facilitate loading and unloading.

A. Inspections/Observations:

- i. Outbound rail cars and trucks leaving the site, including Fluff trailers, are visually inspected by scale operators.

These inspections are part of the normal responsibilities of the scale operators and are not recorded or otherwise documented.

B. Visible Emissions Mitigation Measures:

- i. Fluff trailers are tarped before leaving the Facility.

3.243.10 Barge Loading

Barges will be loaded by a conveyor equipped with a specially designed chute. Barges could also be loaded by mobile equipment, in which case, water will be applied to the material to mitigate potential for Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of Barge Loading for the presence of Visible Emissions at least once during the loading of each barge and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. When loading barges with a conveyor, the conveyor will be equipped with a specially designed chute extending downward or a water spray to mitigate Visible Emissions.
- ii. When loading barges with mobile equipment, drop distances will be minimized and water will be applied to the material to mitigate Visible Emissions.

- iii. Areas adjacent to Barge Loading will be included in the watering and/or sweeping of paved and/or unpaved areas described in Sections 3.8 and 3.9.

3.253.11 Rail Car Loading

Rail cars are loaded by material handlers that include end loaders, grapples, and magnets. Grapple and magnet operators are trained to limit the drop distance of material into the rail cars to minimize the potential for Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of Rail Car Loading for the presence of Visible Emissions at least once each day during the loading of rail cars and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Material drop distances will be minimized by grapple and magnet operators to minimize the potential for Visible Emissions.
- ii. When loading rail cars with mobile equipment, drop distances will be minimized and water will be applied to the material to mitigate Visible Emissions.
- iii. Areas adjacent to Rail Car Loading will be included in the watering and/or sweeping of paved and/or unpaved areas described in Sections 3.8 and 3.9.

3.263.12 Industrial Campus Boundary Line Observations for Visible Emissions

Observations will be performed at the North, South, East, and West Industrial Campus boundaries.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations at least once per day of the North, South, East and West boundaries of the Industrial Campus for the presence of Visible Emissions and record the results on a VEOC form.

B. Visible Emissions Mitigation Measures

- i. If Visible Emissions are noted crossing the Industrial Campus boundary, facility personnel will investigate potential sources of the observed Visible Emissions and take corrective action to mitigate the observed Visible Emissions.



4.0 RECORDKEEPING

Records will be maintained as required by this Program and the permit.

4.1 Meteorological Data

An onsite meteorological data station (met station) will be installed and operated to record hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts. The met station will be centrally located at a minimum height pursuant to applicable USEPA protocols and guidance. Met data will be downloaded and stored electronically at the Facility.

Meteorological data will be recorded and maintained electronically on site. Data will include hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts.

4.2 Visible Emissions Observation and Control Form

A Visible Emissions Observation and Control (VEOC) Form will be used to record the results of Visible Emissions observations described in Section 3 and the corresponding mitigation measures applied.

The VEOC form will include the following information:

- Date/Time
- Name of Observer
- Area(s) Observed
 - Time of Observation
 - Visible Emissions Observed – Yes/No
 - > Approximate migration distance from source (ft)
 - Mitigation Measures Applied – Yes/No
 - > If Yes, identify Mitigation Measures Implemented

4.3 Water Truck Log

[The water truck will make routine rounds in the areas identified in Figure 4-2.](#) A log of water truck use will be generated by the operator to record water applications to paved and unpaved areas. This log will include:

- Date/Time
- Reason No Watering Was Performed (if applicable)
- Name of Water Truck Operator
- Reason for Water Application
 - Scheduled, or

- Corrective Action in response to a Visible Emissions Observation
- Area(s) of Water Application
 - Time of Application
 - Approximate Amount of Water Applied (gallons)

4.4 Sweeper Log

A log of sweeper operation will be generated by the operator to record sweeping events. This log will include:

- Date/Time
- Reason No Sweeping Was Performed (if applicable)
- Name of Sweeper Operator
- Reason for Sweeping
 - Scheduled, or
 - Corrective Action in response to a Visible Emissions Observation
- Area(s) Swept
 - Time of Sweeping

4.5 Dust Boss Water Application

A water meter will be used to document the daily volume of water applied by the Dust Boss system. [Figure 4-1 identifies the anticipated location of Dust Bosses.](#)

4.6 Visible Emissions Mitigation Equipment Replacement and Maintenance

Records of replacement or maintenance performed on Visible Emissions mitigation equipment will be performed in accordance with manufacturers recommendations and records will be maintained by the Facility personnel. This information will identify:

- Maintenance performed on the water truck
- Maintenance performed on the sweeper
- Maintenance of Dust Bosses
- Replacement of Dust Bosses or other equipment

4.7 Monthly Inspections of Visible Emissions Mitigation Equipment

Facility personnel will perform monthly visual inspections of the following Visible Emissions mitigation equipment to ensure it is in good operating condition and functioning as intended.

Monthly visual inspections of the following equipment will be performed to ensure these are in good condition.

- Shredder Enclosure
- Ferrous Material Processing System Conveyor Covers
- Non-Ferrous Material Processing System Conveyor Covers
- Fluff Storage Bin
- Barge Loading Chute
- Water application systems

Results of these inspections will be recorded on a form that will include the following information:

- Equipment Being Inspected
- Date/Time of Inspection
- Person Conducting Inspection
- Check List of Equipment Features and Condition (acceptable / unacceptable)
 - Description of unacceptable conditions
- Date of corrective action (if required).
 - Description of Correction Action (if required)

The above referenced checklists will be developed after construction is complete.

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5.0 VOLUNTARY QUARTERLY REPORTING

Although not required, the following information will be reported to the IEPA on a quarterly basis. Quarterly reports will be submitted by the first day of the second month following the end of each calendar quarter.

January through March	Submitted May 1 st
April through June	Submitted by August 1 st
July through September	Submitted by November 1 st
October through December	Submitted by February 1 st

Each quarterly report will include the following information:

- Industrial Campus boundary line observation records
- Water Truck Log
- Sweeper Log
- Dust Boss system water application (gal/day)
- Summary of equipment replacement and maintenance of Visible Emissions mitigation equipment.

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6.0 PROGRAM AMENDMENT

This Fugitive Particulate Operating Program shall be amended from time to time so that the operating program is current. Program amendments will be submitted to the Illinois EPA within thirty (30) days of such amendment. Any future revision to this Program made by GIII is automatically incorporated by reference as an enforceable condition of the Facility construction/operation permit, unless it is expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies GIII of a deficiency with any revision to the Program, GIII will revise and re-submit the Fugitive Particulate Operating Program within thirty (30) days of receipt of notification to address the deficiency.

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Fugitive Particulate Operating Program

