MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

October 30, 2023

PERMIT TO INSTALL
125-23

ISSUED TO
Superior Materials, LLC – Plant 11

LOCATED AT
7811 West Jefferson Avenue
Detroit, Michigan 48209

IN THE COUNTY OF
Wayne

STATE REGISTRATION NUMBER
P1395

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **October 12, 2023**	
DATE PERMIT TO INSTALL APPROVED: **October 30, 2023**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H_2S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO_x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO_2	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**

6. The permittee shall not operate this equipment in a manner that causes or permits the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

FGFACILITY CONDITIONS

DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGFACILITY unless the fugitive dust control plan specified in Appendix A, or an alternate approvable plan submitted to the AQD District Supervisor, for all plant roadways, the plant yard, all material storage piles, and all material handling operations has been implemented and is maintained. **(R 336.1371, R 336.1372, Act 451 324.5524)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

APPENDIX A

Operating Plan for Fugitive Dust Control

Superior Materials, LLC. – Plant 11

7811 West Jefferson Avenue

Detroit, Michigan 48209

1 Introduction

This Operating Plan for Fugitive Dust Control has been developed and implemented for Superior Materials, LLC Onsite Plant 11 located at 7811 West Jefferson Avenue, Detroit, MI 48209 (Facility/Site). The purpose of this plan is to describe the tools and methods used to control fugitive dust emissions in accordance with the requirements of the Natural Resources and Environmental Protection Act 451 of 1994. Specifically, the contents of this Operating Plan demonstrate Facility's compliance with Section 5524 of the Act (324.5524 – Fugitive Dust Sources or Emissions).

2 Approved State Operating Plan [Sec. 324.5524(4)]

Onsite Plant 11 has developed and implemented a state operating program pursuant to Section 5524 of the Natural Resources and Environmental Protection Act, MCL 324.5524, and Michigan Air Quality administrative rules R336.1371 and 336.1372. We have submitted a Permit-to-Install (PTI) application to Michigan Department of Environment, Great Lakes, and Energy (EGLE) for approval of the operating program. A copy of the PTI will be maintained onsite.

3 Facility Map [Sec. 324.5524(5)(c)]

The Onsite Plant 11 is bordered by Zug Island Rd and the River Rouge to the South, Jefferson Avenue and a neighborhood to the north, and industrial properties to the east and west. The Facility property, and all adjacent parcels, are zoned M4 – Intensive Industrial. **Figure 1** shows the general Site location and its surroundings, including roadway and transportation corridors within 0.25-mile of the Facility used to transport materials to/from the property.

The Facility comprises one mix batch concrete plant, an office trailer, a storage building, a cement and slag storage silo, an auxiliary silo for cement with a pig beside it, and construction aggregate material stockpiles. The property is unpaved, as identified by **Figure 2. Figure** 2 depicts the general Facility layout, as well as the following information:

- Internal roadways
- Buildings
- On site utilities
- Floor drains, storm drains, and storm water outfalls [Note: there are no storm drains or outfalls onsite]
- Potential fugitive dust emission points including the location of construction aggregate storage piles

4 Description of Facility Operations [Sec. 324.5524(5)(i)]

The primary industrial activity at this Site is the production and distribution of pre-mix batch concrete. Aggregates are delivered to the Site by truck, and stockpiled utilizing conveyors and front-end loaders. Front-end loaders are also used to load construction aggregates into the concrete plant feed hopper. Cement and slag cement are delivered to the Site by tank truck and pneumatically conveyed to storage silos. Material in silos located at the concrete plant is used to manufacture concrete. The Onsite Plant 11 typically closes in the winter months but with warmer weather can open for operation. Onsite Plant 11 typically operates 6 days/week in the summer months.

5 Fugitive Dust Control Measures [Sec. 324.5524(2), (3), (4) & (5)]

Fugitive dust may be generated from the construction aggregate storage and handling activities at the Facility, and from materials transferred to and from storage silos and the concrete plant. Operational and structural controls are used at the Onsite Plant to minimize the amount of fugitive dust generated on site and to prevent fugitive dust emissions exceeding 5% opacity from Facility roads, lots, and storage piles, or exceeding 20% opacity from other sources in accordance with MCL 324.5524(2). Specific fugitive dust control measures are discussed in the following sections.

