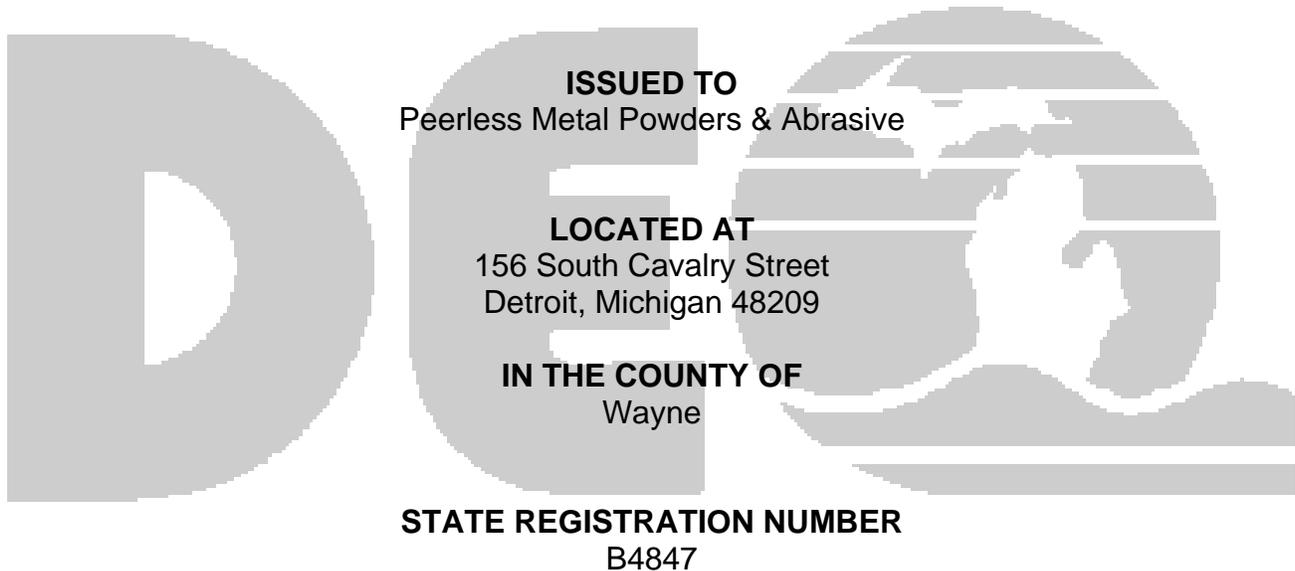


**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

January 3, 2008

**PERMIT TO INSTALL
No. 353-07**



The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. 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: 11/29/2007	
DATE PERMIT TO INSTALL APPROVED: 1/3/2008	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	Btu	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
EPA	Environmental Protection Agency	gr	Grains
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallon of Applied Coating Solids	H ₂ S	Hydrogen Sulfide
GC	General Condition	hp	Horsepower
HAP	Hazardous Air Pollutant	lb	Pound
HVLP	High Volume Low Pressure *	m	Meter
ID	Identification	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	ng	Nanogram
MDEQ	Michigan Department of Environmental Quality	NO _x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM-10	Particulate Matter less than 10 microns diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition Number	SO ₂	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

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 Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, 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 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 AQD District Supervisor shall be notified, in writing, of a change in ownership or operational control of the stationary source or emission unit(s) authorized by this Permit to Install pursuant to R 336.1219. The notification shall include all of the information required by R 336.1219(1)(a) and (b). In addition, a new owner or operator must submit a written statement pursuant to R 336.1219(1)(c), agreeing to and accepting the terms and conditions of this Permit to Install, and shall notify the AQD District Supervisor of any change in the contact person for this Permit to Install. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes 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 nor does it affect any liability for past violations under the Natural Resources and Environmental Protection Act, 1994 PA 451.
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 R 336.1301, 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 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 R 336.1370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	Emission Unit Description	Stack Identification
EUTURNINGSLINE	A steel chips and turnings processing line used to prepare the material before it is transferred to a milling line for further processing. The line consists of a chip loading deck with a feed conveyor; a turnings crusher; a discharge conveyor; a screen; and an oversize return conveyor. This line is not directly vented, via an exhaust stack, to the outside atmosphere.	NA
EUSPMILLLINE	A steel milling line used to manufacture steel powders and abrasive materials. The line consists a dump station a feed bucket elevator; a mill with a controlled feeder; a discharge conveyor with counterflow air cooling; and a discharge bucket elevator and screen. Particulate emissions from the line are controlled by a baghouse dust collector ¹ .	SV-1
EUWSMILLLINE	A steel milling line used to manufacture steel powders and abrasive materials. The line consists a dump station a feed bucket elevator; a mill with a controlled feeder; a discharge conveyor with counterflow air cooling; and a discharge bucket elevator and screen. Particulate emissions from the line are controlled by a baghouse dust collector ¹ .	SV-1
EUEASTMILLLINE	A steel milling line used to manufacture steel powders and abrasive materials. The line consists a dump station a feed bucket elevator; a mill with a controlled feeder; a discharge conveyor with counterflow air cooling; and a discharge bucket elevator and screen. Particulate emissions from the line are controlled by a baghouse dust collector.	SV-2

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.