**General III, LLC
11600 South Burley
Chicago, Illinois 60614**

FIGURES

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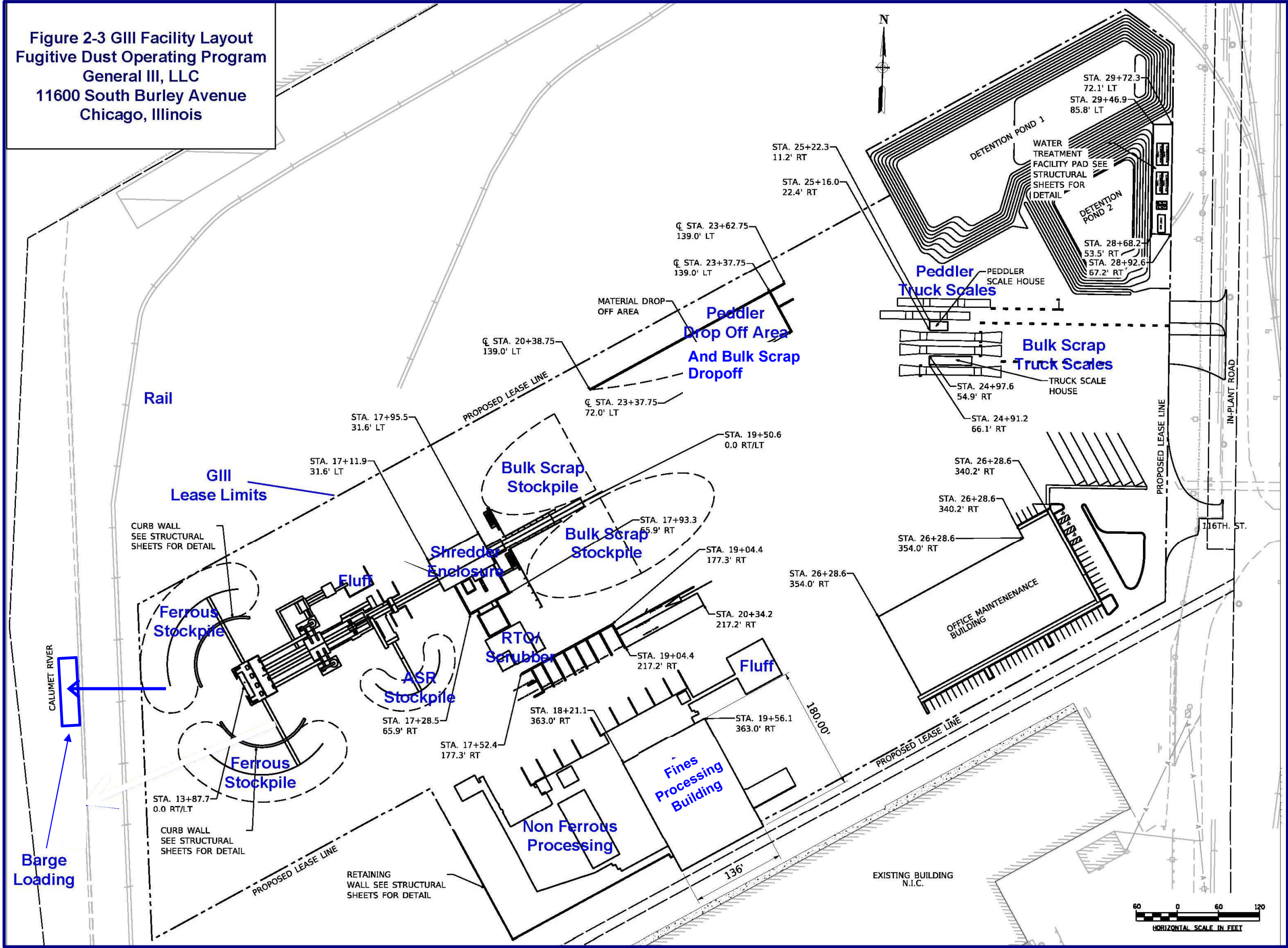
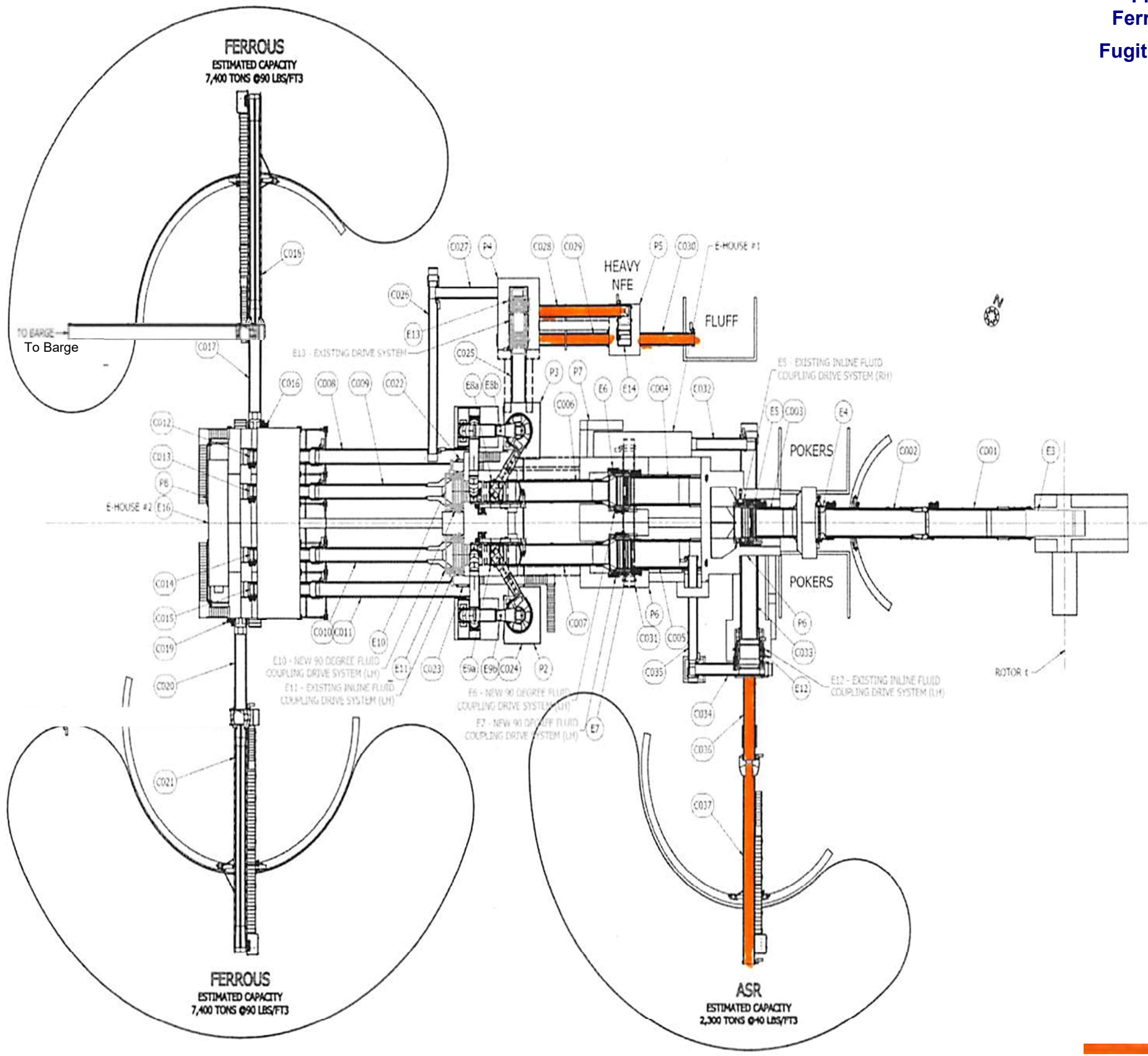
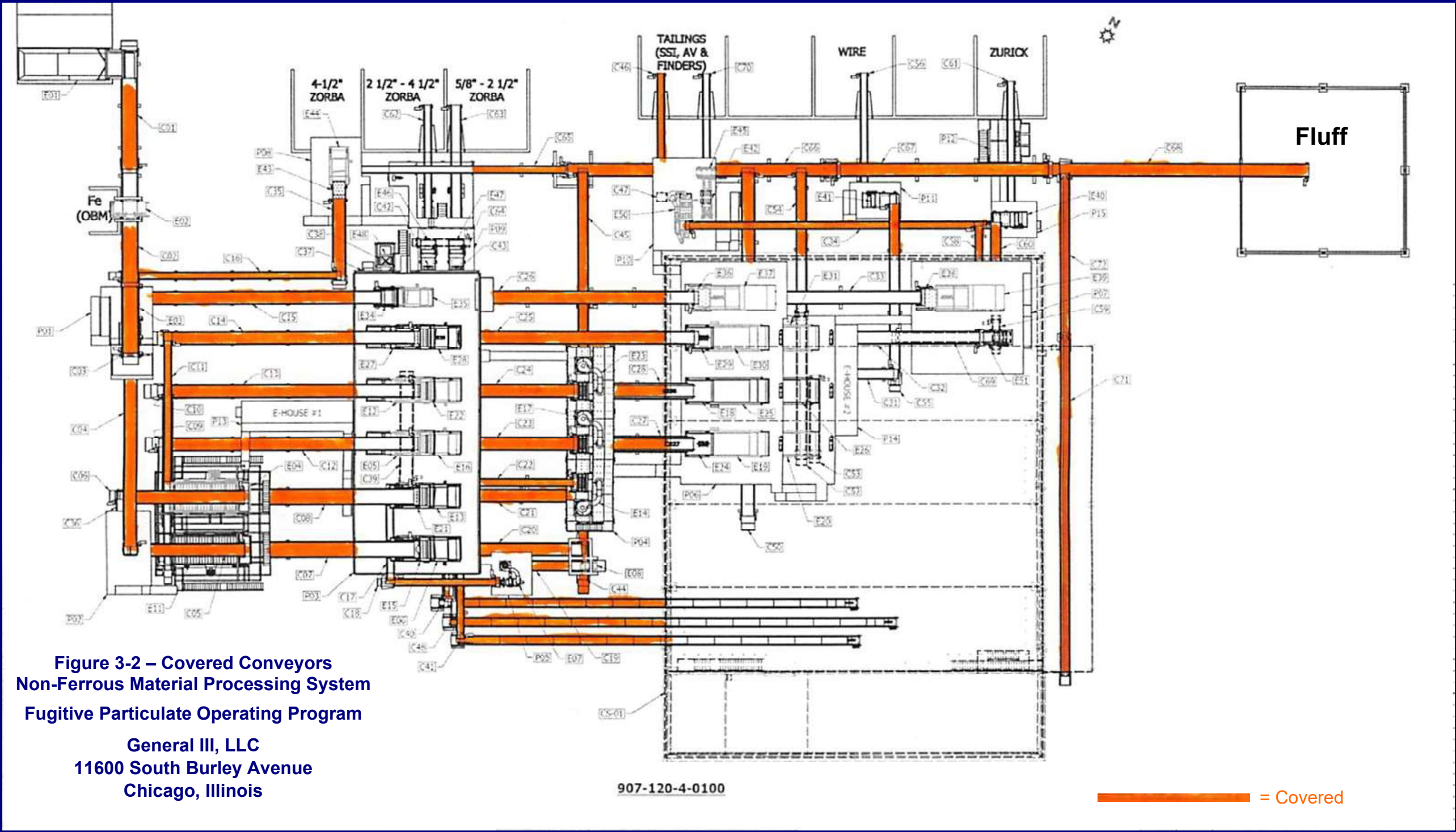


