

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

December 9, 2014

**PERMIT TO INSTALL**  
96-12A

**ISSUED TO**  
United States Steel Corporation

**LOCATED AT**  
1 Quality Drive  
Ecorse, Michigan

**IN THE COUNTY OF**  
Wayne

**STATE REGISTRATION NUMBER**  
A7809

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:

**November 7, 2014**

DATE PERMIT TO INSTALL APPROVED:

**December 9, 2014**

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

## PERMIT TO INSTALL

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**Common Abbreviations / Acronyms**

<b>Common Acronyms</b>		<b>Pollutant / Measurement Abbreviations</b>	
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
CO <sub>2</sub> e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO <sub>x</sub>	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
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	SO <sub>2</sub>	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 48909-7760, 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 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 R 336.1219 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(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.
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 SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUFIXEDSCREEN	800 ton per hour stationary screening equipment with an electric powered engine used for the screening of iron ore pellets. The screening equipment includes a dump hopper and belt feeder, a feed hopper; feed conveyor system; a screen; a system of conveyors for screened pellet delivery to the B2 Conveyor, Ore Jenny, and/or storage pile via stacker; and a conveyor system to a fines collection bin. Control equipment includes a screening enclosure (full boot) that covers the screen area and screen transfer points, and partial enclosures on conveyor transfer points.	2015	FGSCREENING
EUPORTABLE1	350 ton per hour portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors. The engine that powers the portable unit is a 0.959 MMBtu/hr diesel fired engine. The feed conveyors and screen have partial enclosures that mitigate the particulate emissions.	December 2012	FGPORTABLE FGSCREENING
EUPORTABLE2	350 ton per hour portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors. The engine that powers the portable unit is a 0.959 MMBtu/hr diesel fired engine. The feed conveyors and screen have partial enclosures that mitigate the particulate emissions.	December 2012	FGPORTABLE FGSCREENING
EUSCREENYARD	Fugitive dust sources associated with the transport and handling of iron ore pellets and fines associated with United States Steel's ore screening equipment include: <ul style="list-style-type: none"> <li>• Front end loader travel areas within and in between storage piles in No. 5 and 6 Yards and the portable screening units</li> <li>• Raw pellet and pellet fines load out activities from ore stock piles in No. 5 and 6 Yard</li> <li>• Front end loader travel areas between storage piles at the No. 3 ore dock and the stationary screening plant</li> <li>• Raw pellet and pellet fines load out activities from ore stock piles at No. 3 ore doc</li> </ul>	December 2012	NA

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.

**The following conditions apply to: EUFIXEDSCREEN**

**DESCRIPTION:** 800 ton per hour stationary screening equipment with an electric powered engine used for the screening of iron ore pellets. The screening equipment includes a dump hopper and belt feeder, a feed hopper; feed conveyor system; a screen; a system of conveyors for screened pellet delivery to the B2 Conveyor, Ore Jenny, and/or storage pile via stacker; and a conveyor system to a fines collection bin.

**Flexible Group ID:** FGSCREENING

**POLLUTION CONTROL EQUIPMENT:** Control equipment includes a screening enclosure (full boot) that covers the screen area and screen transfer points, and partial enclosures on conveyor transfer points.

**I. EMISSION LIMITS**

1. Visible emissions from the screening enclosure (full boot) that covers the screen area and screen transfer points of EUFIXEDSCREEN shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1331(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**II. MATERIAL LIMITS**

1. The permittee shall not process any asbestos tailing or asbestos containing waste materials in EUFIXEDSCREEN pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. **(40 CFR Part 61 Subpart M)**
2. The permittee shall not process through EUFIXEDSCREEN more than 800 tons of material per hour based on a 24 hour block average. **(R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUFIXEDSCREEN unless the program for fugitive emissions control specified in Appendix A has been implemented and is maintained. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**
2. The permittee shall update the fugitive dust plan if it is determined to be insufficient by the AQD District Supervisor. The permittee shall provide an updated fugitive dust plan to the AQD District Supervisor for review and approval within 30 days of notification that the plan is insufficient. **(R 336.1371(5))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall install and maintain belt scales on EUFIXEDSCREEN which will record the daily throughput rate for EUFIXEDSCREEN. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not operate EUFIXEDSCREEN unless the screening enclosure (full boot) that covers the screen area and material transfer points is installed, maintained, and operated in a satisfactory manner consistent with the manufacturer's specifications. Maintenance of the enclosure in accordance with the manufacturer's specifications is sufficient to maintain a minimum particulate control efficiency of at least 90%. **(R 336.1205, R 336.1301, R 336.1331(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

