

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B157730379

FACILITY: GREDE LLC - IRON MOUNTAIN		SRN / ID: B1577
LOCATION: 801 S CARPENTER AVE, KINGSFORD		DISTRICT: Upper Peninsula
CITY: KINGSFORD		COUNTY: DICKINSON
CONTACT: Jack Bomberg , EHS Supervisor		ACTIVITY DATE: 07/20/2015
STAFF: Eric Grinstern	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

FACILITY DESCRIPTION

Grede LLC. – Iron Mountain is located in the city of Kingsford and produces gray and ductile iron castings used in industrial machinery, hydraulic valves, and agricultural equipment. The major production operations are raw material handling and preparation, mold and core production, metal melting, pouring, cooling and shakeout, and cast finishing.

The facility operates a cupola that is controlled with an afterburner for carbon monoxide control and a baghouse for particulate control. Other processes at the facility are controlled with air pollution control equipment including wet scrubbers, baghouses, cartridge filters, and acid scrubbers.

The facility's current operations are generally Sunday evening through Thursday afternoon. The facility has approximately 390 employees. The facility only operates the Module portion of the facility about one day every two weeks.

REGULATORY ANALYSIS

The facility is a Title V subject source (ROP No. MI-ROP-B1577-2014) because the potential to emit criteria pollutants exceeds the major source threshold and because the facility's PTE for HAPs exceeds the major source threshold. The facility is subject to the Iron and Steel Foundry NESHAP, Subpart EEEEE. NESHAP subject emission units are EU-009 Cupola, EU-1.6 Main Plant Pouring and Cooling, EU-P036 Module Pouring and Cooling, and EU-P044 Ductile Iron Production Unit. The following emission units are subject to CAM requirements in the ROP: EU-P012 (PM), EU-P014 (PM), EU-P018 (PM) and EU-PO40 (PM).

COMPLIANCE EVALUATION

At the facility AQD staff consisting of Eric Grinstern and Joe Scanlan arrived at approximately 09:30 CST and met with Jack Bomberg, EHS Supervisor, Thomas Griggs, Human Resource Manager, Bill Buchcuski, Maintenance and "Sunny" (Lawrence) Chick, Maintenance.

SOURCE-WIDE CONDITIONS

Emission/Material Limits

SOURCE-WIDE has limits that restricts the emission of PM10 and VOC on a facility-wide basis.

Compliance with the PM10 and VOC emission limits is demonstrated through compliance with the metal throughput limits, which correlate to compliance with the emission limits.

Review of facility records showed metal throughput to be below the permitted 12-month rolling limit. Records were provided documenting compliance. (September 2013-August 2014).

The facility is required to implement a Fugitive Dust Control Plan for the scrap and charge handling processes. During the inspection, staff observed excessive particulate emissions being generated from the conveyor that brings internal runaround to the outside scrap/charge handling area. The facility will be requested to address the cause of the emissions.

EU-P009 CUPOLA

Emission unit includes a WRIB Company Inc. 72 inch refractory lined, water wall, high efficiency Cupola. The pollution control equipment includes afterburners, a quench tank, and a positive pressure baghouse. The cupola is subject to Subpart EEEEE.

Emission/Material Limits

EU-P009 has limits that restrict the emission of CO, PM, PM10 and SO2 from the cupola. Compliance with the emission limits is demonstrated through control equipment monitoring to demonstrate proper operation and compliance testing.

The most recent testing to demonstrate compliance with the emission limits was conducted in December 2013. Testing showed compliance with the emission limits.

Inspection Observations:

Staff observed the cupola baghouse prior to entering the facility from approximately 08:50 until 09:25. During this period of time opacity was observed almost continuously with the volume and density of the opacity varying. During previous inspections as well as during stack testing to demonstrate compliance with the PM limits, no opacity was observed from the baghouse.

During the inspection, staff observed the baghouse prior to lunch when the unit was off-blast. During this time no opacity was observed. Staff observed the baghouse again in the afternoon after 14:00 when the unit was on-blast. During this time opacity was observed almost continuously. Staff conducted Method 9 readings to determine compliance with the Rule 301 opacity limit of 20% (except for one 6-minute average per hour not more than 27%), General Condition 11. of the ROP. The highest 6-minute average recorded was 24%, with the second highest recorded average being 18%. Therefore the observed opacity was not in violation of Rule 301.