Figure 3-1 – Covered Conveyors
Ferrous Material Processing System
Fugitive Particulate Operating Program

General III, LLC
11600 South Burley Avenue
Chicago, Illinois





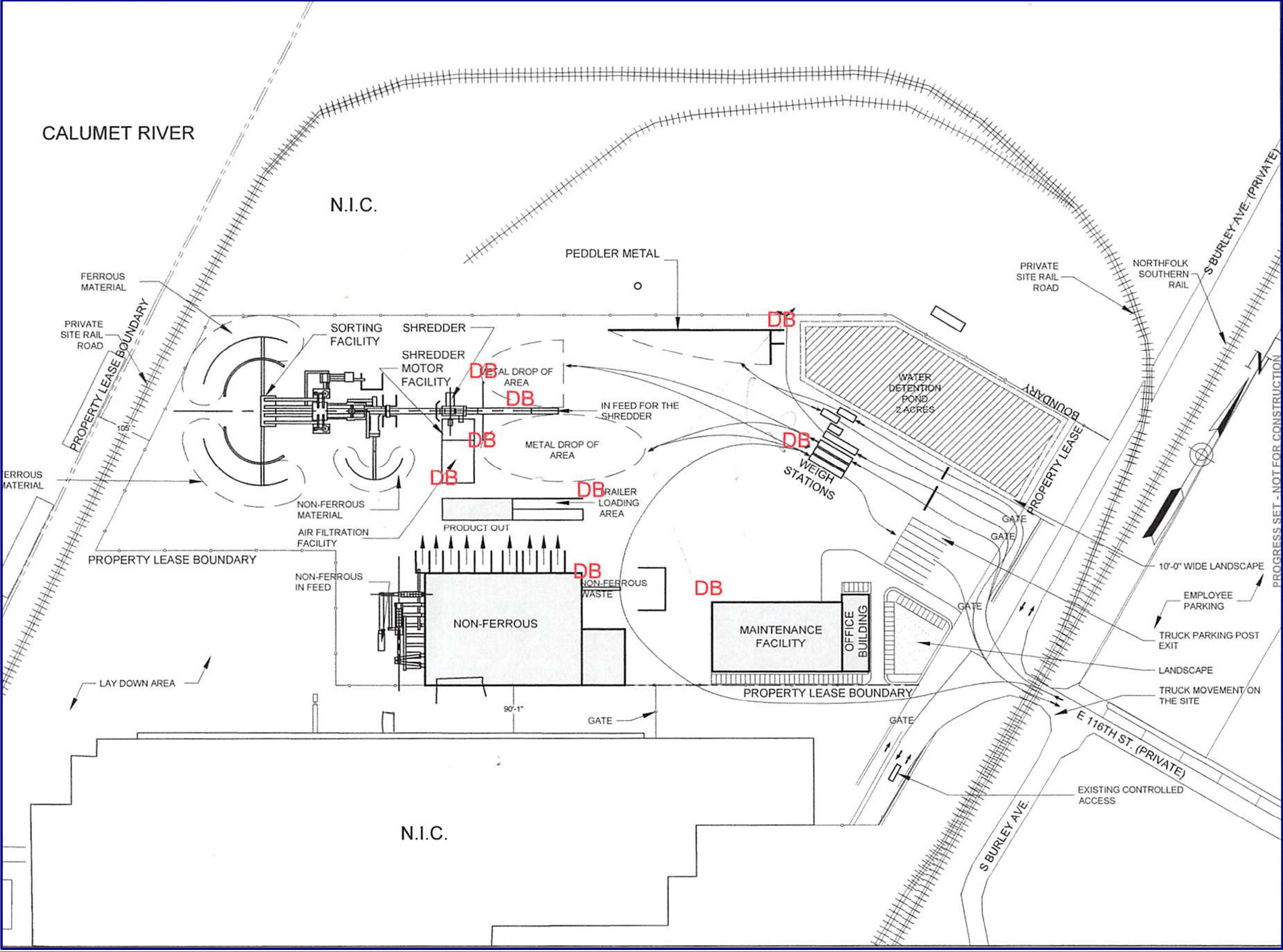
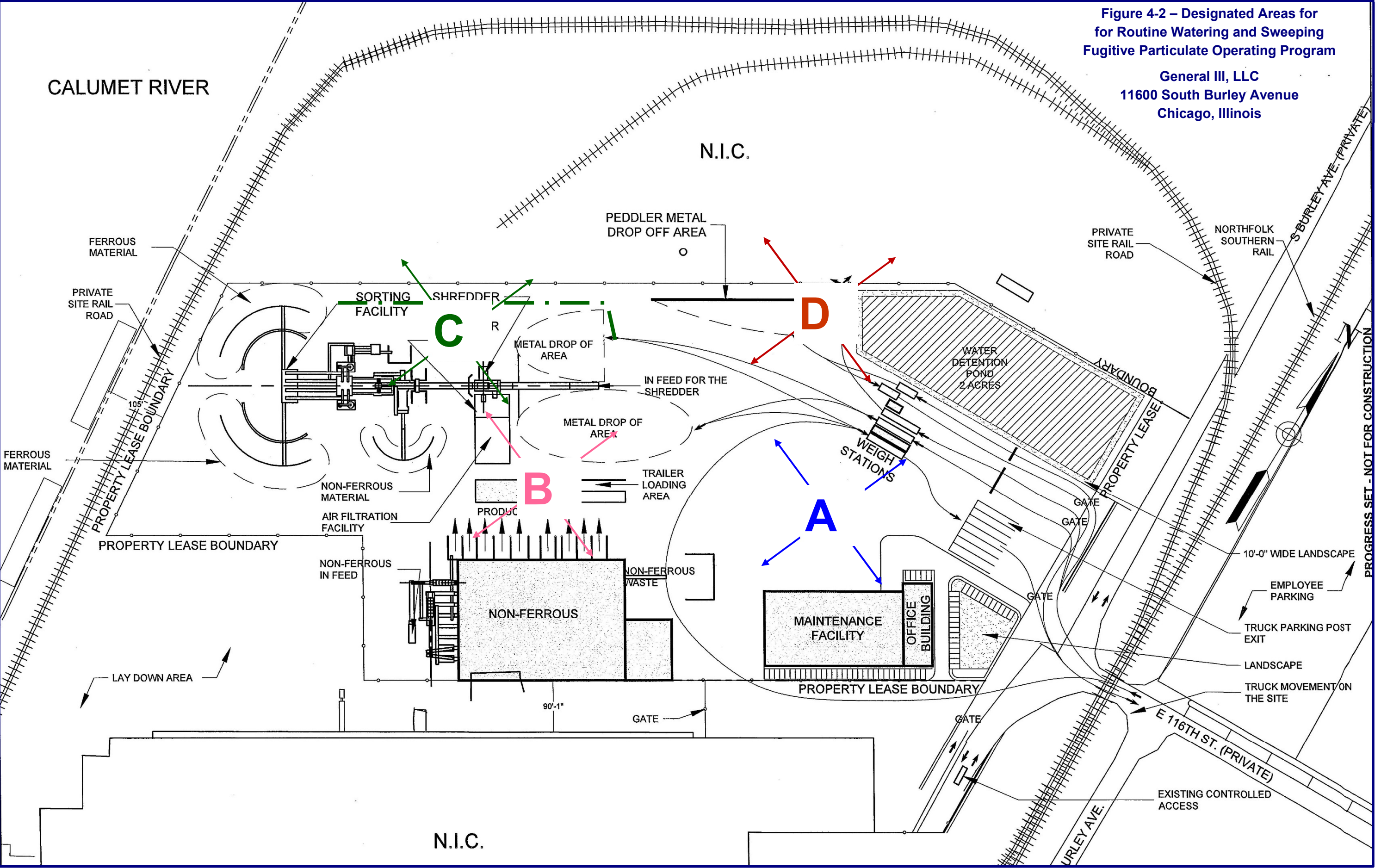


Figure 4-2 – Designated Areas for
for Routine Watering and Sweeping
Fugitive Particulate Operating Program

General III, LLC
11600 South Burley Avenue
Chicago, Illinois



Layman, Robb

From: Jones, Eric E.
Sent: Thursday, June 25, 2020 4:36 PM
To: Layman, Robb; Armitage, Julie
Subject: FW: Clean copy of GIII Fugitive Dust Operating Plan
Attachments: 2020-06-25 FINAL GIII Fugitive Dust Operating Plan.pdf

From: John Pinion <jpinion@rka-inc.com>
Sent: Thursday, June 25, 2020 3:43 PM
To: Jones, Eric E. <Eric.E.Jones@Illinois.gov>
Cc: GII, LLC; Labkon, Adam (adamlabkon@general-iron.com) <AdamLabkon@General-Iron.com>; GII, LLC; Kallas, Jim (jimkallas@general-iron.com) <jimkallas@general-iron.com>; Reserve Management Group; Tolin, Hal (haltolin@reserve-group.com) <haltolin@reserve-group.com>; Steve Joseph <SteveJoseph@reserve-group.com>; Zwick, Ann M. <azwick@freeborn.com>
Subject: [External] Clean copy of GIII Fugitive Dust Operating Plan



Eric,

I was informed that I did not include the entire document in the Adobe file I sent. I have attached another Adobe file with the entire plan.