#### **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))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1301, R 336.1331(1)(c), R 336.1303, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall keep records of the amount of material processed through EUFIXEDSCREEN on a 24 hour block average basis. The permittee shall keep records of the amount of material processed on file and make them available to the Department upon request. **(R 336.1331(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The permittee shall perform a non-certified visible emission observation of the ore screening operations for EUFIXEDSCREEN at least once per week for a minimum of 15-minutes during ore screening activity. After one year of visible emission observations, the permittee may petition to the Department to reduce the minimum time of an observation from 15 minutes to a shorter timeframe, as approved by the District Supervisor. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken. **(R 336.1301, R 336.1303)**
4. The permittee shall perform a Method 9 certified visible emission observation of the ore screening operations for EUFIXEDSCREEN at least once per month during ore screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action. **(R 336.1301, R 336.1303)**

#### **VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUFIXEDSCREEN. **(R 336.1201(7)(a))**

#### **VIII. STACK/VENT RESTRICTIONS**

NA

#### **IX. OTHER REQUIREMENTS**

1. Within 30 days of becoming operational, the permittee shall label EUFIXEDSCREEN, according to a method acceptable to the AQD District Supervisor. Labels shall be in a conspicuous location on the equipment. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed. **(R 336.1201)**

**The following conditions apply to: EUSCREENYARD**

**DESCRIPTION:** Fugitive dust sources associated with the transport, handling and screening of iron ore pellets associated with U.S. Steel's ore screening equipment.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** NA

**I. EMISSION LIMITS**

1. Visible emissions from all wheel loaders, all truck traffic, and each of the material storage piles, operated and maintained in conjunction with EUSCREENYARD, shall not exceed a three-minute average of 5 percent opacity. Compliance shall be demonstrated using Test Method 9D as defined in Section 324.5525(j) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), Act 451 Section 324.5525(j))**
2. The requirements of SC I.1 will not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour, if the requirements of SC III.3 are met. **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), Act 451 Section 324.5525(j))**

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUSCREENYARD unless the program for fugitive emissions control specified in Appendix A has been implemented and is maintained. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**
2. The permittee shall update the fugitive dust plan if it is determined to be insufficient by the AQD District Supervisor. The permittee shall provide an updated fugitive dust plan to the AQD District Supervisor for review and approval within 30 days of notification that the plan is insufficient. **(R 336.1371(5))**
3. Prior to the exemption specified in SC I.2 being used, the permittee shall install a wind monitor that continuously monitors and records the wind speed at the location of the storage piles. **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), Act 451 Section 324.5525(j))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

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))**

1. The permittee shall perform a non-certified visible emission observation for EUSCREENYARD at least once per week for a minimum of 15-minutes during ore screening activity. After one year of visible emission observations, the permittee may petition to the Department to reduce the minimum time of an observation from 15 minutes to a shorter timeframe, as approved by the District Supervisor. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken. **(R 336.1301, R 336.1303)**
2. The permittee shall perform a Method 9D certified visible emission observation for EUSCREENYARD at least once per month during ore screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action. **(R 336.1301, R 336.1303, Act 451 Section 324.5525(j))**
3. The permittee shall monitor and record, at least once per quarter, the moisture content of the unscreened iron ore pellets during ore screening operations from a representative storage pile in the area where the loaders are moving material, to verify that the moisture content is at least 1.5%. This shall be done with methods as approved by the AQD District Supervisor. **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**FLEXIBLE GROUP SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FGPORTABLE	Two sets of portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors for each portable screener.	EUPORTABLE1 EUPORTABLE2
FGSCREENING	Stationary and portable screening equipment for the U.S. Steel ore operations	EUFIXEDSCREEN EUPORTABLE1 EUPORTABLE2

**The following conditions apply to: FGPORTABLE**

**DESCRIPTION:** Two sets of portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors for each portable screener.

**Emission Units:** EUPORTABLE1, EUPORTABLE2

**POLLUTION CONTROL EQUIPMENT:** The feed conveyors for the portable screening units are partially enclosed which mitigates particulate emissions.