The facility has a charge limit of 450 tons per day and 164,250 tons per 12-month period. Compliance is demonstrated via charge records. Facility records show compliance with the 12-month rolling time period limit, with the most recent 12-month melt amount being 54,726 tons. Review of melt logs for the past two years showed compliance with the 450 ton per day limit.

Monitoring/Recordkeeping

The facility is required to maintain records of the following:

1. Number and weight of charges on a production day basis.
 - Records provided for the past two years
2. Records of the tons of metal charged on a 12-month rolling time period.
 - Records provided for the past two years
3. Hours of operations.
 - Records provided for the past two years
4. Record of CO, PM10 and SO2 emissions on a 12-month rolling time period.
 - Records provided for the past two years
5. Temperature of cupola off-gas.
 - Records provided for the most recent 3-months
6. Baghouse pressure drop on a continuous basis.

- **Records provided for the most recent 3-months**

7. Amperage of the emission control system fan on a continuous basis.

- **Records provided for the most recent 3-months**

As part of demonstrating proper operation of the baghouse, the permit requires the pressure drop to be monitored and recorded daily. The pressure drop must be within the range listed in the PMP, which is a differential of a minimum of 1.0 inch. The pressure drop of the baghouse controlling EU-P009 was 6.33 inches at the time of the inspection.

Review of the past 3-months of continuous record appeared to show compliance, except for July 29, 2015. The pressure drop records appeared to show operation below the 1.0 inch minimum.

Proper operation of the afterburner is demonstrated through monitoring the temperature. The afterburner temperature must be maintained above a 15 minute average of 1300 degrees F, outside of the off-blast allowance time. The afterburner temperature at the time of the inspection was 1625 degrees F. Review of the past 3-months of continuous records appeared to show compliance, except for July 29, 2015. The afterburner temperature was below the 1300 degree minimum for part of the operating day.

Proper operation is also based upon the emission control fan amperage, between 115 and 200 amperes. During the inspection the fan amperage was 204, which is above the established range for proper operation. Review of the past 3-months of continuous record appeared to show compliance, except for July 29, 2015. The fan amperage was below the established range for part of the operating day.

Under permit Conditions 13 &14, proper operation is no visible emissions from the baghouse, the observation of visible emissions is considered an excursion under CAM in regards to compliance with the particulate matter. As noted above, VE was observed during the inspection, therefore, the baghouse is deemed to be not properly operating and the facility has incurred an excursion for the particulate matter limits from the baghouse.

Status: Noncompliance

Testing/Sampling

The facility is required to test between 6 and 18 months prior to the expiration of the ROP.

The facility tested and demonstrated compliance with the ROP limits emission limits in December 2013.

Status: Compliant

Stack/Vent Restrictions

Visual evaluation of the stack (SV009-324644) showed that it appeared to meet the height requirement.

EU-P011 SHELL CORE

Emission unit represents the production of phenolic resin-baked (shell) cores. The cores are produced on 21 natural gas heated core machines. Emissions from the core machines are vented indoors, and subsequently the core area is vented by fans located on the roof.

Emission/Material Limits

EU-P011 has limits that restrict the emission of PM to 0.10 pounds per 1,000 pounds of exhaust gases. Compliance with the emission limit is based on proper operation of the core machines. Compliance can also be verified through emissions testing, which has not been required.

EU-P012 MAIN PLANT SAND SYSTEM

Process includes activities associated with collection and distribution of mold sand used in the Main Plant with the exception of the Sand Conditioning System. The Main Plant Sand System is controlled with a wet dust collector. Additionally, the Module sand heater/cooler are ducted to and controlled by the Main Plant Sand System wet dust collector. This is a CAM subject emission unit for PM.

Emission/Material Limits/Records

EU-P012 has limits that restrict the emission of PM and PM10. Compliance with the emission limits is demonstrated through control equipment (wet collector) monitoring to demonstrate proper operation. During the inspection, issues were noted regarding adherence to parametric monitoring ranges, which are detailed below.

Design Parameters/Testing/Monitoring/Records

To demonstrate proper operation of the large wet collector, the permit requires daily monitoring and recording of the fan amperage and pressure drop. Additionally, proper operation is determined through daily visible emissions observations.

During the inspection the fan amp reading was 115, which is below the specified (PMP) range (122-137).

During the inspection the pressure drop gauge read 0.0" and was assumed to not be working by facility staff. The pressure drop is required to be between 2.0 and 4.0 inches of pressure drop for proper operation.