This time with attachment.

If you have any questions, please do not hesitate to contact me.

Regards,
John Pinion

RK & Associates, Inc.
2 South 631 Route 59, Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000 x 208
Fax: 630-393-9111
Cell: 630-917-1455
E-mail: jpinion@rka-inc.com

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June 25, 2020

R17421-7.2

Mr. Eric Jones
Illinois Environmental Protection Agency - Bureau of Air
1021 North Grand Avenue East
Springfield, IL 62702

**Revised Fugitive Particulate Operating Program for a
Scrap Metal Recycling Facility
General III, LLC – 11600 South Burley - Chicago, Illinois**

Dear Mr. Jones:

Please find attached a revised copy of the Fugitive Particulate Operating Program for the proposed General III, LLC (GIII) Scrap Metal Recycling Facility located in Cook County at 11600 South Burley Avenue in Chicago, Illinois. This revised copy of the Program addresses comments received from IEPA on June 19 and 24, 2020.

An electronic copy of the above referenced document has also been forwarded to you and Ms. Julie Armitage.

If you have any questions or need any additional information, please don't hesitate to contact us at 630-393-9000.

Yours very truly,
RK & Associates

A handwritten signature in dark ink, appearing to read "John G. Pinion", is written over a light blue horizontal line.

John G. Pinion
Associate Engineer

cc: Mr. Jim Kallas – General III, LLC – Chicago, Illinois (via e-mail)
Ms. Julie Armitage – IEPA Bureau of Air – Springfield, Illinois (via-e-mail)

**Fugitive Particulate Operating Program
General III, LLC –
11600 S Burley Avenue - Chicago, Illinois
June 25, 2020**

R17421-7.2

***Prepared for:*
General III, LLC
1909 North Clifton Avenue
Chicago, Illinois 60614
Attn: Mr. Jim Kallas**

***Prepared by:*
John G. Pinion
Principal Engineer
RK & Associates, Inc.**



**2 South 631 Route 59
Suite B
Warrenville, Illinois 60555
Phone: 630-393-9000
Fax: 630-393-9111**

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Facility Location and Contact Information	1
1.2 Regulatory Requirements	2
1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301	2
1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program	2
1.3 Definition of Visible Emissions	2
1.4 Industrial Campus Boundaries	2
2.0 FACILITY SITE MAP	3
3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR MITIGATION OF VISIBLE EMISSIONS	5
3.1 Raw Material Unloading/Handling	7
3.2 Material Transfer Points	7
3.3 Intermediate and Product Stockpiles	8
3.4 Fluff Storage and Loadout	8
3.5 Truck Loadout	9
3.6 Paved Areas	10
3.7 Unpaved Areas	11
3.8 Employee Parking Area	12
3.9 Vehicle Tarping	13
3.10 Barge Loading	13
3.11 Rail Car Loading	14
3.12 Industrial Campus Boundary Line Observations for Visible Emissions	14
4.0 RECORDKEEPING	17
4.1 Meteorological Data	17
4.2 Visible Emissions Observation and Control Form	17
4.3 Water Truck Log	17
4.4 Sweeper Log	18
4.5 Dust Boss System Water Application	18
4.6 Visible Emissions Mitigation Equipment Replacement and Maintenance	18

4.7 Monthly Inspections of Visible Emissions Mitigation Equipment	19
5.0 VOLUNTARY QUARTERLY REPORTING	21
6.0 PROGRAM AMENDMENT	23

TABLES

Table 3-1 Summary of Facility Operations and Best Management Practices for	6
Mitigation of Visible Emissions	

FIGURES

Figure 2-1 Facility Location Map	
Figure 2-2 Facility Layout Map	
Figure 2-3 Facility Layout Drawing	
Figure 3-1 Covered Conveyors - Ferrous Material Processing System	
Figure 3-2 Covered Conveyors – Non-Ferrous Material Processing System	
Figure 4-1 Anticipated Dust Boss Locations	
Figure 4-2 Designated Areas for Routine Watering and Sweeping	



1.0 INTRODUCTION

This Fugitive Particulate Operating Program (Program) has been prepared for the General III, LLC (GIII) scrap metal recycling facility as a condition of Illinois Environmental Protection Agency (IEPA) Construction Permit No. 19090021.

GIII is a recycling facility (Facility) located in an existing established industrial district. GIII is configured to process 1,000,000 tons per year of shreddable recyclables in various forms to produce uniform grades of ferrous and non-ferrous metals. Proposed scrap handling and processing activities include raw material receiving, sorting, shredding, metal separation, recovery of ferrous and non-ferrous metals, and shipment of finished products to customers.

The objective of this Program is to identify, monitor, and treat (as may be necessary) sources of Visible Emissions (defined in Section 1.3). GIII is implementing this Program to meet applicable regulatory standards.

1.1 Facility Location and Contact Information

<u>Business Name:</u>	General III, LLC
<u>Source Location:</u>	11600 South Burley – Chicago, Illinois 60617 Hyde Park Township, Cook County Illinois
<u>Latitude/Longitude</u>	41.685201° N / -87.545847° W – Approximate Location of Front Gate
<u>Office/Mailing Address:</u>	1909 N. Clifton Avenue – Chicago, Illinois 60614
<u>Authorized Representative Responsible for this Program:</u>	Mr. Jim Kallas – Environmental Manager 847-508-9170 – jimkallas@general-iron.com
<u>IEPA Site ID No.:</u>	031600SFX
<u>SIC Code:</u>	5093 – Scrap and Waste Materials
<u>NAICS Code:</u>	423930 – Recyclable Material Merchant Wholesalers

1.2 Regulatory Requirements

1.2.1 General Limitation for Fugitive Particulate Matter – 35 IAC 212.301

GIII is subject to the general limitation for fugitive particulate matter identified in 35 IAC 212.301, which requires that:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

1.2.2 Requirement to Prepare and Implement a Fugitive Particulate Operating Program

Pursuant to 35 IAC 212.302, a Fugitive Particulate Operating Program is required for any facility with operations belonging to specified groups of Standard Industrial Classification (SIC) Codes **and** that are located within a specified area. GIII is located in Cook County, which is a specified area under 35 IAC 212.302; however, GIII's SIC Code (5093 Scrap and Waste Materials) is **not** among the specified SIC codes. Therefore, GIII is not subject to a requirement to have a Fugitive Particulate Operating Program.

Although not required by regulations, this Fugitive Particulate Operating Program establishes the best management practices that will be used to minimize potential Visible Emissions and ensure compliance with 35 IAC 212.301.

1.3 Definition of Visible Emissions

For the purposes of this Program, "Visible Emissions" means the existence of visible fugitive particulate matter emissions that threaten to cross the Industrial Campus Boundary.

Visible Emissions do not include steam (water vapor), engine combustion exhaust, and particulate matter emitted from permitted exhaust stacks with or without a pollution control device because each permitted exhaust point has a separate opacity limit and particulate mass emission limit included in the facility construction/operation permit.

1.4 Industrial Campus Boundaries

For the purposes of this Program, the "property line" as referenced in 35 IAC 212.301, is the boundary of the existing Industrial Campus located at 11600 South Burley Avenue in Chicago, Illinois identified in Figure 2-2 (Industrial Campus Boundary).



2.0 FACILITY SITE MAP

The location of GIII is shown on Figures 2-1 and 2-2. GIII operates on approximately 25 acres within the Industrial Campus. Four other affiliated material recycling businesses are located within the Industrial Campus. Combined emissions from these other businesses qualify for, and are currently registered under, IEPA's Registration of Smaller Source (ROSS) Program.

The GIII scrap metal recycling facility is shown on Figure 2-3. The Facility Site Map indicates the locations of the Facility boundaries, buildings, location of material handling and processing areas, shredder enclosure, shredder emission control system, stockpiles, truck scales and facility vehicle entrance.

When initially constructed the Facility surface area will be comprised of 62% concrete and asphalt pavement and 8% stormwater retention pond. The remaining area includes ancillary support buildings, green space and unpaved surface consisting compacted asphalt gravel, asphalt grindings or similar materials.