¹Note, EUSPMILLLINE and EUWSMILLLINE share a common baghouse dust collector.

Flexible Group Identification

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FGSP&WSMILL	EUSPMILLLINE EUWSMILLLINE	SV-1

The following conditions apply to: EUTURNINGSLINE

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.1a	PM	EUTURNINGSLINE	0.004 lbs per 1000 lbs of exhaust gases* ¹	Test Protocol	General Condition No. 13	R 336.1331
1.1b	PM-10	EUTURNINGSLINE	0.75 Pounds Per Hour ²	Test Protocol	General Condition No. 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
<p>* Calculated on a dry gas basis. ¹ The 0.004 lbs per 1000 lbs of exhaust gases limit is a concentration limit which applies individually to each of the four axial general ventilation exhaust fans. ² The 0.75 Pounds Per Hour limit is a mass limit combined for the four axial general ventilation exhaust fans.</p>						

Visible Emission Limits

1.2 Visible emissions from EUTURNINGSLINE, as observed at all building openings, shall not exceed a six-minute average of 5 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, R 336.2802)**

Process / Operational Limits

1.3 The permittee shall not operate any portion of EUTURNINGSLINE unless the program specified in Appendix A has been implemented and is maintained. **(R 336.1371, R 336.1372, R 336.1901)**

Stack / Vent Restrictions

1.4 The exhaust gases from EUTURNINGSLINE shall not be directly discharged, via an exhaust stack, to the ambient air at any time. **(R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

The following conditions apply to: FGSP&WSMILL

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
2.1a	PM	FGSP&WSMILL	0.019 lbs per 1000 lbs of exhaust gases*	Test Protocol	General Condition No. 13	R 336.1331
2.1b	PM-10	FGSP&WSMILL	1.3 Pounds Per Hour	Test Protocol	General Condition No. 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
* Calculated on a dry gas basis.						

Visible Emission Limits

2.2 Visible emissions from FGSP&WSMILL shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, R 336.2802)**

Process / Operational Limits

2.3 The permittee shall not operate any portion of FGSP&WSMILL unless the program specified in Appendix A has been implemented and is maintained. **(R 336.1371, R 336.1372, R 336.1901)**

Equipment

2.4 The permittee shall not operate any portion of FGSP&WSMILL unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2.5 The permittee shall not operate any portion of FGSP&WSMILL unless a gauge, which measures the pressure drop across the baghouse dust collector is installed, maintained and operated in a satisfactory manner. The pressure drop maintained should be within the range prescribed by the manufacture. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

Monitoring

2.6 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the pressure drop across the baghouse dust collector once a calendar day. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

Recordkeeping/Reporting

2.7 The permittee shall keep, in a satisfactory manner, daily records of the pressure drop across the baghouse dust collector. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

Stack / Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
2.8	SV-1	30.0	18.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

The following conditions apply to: EUEASTMILLLINE

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
3.1a	PM	EUEASTMILLLINE	0.019 lbs per 1000 lbs of exhaust gases*	Test Protocol	General Condition No. 13	R 336.1331
3.1b	PM-10	EUEASTMILLLINE	0.35 Pounds Per Hour	Test Protocol	General Condition No. 13	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
* Calculated on a dry gas basis.						

Visible Emission Limits

3.2 Visible emissions from EUEASTMILLLINE shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, R 336.1901, R 336.2802)**

Process / Operational Limits

3.3 The permittee shall not operate any portion of EUEASTMILLLINE unless the program specified in Appendix A has been implemented and is maintained. **(R 336.1371, R 336.1372, R 336.1901)**

Equipment

3.4 The permittee shall not operate any portion of EUEASTMILLLINE unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

3.5 The permittee shall not operate any portion of EUEASTMILLLINE unless a gauge, which measures the pressure drop across the baghouse dust collector is installed, maintained and operated in a satisfactory manner. The pressure drop maintained should be within the range prescribed by the manufacture. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

Monitoring

3.6 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the pressure drop across the baghouse dust collector once a calendar day. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