	Pressure Drop	(proper range)	Amp	(proper range)
Large Wet coll.	0.0"	(2.0-4.0)	115	(122-137)

The pressure drop and fan amps outside of the established ranges constitute improper operation of the control equipment. In accordance with the permit, operation outside of the established ranges equates to an excursion in regards to compliance with the particulate limit under CAM.

Staff made observations of the large wet collector stack from the roof. No VE was noted during the inspection.

The facility provided copies of the daily records of pressure drop and amp readings for the past year. Review of the records showed 24 days that readings were not taken. Review of the records for the days that the pressure drop and amp readings were made, showed that they were always within the established range, however, the facility stated that if a readings is out of range they make corrections prior to recording the value.

Status: Noncompliant

EU-P014 MAIN PLANT FINISHING

Process is defined as the collection of dust from all activities associated with metal finishing conducted in the Main Plant. These activities include grinding, chipping, and tumbling (Wheelabrators). The process exhaust is collected by three pulse-jet baghouses (Steelcraft, East Fuller, and West Fuller). This emission unit is subject to CAM for PM.

Emission/Material Limits

EU-P014 has limits that restrict the emission of PM and PM10. Compliance with the emission limits is demonstrated through control equipment (baghouses) monitoring to demonstrate proper operation.

Design Parameters/Testing/Monitoring/Records

To demonstrate proper operation of the baghouses the permit requires daily monitoring and recording of the pressure drops and fan amps.

The facility provided copies of the daily records of pressure drop and amp readings for the past year. Review of the records showed 24 days that readings were not taken. Review of the records for the days that the pressure drop and amp readings were made, showed that they were always within the established range, however, the facility stated that if a readings is out of range they make corrections prior to recording the value.

During the inspection the following values were observed to be within the specified proper ranges.

	Pressure Drop	(proper range)	Amp	(proper range)
Steelcraft	4.9"	(3.5-5.0)	160	(145-160)
E. Fuller	7.0"	(5.0-7.0)	100	(100-120)
W. Fuller	6.5"	(5.0-7.0)	140	(120-140)

During the inspection no VE was noted from any of the baghouse exhausts.

Status: Noncompliant

EU-P016 – MAIN PLAN POURING & COOLING

Process includes all activities associated with the pouring and cooling of molten iron on six mold lines in the Main Plant. There is no dust collection equipment associated with this emission unit

Emission/Material Limits

EU-P016 has limits that restrict the emission of PM10.

The emission unit is subject to Subpart EEEEE, PM limit. Compliance with the PM emission limit is demonstrated through emissions testing conducted in accordance with Subpart EEEEE in May 2012, at which time the facility demonstrated compliance without control.

EU-P018 MAIN PLANT SHAKEOUT

Castings, gates, risers, and sand are mechanically separated by shaking in the Main Plant. The shakeout receives the materials from the end of the dump conveyor. The Main Plant Shakeout process is controlled with a wet dust collector, referred to as the "small wet collector". This emission unit is subject CAM for PM.

Emission/Material Limits

EU-P018 has limits that restrict the emission of PM and PM10. Compliance with the emission limits is demonstrated through control equipment (small wet collector) monitoring to demonstrate proper operation.

Design Parameters/Testing/Monitoring/Records

To demonstrate proper operation of the small wet collector the permit requires daily monitoring and recording of the fan amperage and pressure drop.

The facility provided copies of the daily records of pressure drop and amp readings for the past year. Review of the records showed 24 days that readings were not taken. Review of the records for the days that the pressure drop and amp readings were made, showed that they were always within the established range, however, the facility stated that if a readings is out of range they make corrections prior to recording the value.

At the time of the inspection the pressure drop reading was 2.0", which is below the specified range (3.0 – 6.0 inches).

	Pressure Drop	(proper range)	Amp	(proper range)
Small Wet Coll.	2.0"	(3.0-6.0)	110	(87-102)

Note: Facility stated that the amp gauge read 10 amperes higher than actual. Therefore the amp reading at the time of the inspection was 100.

The pressure drop reading outside of the established ranges constitute improper operation of the control equipment. In accordance with the permit, operation outside of the established ranges equates to an excursion in regards to compliance with the particulate limit under CAM.

During the inspection no VE was noted from the exhaust of the small wet collector.