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3.0 FACILITY OPERATIONS AND APPLICATION OF BEST MANAGEMENT PRACTICES FOR MITIGATION OF VISIBLE EMISSIONS

Raw materials are delivered to the facility from a variety of sources including retail, commercial/industrial accounts via trucks or contract haulers and peddlers via peddler vehicles. Peddlers and semi-trucks entering the facility first pass through a truck scale.

Semi-trucks are then directed to a material staging area near the raw material stockpiles. Designated Facility personnel inspect all loads for unauthorized materials in accordance with Facility procedures. In this regard, the facility is subject to a Feed Stock Management Plan requirement in the facility construction permit. After unloading, the semi-trucks and peddler vehicles exit the Facility after passing over the appropriate truck scale.

The shredding process produces ferrous metal and Automobile Shredder Residue (ASR) which contains non-metallic material, non-ferrous metal and a limited amount of ferrous metal. Ferrous metal is processed to remove non-metallic material through a series of material handling steps in the Ferrous Metal Processing system to produce clean ferrous metal.

The ASR is directed to a stockpile for temporary storage prior to processing. ASR is transferred a short distance from the ASR stockpile to the Non-Ferrous Metal Processing system using a rubber-tired loader. ASR is processed by a variety of advanced material handling and separation equipment in the Non-Ferrous Metal Processing system to recover various sizes and grades of non-ferrous metals. Non-metallic material removed by the Non-Ferrous Metal Processing system is directed to a stockpile prior to being loaded into semi-trucks for off-site disposal at an appropriately licensed landfill.

Wherever the information in this Section 3 references application of water for mitigation of Visible Emissions, the following limitations are applicable:

- Application of water will be limited following precipitation events exceeding 0.1 inches.
- Application of water cannot be performed when temperatures are near or below freezing because water application will create unsafe conditions. During these time periods, the facility will lower the posted speed limit to 5 mph.

Table 3-1 summarizes facility operations with the potential to generate Visible Emissions and the Best Management Practices (BMPs) that will be utilized to achieve compliance with 35 IAC 212.301. For the purposes of this Program, compliance with 35 IAC 212.301 is determined at the Industrial Campus Boundary. Detailed descriptions of the BMPs are presented in Section 4.0.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

**Table 3-1 – Summary of Facility Operations and
Best Management Practices for Mitigation of Visible Emissions**

Operation	Best Management Practices					
	Inspections/ Observations	Water Atomizing Dust Bosses	Sweeping/ Watering of Paved Areas	Watering of Unpaved Areas	Additional BMPs	As Described in Section
Raw Material Unloading/Handling	X	X	X		Feed Stock Management Plan	3.1
Material Transfer Points	X	X			Conveyor covers on selected conveyors	3.2
Intermediate and Product Stockpiles	X	X	X		Partial enclosures (side walls) on selected stockpiles	3.3
Fluff Storage and Loadout	X	X	X		Fluff storage bin with steel walls on three sides and equipped with a cover.	3.4
Material Loadout	X		X		Water spray	3.5
Traffic Areas – Paved Areas	X	X	X		Water Truck, Sweeper, and vehicle speed limit of 10 mph	3.6
Traffic Areas – Unpaved Areas	X	X		X	Water Truck, Sweeper, and vehicle speed limit of 10 mph	3.7
Employee Parking	X		X	X	Speed bumps and speed limit signs to limit speed to 10 mph.	3.8
Vehicle Tarping					Trailers of outbound Fluff will be tarped.	3.9
Barge Loading	X				Specially designed chute extending downward from end of conveyor. When using mobile equipment drop distances will be reduced and water will be applied to material prior to loading.	3.10
Rail Car Loading	X				Minimize drop distance. Water material prior to loading.	3.11
Industrial Campus Boundary	X				Identify the source(s) of Visible Emissions and take corrective actions as described herein.	3.12

3.1 Raw Material Unloading/Handling

Raw scrap in bulk trucks (semi-trailers) is dumped on the ground near the shredder infeed conveyor where cranes equipped with magnets or grapples sort through the material and place it on a raw material stockpile or onto the shredder infeed conveyor of the shredder. These or other cranes equipped with magnets or grapples then transfer the material from the stockpiles to the shredder infeed conveyor.

The space available for stockpiling raw material is limited, and therefore, the material is typically processed within several days of its receipt. The raw material stockpiles will not be used for long term storage.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of each raw material unloading and handling area for the presence of Visible Emissions three times per day and record the results on a Visible Emissions Observation and Control (VEOC) form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Dust Boss water atomizers will be positioned to mist the raw material handling area and will be utilized to mitigate Visible Emissions.
- ii. Areas adjacent to raw material handling operations will be included in the watering and sweeping of paved areas described in Section 3.8.

3.2 Material Transfer Points

Material will be primarily transported through the Ferrous and Non-Ferrous Material Processing Systems on a series of belt conveyors. A material transfer point is the point at which material from an upstream conveyor is transferred to a downstream conveyor, the point at which an upstream conveyor feeds a piece of processing equipment, or the point at which a piece of processing equipment discharges material onto a takeaway conveyor. Visible Emissions from a transfer point may occur when the material being transferred has a high concentration of fine material and low moisture content.

Figure 3-1 identifies conveyors in the Ferrous Material Processing System that are equipped with covers, which are limited to the ASR takeaway conveyors and the Fluff take away conveyors.

Figure 3-2 identifies conveyors in the Non-Ferrous Material Processing System that are equipped with covers, which include all outside conveyors except those that convey clean metallic products that do not contain material that is subject to becoming Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of specific areas that include material transfer points for the presence of Visible Emissions three times per day and record the results on a VEOC form. When Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Water will be applied to facility areas with the highest potential for Visible Emissions.

3.3 Intermediate and Product Stockpiles

The space available for stockpiling intermediates and products is limited and, therefore, these materials are typically processed or shipped off site regularly. These stockpiles will not be used for long term storage of materials.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of material stockpiles for the presence of Visible Emissions once per day at each stockpile with the results recorded on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Dust Boss water atomizers will be positioned to mist stockpiles when Visible Emissions are observed.
- i. With the exception of the Raw Material stockpiles, the two Ferrous Metal Stockpiles, and the ASR stockpile, all stockpiles identified in facility emission estimates will have solid partitions on three sides.
- ii. Areas adjacent to stockpiles will be included in the watering and sweeping of paved areas described in Section 3.8.

3.4 Fluff Storage and Loadout

“Fluff” is the term used to refer to the waste product from the Non-Ferrous Material Processing System.

The Fluff Storage Bin has been designed to mitigate Visible Emissions from the bin. The Fluff Storage Bin is enclosed on three sides by steel walls and on the top with a fixed cover.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

One side of the bin is required to be open to allow access for a rubber-tired end loader for material loadout to trucks. The open side of the bin faces west, away from residential areas located east of the facility. A Dust Boss is also located near the west side of the bin to mitigate Visible Emissions.

A rubber-tired end loader is used to transfer fluff from the Fluff Storage Bin to trailers. After the trailers are filled, they are tarped before they leave the facility.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the Fluff Storage Bin for the presence of Visible Emissions three times per day and record the results on a VEOC form. At least one of these observations will be made during Fluff loadout. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. A Dust Boss water atomizer, located near the bin, will be used to mist the west side of the bin to mitigate fugitive dust and the material loadout area if Visible Emissions are observed.
- ii. Areas adjacent to the Fluff Storage Bin will be included in the watering and sweeping of paved areas described in Section 3.8.

3.5 Truck Loadout

Product loadout occurs when stockpiled material is transferred to trucks using a rubber-tired loader, or material handler.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of each loadout area that is active at the time the observations are performed. Each active material loadout area is observed for the presence of Visible Emissions three times per day and results are recorded on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Water will be applied to material and adjacent loadout areas when Visible Emissions are observed.

- ii. Areas adjacent to material loadout activity will be included in the watering and sweeping of paved areas described in Section 3.8.

3.6 Paved Areas

The paved areas with the highest potential for Visible Emissions are the traffic routes used by vehicles delivering raw material or transporting materials from the site.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of paved vehicle traffic routes for the presence of Visible Emissions and record the results on a VEOC form. The most frequently traveled routes will be observed three times per day and less traveled routes and non-traffic paved areas will be observed once per day. Observation locations will be identified prior to facility startup.

B. Visible Emissions Mitigation Measures:

- i. Speed limit signs, limiting vehicle speed to 10 mph, will be posted on vehicle travel routes.
- ii. Water will be applied to the most frequently used paved areas at least once per day, subject to the weather conditions identified above. Water will be applied to less frequently traveled routes at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation). If water is not be applied, the reason will be noted on the VEOC form.

- iii. Sweeping of the most frequently traveled routes will occur at least once per day when the facility is operating subject to the weather conditions identified above. Sweeping of less frequently traveled routes will occur at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation). If sweeping is not performed, the reason will be noted on the VEOC form.

Facility Operations and Application of Best Management Practices for Fugitive Particulate Control

- iv. Rumble Strips will be installed at the entrance to the outgoing scale to remove loose material from exterior of vehicle trailers and vehicle tires.