5.1 Stockpiling and Material Transfers

A potential for fugitive dust exists during stockpiling of construction aggregates from trucks and during unloading and transferring of construction aggregates. To minimize dust, the drop height during stockpiling and loading is maintained at the minimum height practicable. Water sprays are also used as needed during non-freezing conditions to control fugitive dust emissions from stockpiles. Cement and slag cement are transported to and from the site in enclosed tanker trucks, and pneumatically conveyed to and from enclosed silos.

5.2 Material Processing and Conveying
Construction aggregates delivered to the Onsite Plant by truck are unloaded directly into stockpiles or aggregate storage bins. Material transfers by conveyor may occur anywhere within the Site boundary (see Figure 2) and additional portable conveyors may be used. When materials are loaded or unloaded by conveyor, transfer points and drop heights are minimized to the maximum extent practicable to control fugitive dust emissions. The concrete plant is covered to prevent fugitive dust emissions from material processing during concrete batching.

5.3 Traffic Management
Equipment and truck speeds on-site are normally restricted to 5 to 10 MPH.

5.4 Cleaning and Sweeping
The Facility maintains onsite roadways to minimize aggregate material accumulation on these surfaces. Jefferson Avenue adjacent to the Facility is cleaned by a wet sweeper truck at least twice a week, weather permitting. Records of cleaning and sweeping activities are maintained as described in Section 6 of this Operating Plan. Unpaved roads and parking areas are treated with a dust suppressant as described in Section 5.5 of this Operating Plan.

5.5 Dust Suppression
Calcium chloride or another acceptable chemical dust suppressant or water may be applied to unpaved portions of the Onsite Plant 11 at the owner/operator’s discretion to minimize fugitive dust generated from equipment and vehicles travelling on the facility property. No waste or recycled oils are used for fugitive dust control at the Facility. The Facility maintains records of dust suppressant applications as described in Section 6 of this Operating Plan.

5.6 Employee Training
Facility employees receive annual environmental training covering the topics of storm water management, spill response and reporting, and fugitive dust control. This training includes discussion of the use and maintenance of the control measures discussed in this Operation Plan.

5.7 Routine Inspections
During operating days, a routine inspection of the Site is completed by a Site employee or manager. During these inspections, construction aggregate stockpiles, onsite roads, and Jefferson Avenue are inspected for the presence of fugitive dust and material track out. Corrective actions in the form of additional cleaning and dust suppression activities will be implemented on an as-needed basis when fugitive dust is noted during daily inspections. The inspection form in Appendix B or a similar form will be used to document routine inspections. Records of inspections are maintained as described in Section 6.

5.8 Sedimentation and Erosion Control
Sediment from aggregate handling and storage activities at the Facility is considered a significant material for storm water pollution prevention. The Facility has a berm surrounding it to keep runoff from leaving site and to satisfy stipulations in regard to stormwater management. Storm water pollution prevention is discussed in Section 11 of this Operating Plan.

6 Recordkeeping [Sec. 324.5524(4) & (5)]
The Facility maintains records of road cleaning, dust suppressant application, stockpile watering, Facility inspections for fugitive dust and track out, maintenance and calibration of measuring devices used to determine stockpile heights, employee training, and implementation of high wind controls for a minimum of 3 years (5 years for records required by the EGLE). The inspection form in Appendix B or a similar form will be used to document routine inspections. Work orders/receipts from dust suppressant application and road cleaning/sweeping performed by contracted third parties are also maintained. These records are maintained at the Facility.

7 Setback and Screening Requirements [Sec. 324.5524(5)(i)
The Facility property is zoned M4 - Intensive Industrial, by the City of Detroit. The Onsite Plant is surrounded by other industrial zoned properties. Therefore, no front, rear, or side setbacks or stockpile screening are required.

8 Height Limits [Sec. 324.5524(5)(e) & (i)]

Stockpile heights on site are maintained at less than 50-ft. A Laser Technology, Inc. TruPulse 200 laser rangefinder, or similar device, is used to confirm that the vertical stockpile height of materials is less than 50-ft. The rangefinder is maintained and calibrated in accordance with manufacturer specifications by Superior Materials, LLC.

9 Waterway Protections [Sec. 324.5524(5)(e) & (i)]

Stockpiles at the Facility are located at least 400 ft from the river. The edge of the Facility is roughly 400 ft from the
River Rouge. As discussed in Section 5.8 and identified in Figure 2, the Facility maintains a gravel filter berm and block wall along the property's edge to prevent sediment runoff leaving the site. Silt fencing is utilized in the more compact high traffic areas to prevent collision with berm.