**I. EMISSION LIMITS**

1. Visible emissions from each screening unit of FGPORTABLE shall not exceed a six-minute average of 20 percent opacity except for one 6-minute average per hour of not more than 27% opacity. **(R 336.1301(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**II. MATERIAL LIMITS**

1. The permittee shall not process any asbestos tailing or asbestos containing waste materials in FGPORTABLE pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. **(40 CFR Part 61 Subpart M)**
2. The permittee shall not process more than 350 tons per hour based on a daily average through each screening unit of FGPORTABLE. **(R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The permittee shall burn only diesel fuel, with the maximum sulfur content of 500 ppm (0.05 percent) by weight, in the engine portion of each FGPORTABLE. **(R 336.1205(1)(a), R 336.1402(1))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate FGPORTABLE unless the program for fugitive emissions control specified in Appendix A has been implemented and is maintained. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**
2. The permittee shall not operate the engine portion of FGPORTABLE, EUPORTABLE1 and EUPORTABLE2 combined, for more than 16,785 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall install and maintain a belt scale on each EUPORTABLE1 and EUPORTABLE2 of FGPORTABLE which records the daily throughput rate for each EUPORTABLE1 and EUPORTABLE2. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not operate FGPORTABLE unless the units are installed, maintained, and operated in a satisfactory manner consistent with the manufacturer's specifications. Configuration and maintenance of the equipment in accordance with the manufacturer's specifications is sufficient to minimize particulate emissions and maintain a minimum particulate control efficiency of 85%. **(R 336.1205, R 336.1301, R 336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

**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))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1301, R 336.1303, R 336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall keep records for EUPORTABLE1 and EUPORTABLE2 separately, of the amount of material processed per day and the hours of operation per day. The permittee shall keep records of the amount of material processed and hours of operation on file and make them available to the Department upon request. **(R336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The permittee shall perform a non-certified visible emission observation of the ore screening operations for EUPORTABLE1 and EUPORTABLE2 of FGPORTABLE at least once per week for a minimum of 15-minutes during ore screening activity. After one year of visible emission observations, the permittee may petition to the Department to reduce the minimum time of an observation from 15 minutes to a shorter timeframe, as approved by the District Supervisor. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken. **(R 336.1301, R 336.1303)**
4. The permittee shall perform a Method 9 certified visible emission observation of the ore screening operations for EUPORTABLE1 and EUPORTABLE2 of FGPORTABLE at least once per month during ore screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action. **(R 336.1301, R 336.1303)**
5. The permittee shall keep records of, in a satisfactory manner, the maximum sulfur content of the fuel for each shipment of fuel received. If supplier certification is used for this purpose, records of certification must contain the name of the supplier. **(R336.1205, R336.1225, R336.1331, R 336.1402, R336.1702)**
6. The permittee shall monitor and record the hours of operation of each engine portion of FGPORTABLE on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGPORTABLE. **(R 336.1201(7)(a))**

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

1. Within 30 days of becoming operational the permittee shall label EUPORTABLE1 and EUPORTABLE2, according to a method acceptable to the AQD District Supervisor. Labels shall be in a conspicuous location on the equipment. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed. **(R 336.1201)**

**The following conditions apply to: FGSCREENING**

**DESCRIPTION:** Stationary and portable screening equipment for the U.S. Steel ore operations.

**Emission Units:** EUFIXEDSCREEN, EUPORTABLE1, EUPORTABLE2

**POLLUTION CONTROL EQUIPMENT:** The feed conveyors are partially and/or fully enclosed to reduce fugitive emissions.

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

1. The permittee shall not process through FGSCREENING more than 7,750,250 tons per year based on a 12-month rolling time period average, of that not more than 5,874,750 tons per year based on 12-month rolling time period basis shall be processed through FGPORTABLE. (R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