Status: Noncompliant

EU-P021 ISOCURE

Production of phenolic urethane coldbox (Isocure) cores in the Main Plant using dimethylethylamine (DMEA). The facility does not use triethylamine (TEA) in the Isocure processes. Sand and resin are mixed in three mullers prior to addition to core machines. The cores are produced on ten Isocure core machines. The Main Plant Isocure mullers, silo, and Kloster heater/cooler emissions are controlled by a baghouse. Emissions from the Main Plant isocure core machines are controlled by a cartridge filter followed by an acid scrubber.

Emission/Material Limits/Records

EU-P021 has limits that restrict the emission of DMEA, PM, PM10 and VOC. Compliance with the emission limits is demonstrated through control equipment (baghouse, acid scrubber) monitoring to demonstrate proper operation and a material usage limit.

Design Parameters/Testing/Monitoring/Records

To demonstrate proper operation of the acid scrubber, the permit requires monitoring and recording of the flow rate and pH once per shift. The facility maintains records of the pH and flow.

The facility provided copies of the daily records of pH and flow for the past year. Review of the records showed 24 days that readings were not taken. Review of the records for the days that the readings were made, showed that they were always within the established range, however, the facility stated that if a readings is out of range they make corrections prior to recording the value. The permit requires pH and flow rate to be recorded once per shift, the records provided only show readings being made once per day.

Status: Noncompliant

Readings at the time of the inspection:

	pH	(proper range)	Flow	(proper range)
Isocure Scrubber	2.0	(1.0-2.5)	115	(85-130)

Inspection Observations:

In the area of the scrubber inside the plant the odor was nearly overwhelming. The facility stated that they are running larger cores that require an increased amount of resin/catalyst. The odor could be an indication that the system is not properly capturing and controlling emissions.

EU-P032 MODULE SAND SYSTEM

Process includes activities associated with the collection and distribution of mold sand used in the Module Plant. These activities include the Module Sand Muller, collection of spill sand, screening of used sand, and conveying sand. The Module Sand System is controlled by two wet dust collectors (East and West) which also serve Module Finishing, and Module Shakeout.

Emission/Material Limits

EU-P032 has limits that restrict the emission of PM and PM10. Compliance with the emission limits is demonstrated through control equipment (wet collectors) monitoring to demonstrate proper operation.

Design Parameters/Testing/Monitoring/Records

To demonstrate proper operation of the wet collectors the permit requires daily monitoring and recording of the pressure drop and amps.

The facility provided copies of the daily records of pressure drop and amp readings for the past year. Review of the records showed 24 days that readings were not taken. Review of the records for the days that the pressure drop and amp readings were made, showed that they were always within the established range, however, the facility stated that if a readings is out of range they make corrections prior to recording the value.

Readings at the time of the inspection:

	Pressure Drop	(proper range)	Amp	(proper range)
East Wet coll.	6.0"	(3.0-5.0)	142	(100-130)
West Wet coll.	8.0"	(3.0-5.0)	0	(100-130)

The pressure drop and fan amps outside of the established ranges constitute improper operation of the control equipment. In accordance with the permit, operation outside of the established ranges equates to an excursion in regards to compliance with the particulate limit under CAM.

Staff made observations of the wet collector stack from the roof. No VE was noted during the inspection.

Status: Noncompliant

EU-P034 MODULE FINISHING

Process is defined as the collection of dust from all activities associated with metal finishing conducted in the Module Plant. These activities include grinding, chipping, and hang blast (Wheelabrators). The Module Finishing Process is controlled by the East and West wet collectors, which also serve the Module Sand System, and Module Shakeout.

Emission/Material Limits

EU-P034 has limits that restrict the emission of PM and PM10. Compliance with the emission limits is demonstrated through control equipment (wet collectors) monitoring to demonstrate proper operation.

Design Parameters/Testing/Monitoring/Records

To demonstrate proper operation of the wet collectors the permit requires daily monitoring and recording of the pressure drop.

The facility provided copies of the daily records of pressure drop and amp readings for the past year. Review of the records showed 24 days that readings were not taken. Review of the records for the days that the pressure drop and amp readings were made, showed that they were always within the established range, however, the facility stated that if a readings is out of range they make corrections prior to recording the value.

Readings at the time of the inspection:

	Pressure Drop	(proper range)	Amp	(proper range)
East Wet coll.	6.0"	(3.0-5.0)	142	(100-130)
West Wet coll.	8.0"	(3.0-5.0)	0	(100-130)

The pressure drop and fan amps outside of the established ranges constitute improper operation of the control equipment. In accordance with the permit, operation outside of the established ranges equates to an excursion in regards to compliance with the particulate limit under CAM.