Recordkeeping/Reporting

3.7 The permittee shall keep, in a satisfactory manner, daily records of the pressure drop across the baghouse dust collector. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. **(R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

Stack / Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
3.8	SV-2	14.0	18.0	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

APPENDIX A

FUGITIVE DUST OPERATING PROGRAM PEERLESS METAL POWDERS & ABRASIVE FORT STREET PLANT

(A) Facility name and address

Peerless Metal Powders & Abrasive
156 S. Cavalry St.
Detroit, MI 48209

(B) Name and address of responsible person:

Paul W. Tousley
President and Chief Executive Officer
Peerless Metal Powders & Abrasive
124 S. Military St.
Detroit, MI 48209

A Facility Map showing approximate storage pile locations, conveyor loading operations, and traffic patterns within the facility is attached as Figure 1.

(C) No Transporting or unloading operations with Pollution Control equipment Exist at the Facility.

(D) Following is a detailed description of the best management practices utilized to achieve compliance with the fugitive dust operating program requirement:

The Peerless Metal Powders & Abrasive, 156 S. Cavalry St. plant crushes, mills & classifies materials for the purpose of manufacturing metal powders and abrasive materials. All metal processing operations occur inside the 156 S. Cavalry building and the building is equipped with general ventilation exhaust equipment. The 156 S. Cavalry plant does, however, include two baghouse dust collectors located outside the building. Consequently, fugitive dust emitted from the 156 S. Cavalry Plant can be categorized as follows:

- (I) Fugitive dust as a result of the receipt and handling of raw materials on the south side of the 156 S. Cavalry Plant.
- (II) Fugitive dust emitted to the outer air through building openings and building exhaust fans and due to air currents that pass through the 156 S. Cavalry Plant.
- (III) Fugitive dust generated due to metal dust that is tracked out of the 156 S. Cavalry Plant by trucks exiting the facility, and
- (IV) Fugitive dust generated due to the storage and handling of particulate matter collected by the baghouse dust collector.

The best management practices utilized to address each of these fugitive dust categories are summarized as follows:

Material Handling

Within 45 days of being notified by AQD, Peerless will develop a plan to address any issues with received materials.

Building Openings

Indoor airborne dust is inherent in the operations of the 156 S. Cavalry Plant.

To mitigate the likelihood of fugitive dust exiting through building openings, Peerless Metal Powders & Abrasive will:

- (I) Minimize the number of building doorways (both man doors and equipment bay doors) that are open at any one time and the duration of such necessary openings to the extent feasible.
- (II) Perform a semi-annual inspection of the building to identify building openings that can be additionally sealed (i.e., building openings that do not need to be periodically opened for human or equipment entry and exit):
- (III) Seal (with plastic sheeting, glass, plywood, or other appropriate materials) any building openings identified as necessary by the semi-annual inspection:
- (IV) Perform a daily (on days when the plant is operating) visible emissions evaluation (2) on the Southwest and Northeast sides of the building to identify periods when fugitive dust is exiting the facility; and,
- (V) If fugitive dust is exiting the facility, other building doors (e.g. truck bay doors and man doors) will be closed as appropriate.

Written records of the various inspections performed, the resulting fugitive dust mitigation activities and the dates of these inspections and mitigation activities will be maintained by Peerless.

Trackout

Trucks can enter and exit the 156 S. Cavalry Plant through the truck bay doors located at the Northeast, Northwest and South sides of the building and through the truck bay. Due to metal dust on the floor of the building, trucks may track metal dust outside the Plant. To mitigate the eventual airborne entrainment of this dust, Peerless will sweep trackout from 156 S. Cavalry Plant a minimum of once per week. It should be noted, however, that this sweeping will not be performed on days when the pavement is consistently wet (e.g., during much of the winter). Peerless will maintain a record of 1) the date(s) that sweeping occurs and 2) weeks when sweeping was deemed unnecessary due to weather.

Baghouse

The baghouse dust collectors have the potential to emit fugitive dust if (i) collected dust is not contained properly or (ii) if the collected dust is not handled properly when transferring collected dust. Peerless will (1) inspect the baghouse dust collection container on a weekly basis to ensure that collected dust remains inside the container, (2) inspect the baghouse fabric filters for torn material on a monthly basis, and (3) maintain records of these inspections. In addition, Peerless will develop a written standard operating procedure (SOP) to ensure that the transfer of collected dust is performed in a manner that minimizes its introduction to the outer air. This document will be made available for MDEQ review upon request.

(E) Waste or Recycled Oils Will Not be Used at the 156 S. Cavalry Plant.