10 High Wind Conditions [Sec. 324.5524(5)(e) & (i)]

The Facility will monitor wind conditions through publicly available weather information and implement controls when high wind conditions exist. High wind conditions are when average wind speeds exceed 20 MPH of two consecutive 5-minute intervals. When high wind conditions occur during Facility operating hours, the following controls will be implemented as appropriate to limit fugitive dust emissions:

- Additional inspections of stockpiles, paved roads and unpaved roads shall be conducted to evaluate the need for additional sweeping and/or water treatment.
- Traffic and material handling and processing operations shall be limited to essential activities.

The Facility maintains records of when high wind controls are implemented as described in Section 6.

11 Runoff Control [Sec. 324.5524(5)(e) & (i)]

The Onsite Plant has a berm around the Facility barrier to maintain stormwater runoff onsite. As no water leaves site, and there are no storm drains on site, there is no water discharge from Onsite Plant 11. To maintain this berm and to keep compliant with no water discharge, the berm has best management practices to prevent pollution of storm water runoff from the Site and maintenance upkeep of the berm itself. Storm water on the Site percolates into unpaved surfaces at the site.

Figure 1:

Superior Materials, LLC
Plant #11 (Onsite Plant)

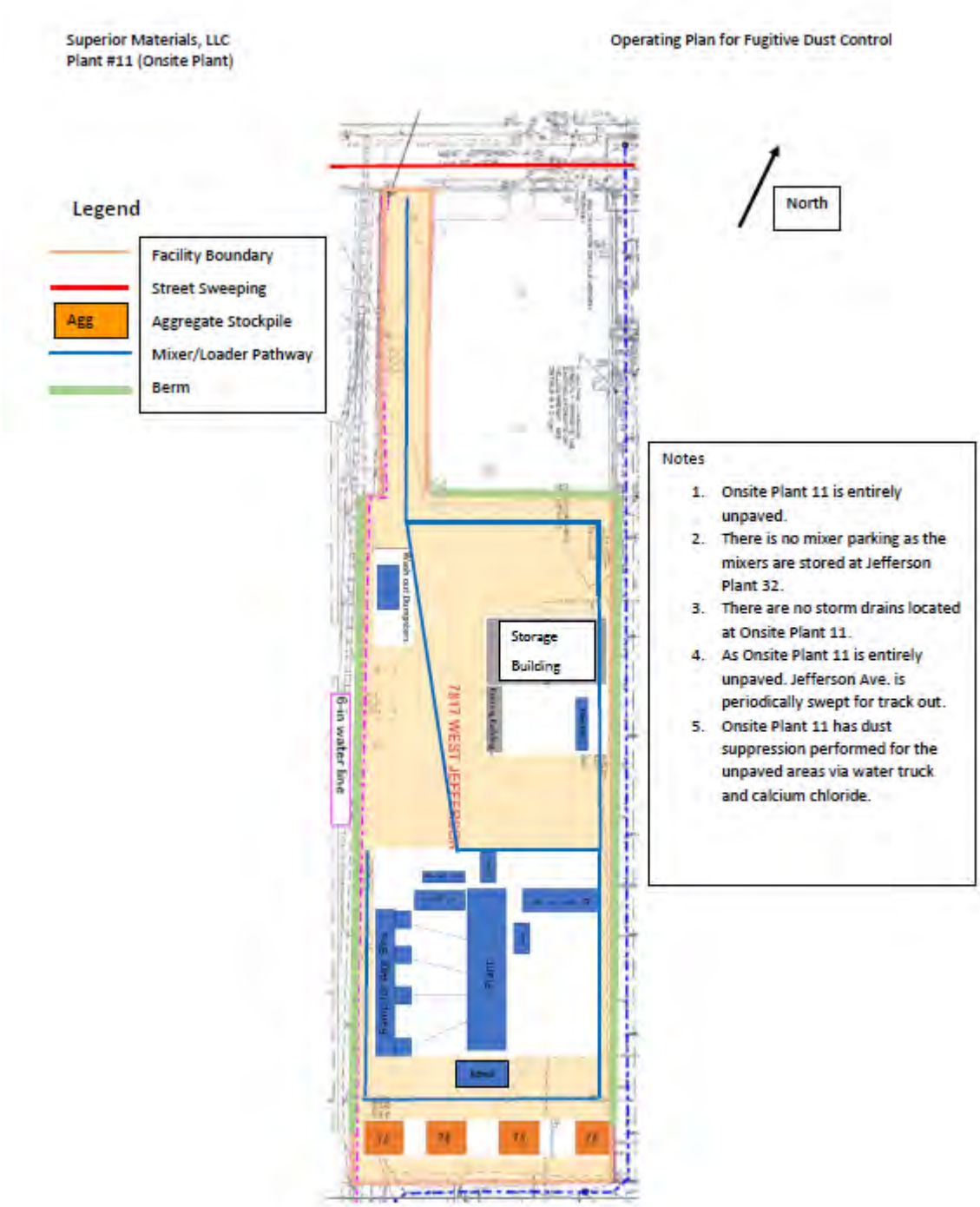
Operating Plan for Fugitive Dust Control