Staff made observations of the wet collector stack from the roof. No VE was noted during the inspection.

Status: Noncompliant

EU-P036 – MODULE POURING AND COOLING

Process includes all activities associated with the pouring and cooling of molten iron on one Hunter mold line in the Module Plant. There is no dust collection equipment associated with this emission unit

Molten metal is supplied by the cupola.

Emission/Material Limits

EU-P036 has limits that restrict the emission PM10.

The PM limit is the pouring limit from Subpart EEEEE. Compliance with the PM emission limit is demonstrated through emissions testing conducted in accordance with Subpart EEEEE in May 2012, at which time the facility demonstrated compliance without control.

EU-P038 MODULE SHAKEOUT

Castings, gates, risers, and sand are mechanically separated by shaking in the Module Plant. The Module Shakeout process is controlled by two wet dust collectors, which also serve the Module Sand System and Module Finishing.

Emission/Material Limits

EU-P038 has limits that restrict the emission of PM and PM10. Compliance with the emission limits is demonstrated through control equipment (wet collectors) monitoring to demonstrate proper operation.

Design Parameters/Testing/Monitoring/Records

To demonstrate proper operation of the wet collectors the permit requires daily monitoring and recording of the pressure drop.

The facility provided copies of the daily records of pressure drop and amp readings for the past year. Review of the records showed 24 days that readings were not taken. Review of the records for the days that the pressure drop and amp readings were made, showed that they were always within the established range, however, the facility stated that if a readings is out of range they make corrections prior to recording the value.

Readings at the time of the inspection:

	Pressure Drop	(proper range)	Amp	(proper range)
East Wet coll.	6.0"	(3.0-5.0)	142	(100-130)
West Wet coll.	8.0"	(3.0-5.0)	0	(100-130)

The pressure drop and fan amps outside of the established ranges constitute improper operation of the control equipment. In accordance with the permit, operation outside of the established ranges equates to an excursion in regards to compliance with the particulate limit under CAM.

Staff made observations of the wet collector stack from the roof. No VE was noted during the inspection.

Status: Noncompliant

EU-P040 SAND CONDITIONING SYSTEM

Process represents the activities associated with the conditioning of mold sand used in the Main Plant. The process cools hot sand to approximately 120 degrees Fahrenheit or less while maintaining grain distribution and bond addition. A Steelcraft baghouse collects the emissions from all of the sand handling activities which include screening operations, storage silos, cooling and mixing, and the cyclone separator. This emission unit is subject CAM for PM.

Emission/Material Limits

EU-P040 has limits that restrict the emission of PM and PM10. Compliance with the emission limits is demonstrated through control equipment (baghouse) monitoring to demonstrate proper operation

Status: Compliant

Design Parameters/Testing/Monitoring/Records

To demonstrate proper operation of the baghouse, the permit requires daily monitoring and recording of

the pressure drop and fan amperage.

The facility provided copies of the daily records of pressure drop readings for the past year. Review of the records showed 24 days that readings were not taken. Review of the records for the days that the pressure drop readings were made, showed that they were always within the established range, however, the facility stated that if a readings is out of range they make corrections prior to recording the value.

Readings at the time of the inspection:

	Pressure Drop	(proper range)	Amp	(proper range)
Steelcraft	4.6"	(3.5-5.5)	125	(110-160)

During the inspection no VE was noted from the exhaust of the collector.

Status: Noncompliant

EU-P041 MAIN PLANT BOND SILO

Process represents the loading of bond into the Main Plant Bond Silo, which is located external to the plant. The bond is used in the Main Plant. A Rumelin bin vent filter controls emissions generated during loading.

Emission/Material Limits

EU-P041 has limits that restrict the emission of PM (0.10 pounds per 1,000 pounds of exhaust gases). Compliance with the emission limits is demonstrated through proper operation of the control equipment (bin vent).

Status: Compliant

EU-P042 MODULE PLANT BOND SILO

Process represents the loading of bond into the Module Bond Silo. The bond is used in the Module Plant. A Flex Kleen bin vent filter controls emissions generated during loading.

Emission/Material Limits

EU-P042 has limits that restrict the emission of PM (0.10 pounds per 1,000 pounds of exhaust gases). Compliance with the emission limits is demonstrated through proper operation of the control equipment (bin vent).