The Rumble Strip area will be routinely inspected, and accumulated material removed on a regular basis to ensure effective operation.

3.7 Unpaved Areas

Limited areas within the Facility that are not paved with concrete or asphalt are covered with compacted asphalt grindings or similar material. Visible Emissions from unpaved areas are associated with vehicle use.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of unpaved areas for the presence of Visible Emissions and record the results on a VEOC form. The most frequently used areas will be observed three times per day and less frequently used areas will be observed once per day. Observation locations will be identified prior to facility startup.

B. Visible Emissions Mitigation Measures:

- i. Speed limit signs, limiting vehicle speed to 10 mph will be posted on vehicle travel routes.
- ii. Water will be applied to the most frequently used unpaved areas at least once per day subject to the weather conditions identified above. Water will be applied to the less frequently used areas at a frequency required to mitigate Visible Emissions, subject to weather conditions identified herein. Additional applications may be made in response to Employee Observations.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation). If water is not be applied, the reason will be noted on the VEOC form.

- iii. If Visible Emissions are observed from unpaved areas during weather conditions that prohibit water application, alternative control measures will be evaluated. Evaluation and potential application of alternative mitigation measures will be based on operating experience and routine observations. Alternative mitigations measures may include but are not limited to minimizing activity in unpaved areas, application of surfactant prior to winter conditions, or placement of additional asphalt grindings or similar material.

3.8 Employee Parking Area

There is administrative parking adjacent to the administration building inside of the Facility. The administrative parking area will be maintained as described in Section 3.8.

There is also an employee parking lot located east of the railroad tracks that parallels the east Industrial Campus Boundary and just north of vacated 116th Street, which is a nonpublic street west of Avenue O used by the Facility under an existing easement agreement.

Because employee vehicles will not routinely enter the facility, material track-in to the parking area will be negligible.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of the employee parking lot for the presence of Visible Emissions and record the results on a VEOC form. The parking area will be observed once per day when employees are entering or leaving the area. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. The employee parking area will be equipped with speed bumps and speed limit signs will be posted to limit vehicle speeds to 10 mph.
- ii. When Visible Emissions are observed, water will be applied to those areas.

Operation of the water truck will be documented in a water truck log that will identify the area(s) where water is applied, the approximate amount of water applied, the time of application, the name of the person operating the water truck, and the reason for application (i.e., routine daily application or in response to an Employee Observation).

- iii. Sweeping of the paved areas of the employee parking lot will be performed once per month subject to the weather conditions identified above.

Operation of the sweeper will be documented in a sweeper log that will identify the area(s) swept, the date/time sweeping was performed, the name of the person operating the sweeper, and the reason for sweeping (i.e., routine daily sweeping or in response to an Employee Observation).

3.9 Vehicle Tarping

Tarps are utilized on outgoing Fluff trailers because this material has the potential to become airborne during transport. Fluff trailers are tarped before leaving the Facility.

Based on operating experience, Fluff is the only material, incoming or outgoing, that has the potential to become airborne during transportation. It is not practical to tarp trailers of inbound scrap metal, outbound trailers of shredded metal or other products because these materials do not generate airborne material during transport and, if covered, tarps would be cut or torn by pieces of scrap and further damaged during transport. The Illinois Department of Transportation (IDOT) governs the transport of material on roadways.

Outbound rail cars and barges filled with shredded steel and other products are also not tarped because these materials do not generate airborne material during transport. Outbound trucks, rail cars and barges are all constructed with solid floors and side walls but have open tops to facilitate loading and unloading.

A. Inspections/Observations:

- i. Outbound rail cars and trucks leaving the site, including Fluff trailers, are visually inspected by scale operators.

These inspections are part of the normal responsibilities of the scale operators and are not recorded or otherwise documented.

B. Visible Emissions Mitigation Measures:

- i. Fluff trailers are tarped before leaving the Facility.

3.10 Barge Loading

Barges will be loaded by a conveyor equipped with a specially designed chute. Barges could also be loaded by mobile equipment, in which case, water will be applied to the material to mitigate potential for Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of Barge Loading for the presence of Visible Emissions at least once during the loading of each barge and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. When loading barges with a conveyor, the conveyor will be equipped with a specially designed chute extending downward or a water spray to mitigate Visible Emissions.
- ii. When loading barges with mobile equipment, drop distances will be minimized and water will be applied to the material to mitigate Visible Emissions.
- iii. Areas adjacent to Barge Loading will be included in the watering and/or sweeping of paved and/or unpaved areas described in Sections 3.8 and 3.9.

3.11 Rail Car Loading

Rail cars are loaded by material handlers that include end loaders, grapples, and magnets. Grapple and magnet operators are trained to limit the drop distance of material into the rail cars to minimize the potential for Visible Emissions.

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations of Rail Car Loading for the presence of Visible Emissions at least once each day during the loading of rail cars and record the results on a VEOC form. If Visible Emissions are identified, observers will notify the Facility Manager who will be responsible for deployment of Visible Emissions mitigation measures.

B. Visible Emissions Mitigation Measures:

- i. Material drop distances will be minimized by grapple and magnet operators to minimize the potential for Visible Emissions.
- ii. When loading rail cars with mobile equipment, drop distances will be minimized and water will be applied to the material to mitigate Visible Emissions.
- iii. Areas adjacent to Rail Car Loading will be included in the watering and/or sweeping of paved and/or unpaved areas described in Sections 3.8 and 3.9.

3.12 Industrial Campus Boundary Line Observations for Visible Emissions

Observations will be performed at the North, South, East, and West Industrial Campus boundaries.

**Facility Operations and Application of
Best Management Practices for Fugitive Particulate Control**

A. Inspections/Observations:

- i. Trained personnel will conduct visual observations at least once per day of the North, South, East and West boundaries of the Industrial Campus for the presence of Visible Emissions and record the results on a VEOC form.

B. Visible Emissions Mitigation Measures

- i. If Visible Emissions are noted crossing the Industrial Campus boundary, facility personnel will investigate potential sources of the observed Visible Emissions and take corrective action to mitigate the observed Visible Emissions.

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4.0 RECORDKEEPING

Records will be maintained as required by this Program and the permit.

4.1 Meteorological Data

An onsite meteorological data station (met station) will be installed and operated to record hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts. The met station will be centrally located at a minimum height pursuant to applicable USEPA protocols and guidance. Met data will be downloaded and stored electronically at the Facility.

Meteorological data will be recorded and maintained electronically on site. Data will include hourly temperature, wind speed, wind direction, barometric pressure, relative humidity, and precipitation amounts.

4.2 Visible Emissions Observation and Control Form

A Visible Emissions Observation and Control (VEOC) Form will be used to record the results of Visible Emissions observations described in Section 3 and the corresponding mitigation measures applied.

The VEOC form will include the following information:

- Date/Time
- Name of Observer
- Area(s) Observed
 - Time of Observation
 - Visible Emissions Observed – Yes/No
 - > Approximate migration distance from source (ft)
 - Mitigation Measures Applied – Yes/No
 - > If Yes, identify Mitigation Measures Implemented

4.3 Water Truck Log

The water truck will make routine rounds in the areas identified in Figure 4-2. A log of water truck use will be generated by the operator to record water applications to paved and unpaved areas. This log will include:

- Date/Time
- Reason No Watering Was Performed (if applicable)
- Name of Water Truck Operator
- Reason for Water Application
 - Scheduled, or

- Corrective Action in response to a Visible Emissions Observation
- Area(s) of Water Application
 - Time of Application
 - Approximate Amount of Water Applied (gallons)

4.4 Sweeper Log

A log of sweeper operation will be generated by the operator to record sweeping events. This log will include:

- Date/Time
- Reason No Sweeping Was Performed (if applicable)
- Name of Sweeper Operator
- Reason for Sweeping
 - Scheduled, or
 - Corrective Action in response to a Visible Emissions Observation
- Area(s) Swept
 - Time of Sweeping

4.5 Dust Boss Water Application

A water meter will be used to document the daily volume of water applied by the Dust Boss system. Figure 4-1 identifies the anticipated location of Dust Bosses.

4.6 Visible Emissions Mitigation Equipment Replacement and Maintenance

Records of replacement or maintenance performed on Visible Emissions mitigation equipment will be performed in accordance with manufacturers recommendations and records will be maintained by the Facility personnel. This information will identify:

- Maintenance performed on the water truck
- Maintenance performed on the sweeper
- Maintenance of Dust Bosses
- Replacement of Dust Bosses or other equipment

4.7 Monthly Inspections of Visible Emissions Mitigation Equipment

Facility personnel will perform monthly visual inspections of the following Visible Emissions mitigation equipment to ensure it is in good operating condition and functioning as intended.

Monthly visual inspections of the following equipment will be performed to ensure these are in good condition.