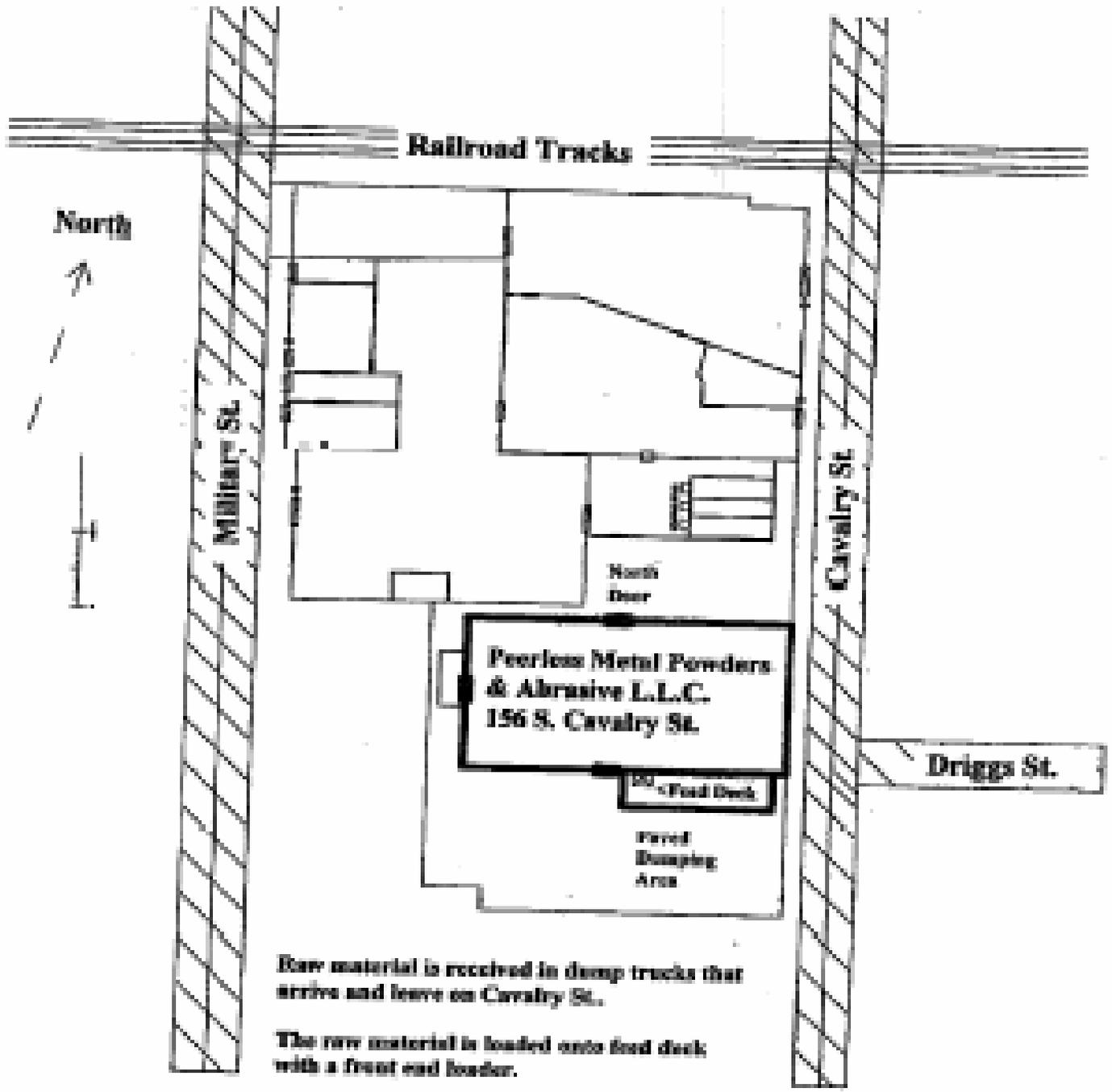
(F) Dust Suppressants Will Not be Used at the Fort Street Plant.

(G) The Frequency of Cleaning Paved Traffic Pattern Roads and Parking Areas is Described in Section (E) of this Document.

(H) Additional Information will be Supplied by Peerless Following its Request by AQD.

1 The fugitive dust operating program was prepared in accordance with and using the format of Chapter 324, Section 5524(5) of the Michigan Compiled Laws.

2 This visible emissions evaluation will not be by 40 CFR 60, Appendix A, Method 9 but will consist of a minimum of three minutes of observation on both sides of the building.



Raw material is received in dump trucks that arrive and leave on Cavalry St.

The raw material is loaded onto feed deck with a front end loader.

The crushed and milled turnings exit in containers to the adjacent building by forklift out the North door.