Legend

Facility Boundary

Transportation Road

Figure 2:


Superior Materials, LLC
Plant #11 (Onsite Plant)
Operating Plan for Fugitive Dust Control
Legend
Facility Boundary
Street Sweeping
Agg
Aggregate Stockpile
Mixer/Loader Pathway
Berm
North
Storage Building
7417 WEST JEFFERSON
6-in water line
Notes
1. Onsite Plant 11 is entirely unpaved.
2. There is no mixer parking as the mixers are stored at Jefferson Plant 32.
3. There are no storm drains located at Onsite Plant 11.
4. As Onsite Plant 11 is entirely unpaved. Jefferson Ave. is periodically swept for track out.
5. Onsite Plant 11 has dust suppression performed for the unpaved areas via water truck and calcium chloride.

APPENDIX B
Sample Facility Routine Inspection Form

Superior Materials, LLC. – Plant #11 (Onsite)
Source-Wide FUGITIVE DUST and SEDIMENT TRACK OUT Routine Inspections

Day	Date	Name of Person Performing Inspection	Weather (e.g., Rain, Sunny, Cloudy)	Low Temp (F)	Fugitive Dust Conditions (1)	If abnormal conditions exist, which areas of the site need additional sweeping or dust suppression treatment? (2)	Manager or Contractor Contacted to Apply Control (3)	High Wind Controls Implemented? (4)
Monday					Normal ☐ Abnormal ☐ Facility Did Not Operate ☐		Yes ☐ No ☐	Yes ☐ No ☐
Tuesday					Normal ☐ Abnormal ☐ Facility Did Not Operate ☐		Yes ☐ No ☐	Yes ☐ No ☐
Wednesday					Normal ☐ Abnormal ☐ Facility Did Not Operate ☐		Yes ☐ No ☐	Yes ☐ No ☐
Thursday					Normal ☐ Abnormal ☐ Facility Did Not Operate ☐		Yes ☐ No ☐	Yes ☐ No ☐
Friday					Normal ☐ Abnormal ☐ Facility Did Not Operate ☐		Yes ☐ No ☐	Yes ☐ No ☐
Saturday					Normal ☐ Abnormal ☐ Facility Did Not Operate ☐		Yes ☐ No ☐	Yes ☐ No ☐
Sunday					Normal ☐ Abnormal ☐ Facility Did Not Operate ☐		Yes ☐ No ☐	Yes ☐ No ☐

Notes:

(1) If abnormal fugitive dust conditions are observed, corrective action must be initiated immediately. On days the facility did not operate, no inspection is required, but please check the box for "Facility Did Not Operate".
(2) (2) Areas of the site are stockpiles, unpaved roads, paved roads/lots
(3) Contact the appropriate contractor or your manager to request additional water truck or sweeper support.
(4) Check "Yes" for this field when notified that high wind conditions are present and additional controls are implemented. High Wind Conditions are when average wind speeds exceed 20 MPH of two consecutive 5-minute intervals. When high wind conditions occur during Facility operating hours, the following controls will be implemented as appropriate, at the discretion of Facility management, to limit fugitive dust emissions:
    - Additional inspections of stockpiles, paved roads and unpaved roads shall be conducted to evaluate the need for additional sweeping and/or water treatment.
    - Traffic and material handling and processing operations shall be limited to essential activities.