- Shredder Enclosure
- Ferrous Material Processing System Conveyor Covers
- Non-Ferrous Material Processing System Conveyor Covers
- Fluff Storage Bin
- Barge Loading Chute
- Water application systems

Results of these inspections will be recorded on a form that will include the following information:

- Equipment Being Inspected
- Date/Time of Inspection
- Person Conducting Inspection
- Check List of Equipment Features and Condition (acceptable / unacceptable)
 - Description of unacceptable conditions
- Date of corrective action (if required).
 - Description of Correction Action (if required)

The above referenced checklists will be developed after construction is complete.

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5.0 VOLUNTARY QUARTERLY REPORTING

Although not required, the following information will be reported to the IEPA on a quarterly basis. Quarterly reports will be submitted by the first day of the second month following the end of each calendar quarter.

January through March	Submitted May 1 st
April through June	Submitted by August 1 st
July through September	Submitted by November 1 st
October through December	Submitted by February 1 st

Each quarterly report will include the following information:

- Industrial Campus boundary line observation records
- Water Truck Log
- Sweeper Log
- Dust Boss system water application (gal/day)
- Summary of equipment replacement and maintenance of Visible Emissions mitigation equipment.

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6.0 PROGRAM AMENDMENT

This Fugitive Particulate Operating Program shall be amended from time to time so that the operating program is current. Program amendments will be submitted to the Illinois EPA within thirty (30) days of such amendment. Any future revision to this Program made by GIII is automatically incorporated by reference as an enforceable condition of the Facility construction/operation permit, unless it is expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies GIII of a deficiency with any revision to the Program, GIII will revise and re-submit the Fugitive Particulate Operating Program within thirty (30) days of receipt of notification to address the deficiency.

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Fugitive Particulate Operating Program

**General III, LLC
11600 South Burley
Chicago, Illinois 60614**

FIGURES

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Figure 2-3 GIII Facility Layout
Fugitive Dust Operating Program
General III, LLC
11600 South Burley Avenue
Chicago, Illinois

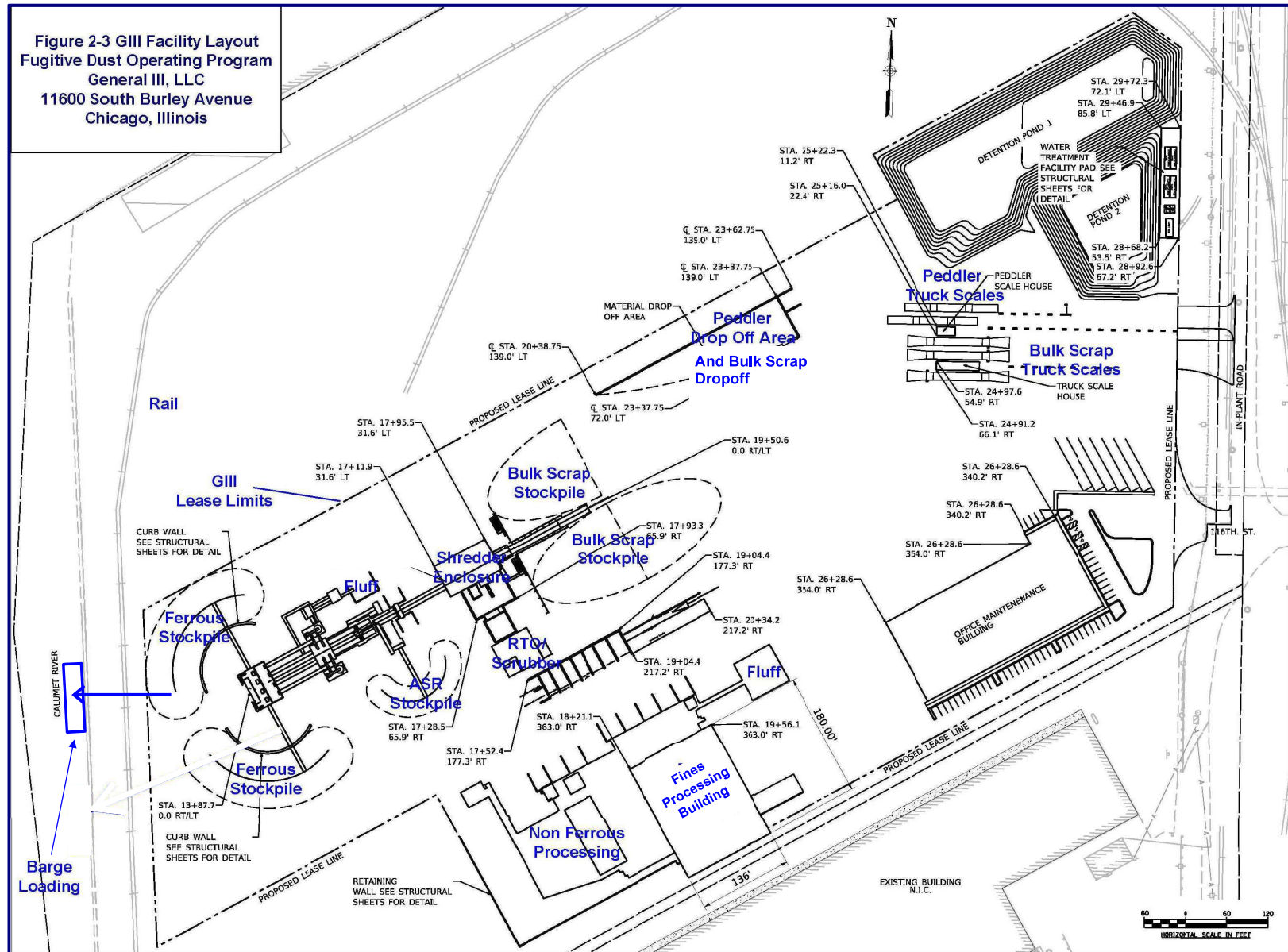
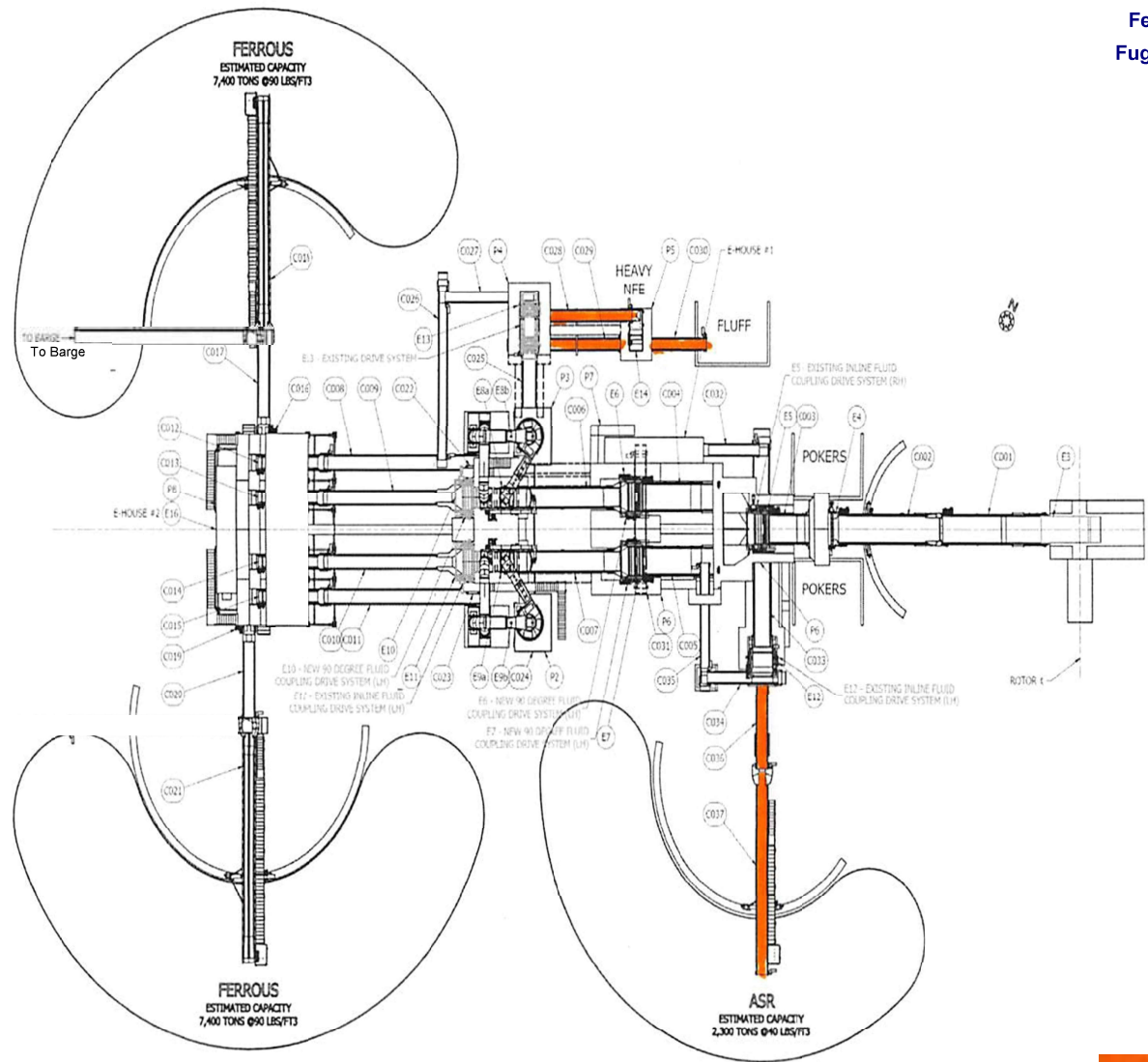