Status: Compliant

EU-PO43 MODULE Isocure

Production of phenolic urethane cold box (Isocure) cores in the Module Plant using dimethylethylamine (DMEA). The facility does not use triethylamine (TEA) in the Isocure processes. Emissions from the Module Isocure process are controlled by a cartridge filter-acid scrubber system. The cores are produced on three core machines. Sand and resin are mixed in a muller prior to addition to core machines. Exhaust from the Module Isocure silos and Module sand heater/cooler is ducted to and controlled by the Main Plant Sand System wet dust collector

Emission/Material Limits/Records

EU-P043 has limits that restrict the emission of DMEA, PM, PM10 and VOC. Compliance with the emission limits is demonstrated through control equipment (baghouse, acid scrubber) monitoring to demonstrate proper operation and a material usage limit. Based on this inspection, parametric monitoring and proper control equipment operation and material usage demonstrate compliance with the emissions limits.

Design Parameters/Testing/Monitoring/Records

To demonstrate proper operation of the acid scrubber, the permit requires monitoring and recording of the flow rate and pH once per shift. The facility maintains records of the pH and flow.

The facility provided copies of the daily records of pH and flow for the past year. Review of the records showed 24 days that readings were not taken. Review of the records for the days that the readings were made, showed that they were always within the established range, however, the facility stated that if a readings is out of range they make corrections prior to recording the value. The permit requires pH and flow rate to be recorded once per shift, the records provided only show readings being made once per day.

Readings at the time of the inspection:

	pH	(proper range)	Flow(PSI)	(proper range)
Isocure Scrubber	2.0	(1.0-2.5)	19	(15-125)

Status: Noncompliant

EU-PO44 DUCTILE IRON PRODUCTION UNIT

Ductile Iron Production Unit consists of a charging system, two 6,000 lb. capacity electric melting furnaces, a ladle for inoculation, with the existing #7 HMP-20 mold machines and pouring/cooling lines utilized for molds and pouring and cooling. The emission unit is subject to the foundry NESHAP, Subpart EEEEE in regards to the furnace and pouring operations. The furnace emissions are controlled by a Torit cartridge collector that is equipped with a bag leak detection system. The emission unit is permitted to operate a charge preheater; however, one is currently not installed.

Ductile iron was not being produced at the time of the inspection.

Emission/Material Limits

EU-P044 has limits the emission of PM10. Compliance with the emission limits is demonstrated through control equipment (cartridge collector) monitoring to demonstrate proper operation and compliance testing under the NESHAP.

The most recent furnace testing was conducted on December 2013.

The facility has a material Feed/Charge limit of 96 tons per day. The facility provided records demonstrating compliance with the limit.

Status: Compliant

Process/Operational Restrictions/Monitoring/Recordkeeping

To demonstrate proper operation of the capture and control equipment the permit requires the facility to maintain a written O&M Plan, which the facility is maintaining. To demonstrate compliance with the PM10 limit the facility is required to install and operate a bag leak detection system in accordance with Subpart EEEEE. The facility has installed a bag leak detection system.

Status: Compliant

FGMACT-EEEEEE

The facility is subject to the Iron and Steel Foundry NESHAP, Subpart EEEEE. NESHAP subject emission units are EU-009 Cupola, EU-16 Main Plant Pouring and Cooling, EU-P036 Module Pouring and Cooling, and EU-P044 Ductile Iron Production Unit.

Summary of emission limits/restrictions applicable to each emission unit:

Each building or structure housing an iron foundry:

20% fugitive opacity limit, facility is required to conduct testing semi-annually to demonstrate compliance. The facility provided copies of the last four opacity tests conducted Badger Laboratories. The test reports show that no fugitive opacity was observed. The second semi-annual test was conducted on October 29, 2014, which is 14 days past the 6-month requirement. The first test in 2015 was conducted on August 6, 2015, subsequent to the compliance inspection, which is three months past the April 29, 2015 deadline for testing.

Status: Noncompliance

EU-009 Cupola:

PM or Total Metal HAP Limit, VOHAP limit

Status: Facility tested and demonstrated compliance in May 2012

Scrap requirements: The facility has a scrap plan in place in accordance with Subpart EEEEE. The facility charges a considerable amount of auto frag. The facility receives the auto frag from Schneider's Iron and Metal, located in Kingsford. Staff reviewed the mercury switch return data for Schneider's via the National Vehicle Mercury Switch Program database. The returned number of mercury switches was only 77, since the facility joined the program in 2009. Staff contacted Schneider's and spoke with "Connie". Connie stated that they require the switches be removed prior to the vehicles being brought on-site, which is why they have returned a limited number of switches.