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))

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))
2. The permittee shall keep records of the amount of material processed through EUFIXEDSCREEN and FGPORTABLE on a monthly and 12-month rolling time period basis. The permittee shall keep records of the amount of material processed on file and make them available to the Department upon request. (R336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

## **Appendix A FUGITIVE DUST CONTROL PLAN**

### **U. S. Steel Great Lakes Works Iron Ore Pellet Screening Operations Fugitive Dust Plan**

#### **Purpose**

This plan describes all the fugitive dust sources and the control measures and operating procedures that can be used to minimize fugitive dust for the U. S. Steel screening operations. U. S. Steel will implement this plan to minimize fugitive dust and to ensure that visible emissions from the associated activities do not exceed the permitted opacity standard. If necessary, U. S. Steel may update this plan and submit it to the AQD District Supervisor for review and approval.

#### **Scope**

U. S. Steel maintains a separate fugitive dust plan for the Great Lakes Works facility which addresses controls and practices for various sources of fugitive dust. The following plan supplements it by addressing sources of fugitive dust emissions which are specific to the Iron Ore Screening Operation.

#### **Process Description**

The equipment consists of a fixed screening station located on the north end of No. 3 Ore Dock, two portable screeners, and conveyors and stackers to handle the material. The fixed screening station is electrically powered and supplies screened pellets to the Ore Jenny (a railcar loading station), the B2 Blast Furnace Conveyor, and/or a screened pellet storage pile. The two portable screening stations are diesel powered. The screening and handling equipment will be installed with enclosures that will reduce particulate emissions.

#### **Fugitive Dust Source Categories and Control Measures**

Unpaved Roads – There is one defined unpaved road connecting #5/6 yards with #3 ore dock where the fixed screener is located. Pellets are moved from #5/6 yards to #3 ore dock for screening by front-end loaders, dump trucks, or equivalent. The following control methods will be utilized:

- 1) All unpaved roads will be treated with dust suppressant.
- 2) The unpaved roads will be treated as necessary, at least once per month, from March to October (inclusive), unless wet weather conditions preclude treatment or freezing conditions present a hazard.

Storage Piles – Storage piles containing iron ore pellets for use in the manufacturing of iron are stored outside throughout the year. Front-end loaders move material in and out of these piles as needed for storage and usage. Stacker booms are utilized to load storage piles when appropriate.

- 1) Where front-end loaders are used to load or unload storage piles, the loader bucket is emptied in a manner that minimizes drop distance to the receiving storage pile or truck bed to the extent practicable.
- 2) Where conveyor stacker booms are used to load storage piles, the booms are operated in a manner that minimizes the drop distance to the receiving storage pile to the extent practicable.
- 3) Vehicle exhaust is directed upwards to prevent direct contact with storage piles.
- 4) Pellet fines from the fixed screening station are collected in an enclosed bin rather than a storage pile. This bin is emptied into a dump truck for transportation via a partially enclosed material loading area.

Transportation of Bulk Materials – Materials are moved onsite for the screening operation in a variety of ways, including: dump trucks, front-end loaders, and conveyors.

- 1) When Iron Ore Pellets or Fines are transported in trucks, adequate freeboard is maintained to prevent material spillage onto roadways.
- 2) Truck bodies are inspected to insure integrity and prevent material spillage.
- 3) Vehicles are limited to a maximum speed of 15 mph.
- 4) Full and/or partial enclosures are used to control emissions from transfer points between conveyors and screening beds at the fixed screening station and the portable screening stations.

#### **Effectiveness Monitoring**

- 1) Visible emissions will be evaluated in accordance with the follow permit conditions:
  - a. For EUFIXEDSCREEN SC VI.3 and VI.4
  - b. For EUSCREENYARD SC VI.1 and VI.2
  - c. For FGPORTABLE SC SVI.3 and VI.4

#### **Correction Action**

Upon observation of visible emissions exceeding permitted limits, the permittee shall initiate corrective action.