Figure 3-1 – Covered Conveyors
 Ferrous Material Processing System
 Fugitive Particulate Operating Program

General III, LLC
 11600 South Burley Avenue
 Chicago, Illinois



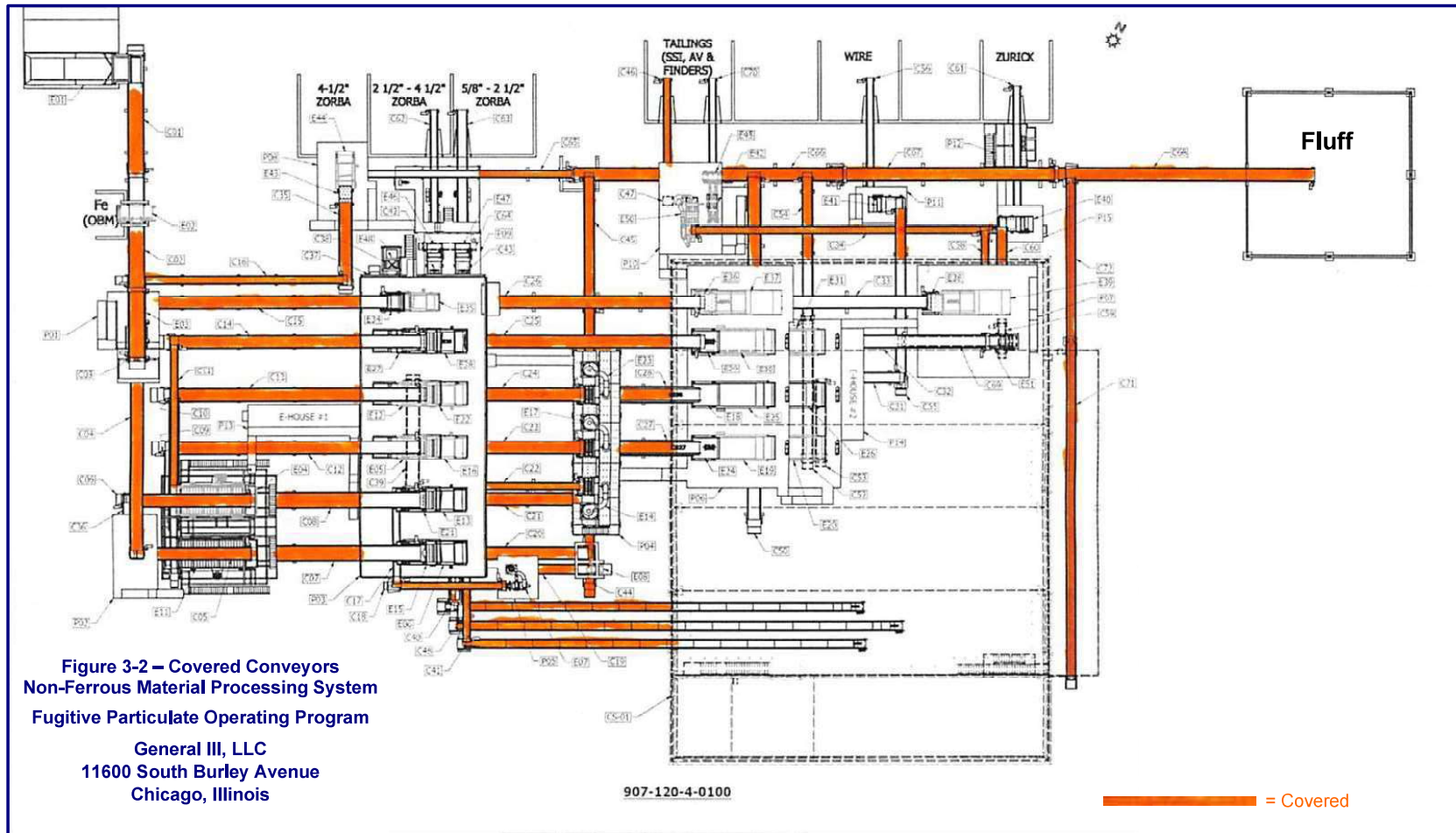


Figure 4.1 Anticipated Dust Boss Locations
Fugitive Dust Operating Program
General III, LLC
11600 South Burley Avenue
Chicago, Illinois

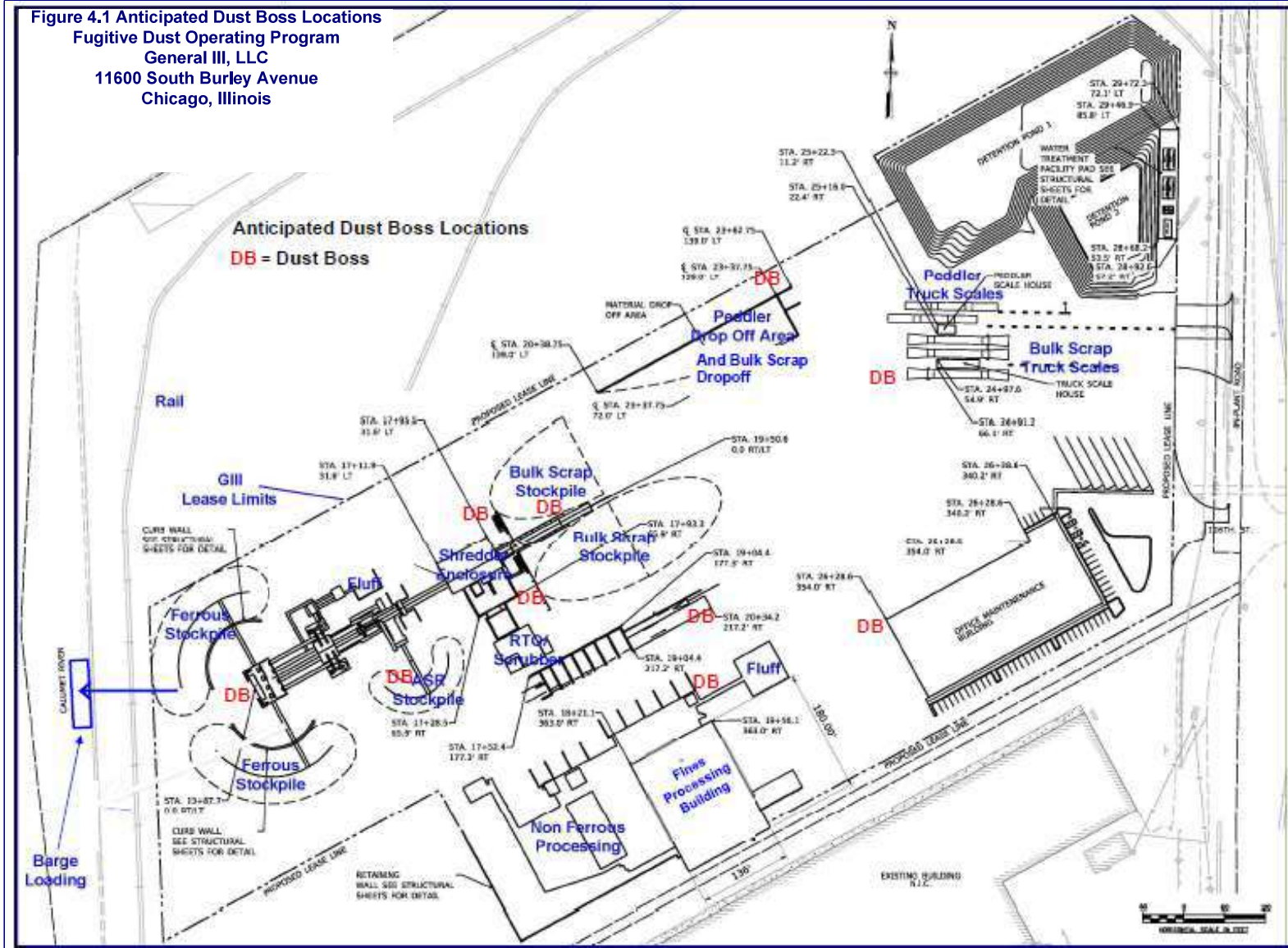


Figure 4-2 – Designated Areas for
for Routine Watering and Sweeping
Fugitive Particulate Operating Program

General III, LLC
11600 South Burley Avenue
Chicago, Illinois