EU-P044 DUCTILE IRON:

PM or Total Metal HAP Limit

Status: Facility tested and demonstrated compliance in December 2013

EU-P016 MAIN PLANT POURING AND COOLING

PM or Total Metal HAP Limit

Status: Facility tested and demonstrated compliance in May 2012

EU-P036 MODULE POURING AND COOLING

PM or Total Metal HAP Limit

Status: Facility tested and demonstrated compliance in May 2012

COMPLIANCE STATUS/ISSUES

Based on this inspection, the facility is in compliance with applicable air quality rules and regulations, with the exception of the follow:

EU-009 CUPOLA

- VI.10. Failure to properly operate emission control system – Fan amperage outside of established range at the time of the inspection.
- VI.10. Excursion of PM limit - Fan amperage outside of established range at the time of the inspection.
- VI.13. Failure to properly operate the baghouse – VE noted during inspection
- VI.14. Excursion of PM limit – VE noted during inspection

EU-P012 MAIN PLANT SAND SYSTEM

- VI.1 & 4. Failure to record the pressure drop and fan amperage daily on 24 occasions
- VI.2. Failure to properly operate the wet dust collector – Pressure drop out of established range at the time of the inspection.
- VI.4. Failure to properly operate the wet dust collector – Fan amperage out of established range at the time of the inspection.
- VI.3 & 5. Excursion of PM limit – Pressure drop and fan amperage outside of established range.

EU-P014 MAIN PLANT FINISHING

- VI.1. Failure to record the pressure drop and fan amperages daily on 24 occasions

EU-P018 MAIN PLANT SHAKEOUT

- VI.1 & 4. Failure to record the pressure drop and fan amperage daily on 24 occasions
- VI.2. Failure to properly operate the wet dust collector – Pressure drop out of established range at the time of the inspection.
- VI.4. Failure to properly operate the wet dust collector – Fan amperage out of established range at the time of the inspection.
- VI.3 & 5. Excursion of PM limit – Pressure drop and fan amperage outside of established range.

EU-P021 ISOCURE

III.1. Failure to record the pH and flow rate on 24 occasions (days). Failure to record pH and flow rate each shift for all record reviewed.

EU-P032 MODULE SAND SYSTEM

VI.1 & 4. Failure to record the pressure drop and fan amperage daily on 24 occasions

VI.2. Failure to properly operate the wet dust collector – Pressure drop out of established range at the time of the inspection.

VI.4. Failure to properly operate the wet dust collector – Fan amperage out of established range at the time of the inspection.

VI.3 & 5. Excursion of PM limit – Pressure drop and fan amperage outside of established range.

EU-P034 MODULE FINISHING

VI.1 & 3. Failure to record the pressure drop and fan amperage daily on 24 occasions

VI.2. Failure to properly operate the wet dust collector – Pressure drop out of established range at the time of the inspection.

VI.3. Failure to properly operate the wet dust collector – Fan amperage out of established range at the time of the inspection.

EU-P038 MODULE SHAKEOUT

VI.1 & 4. Failure to record the pressure drop and fan amperage daily on 24 occasions

VI.2. Failure to properly operate the wet dust collector – Pressure drop out of established range at the time of the inspection.

VI.4. Failure to properly operate the wet dust collector – Fan amperage out of established range at the time of the inspection.

VI.3 & 5. Excursion of PM limit – Pressure drop and fan amperage outside of established range.

EU-P040 SAND CONDITIONING SYSTEM

VI.1 & 4. Failure to record the pressure drop and fan amperage daily on 24 occasions

EU-P043 MODULE ISOCURE

III.1. Failure to record the pH and flow rate on 24 occasions (days). Failure to record pH and flow rate each shift for all records reviewed.

FGMACT-EEEE

**V.1. Failure to conduct fugitive opacity testing no less frequent than every 6 months.
Fourteen days late for testing conducted on October 29, 2014.
Three months late for testing conducted on August 6, 2015.**

A Violation Notice will be issued for the above violations.

NAME 

DATE 9/22/15

SUPERVISOR C. Hove

