

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

B171636140

FACILITY: BETZ INDUSTRIES INC		SRN / ID: B1716
LOCATION: 2121 BRISTOL AVE NW, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Mark Kraak , Environmental Manager		ACTIVITY DATE: 08/25/2016
STAFF: Eric Grinstern	COMPLIANCE STATUS: Compliance	
SUBJECT: Unannounced inspection		SOURCE CLASS: SM OPT OUT
RESOLVED COMPLAINTS:		

FACILITY DESCRIPTION

Betz Industries is an iron foundry that primarily produces castings for the machine tool, industrial tool and stamping die industries. The facility has three electric induction furnaces and utilizes a furan sand binder system in a lost foam casting operation.

REGULATORY ANALYSIS

The facility is an opt-out source that holds two permits, 278-98D and 939-90. PTI 939-90 covers a small painting process; 278-98D is an opt-out permit that covers the rest of the foundry operations at the facility. The facility is subject to and considered a "large" existing area sources under the federal Iron and Steel Foundry Area Source National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart ZZZZZ under the Clean Air Act.

COMPLIANCE EVALUATION

Prior to entering the facility a survey of the perimeter showed no unusual odors or opacity. At the facility EG met with Mark Kraak, EHS Manger.

Below is an evaluation of processes with limitation or restrictions.

Pattern Shop

In this location the facility mills the foam patterns used in the lost foam casting processing. In addition to the milling, the facility utilizes a grinder and compactor, (baghouse controlled) to handle waste Styrofoam.

The pattern shop has four Hoffman Baghouse the exhaust through a single stack. Observation of the stack showed no emissions.

EU-INDUCTION

The facility has three 20-ton holding capacity electric induction furnaces covered under PTI # 278-98D. Each of the furnaces is controlled by a separate lime injected baghouse the exhaust through a single stack. In addition to the furnaces, the same baghouses control the emissions from a charge pre-heater unit and hood for ductile inoculation. At the time of inspection none of the furnaces were being tapped or charged since the facility melts and pours starting at around 20:00 – 21:00.

EMISSION LIMITS

Limits the emission of PM, PM10, PM2.5, Lead, Manganese and Visible Emissions.

Initial compliance with the PM and visible emissions limit was demonstrated via testing conducted in June 2012. Retesting will be required again in 2017 under Subpart ZZZZZ.

Compliance with the emission limits for the remaining pollutants is demonstrated through proper operation of the baghouses and compliance with the scrap management requirements of Subpart ZZZZZ.

Process/Operational Restrictions

Requires the facility to prepare and operate according to an O&M Plan in accordance with Subpart ZZZZZ.

The facility previously submitted an O&M Plan in accordance with Subpart ZZZZZ. The facility provided a list of the monthly PMs conducted as well as a copy of the most recent PM Work Order.

Design/Equipment Parameters

Requires that EU-INDUCTION be equipped with a capture and collection system in accordance with ACGIH.

The furnaces are equipped with Tornado hoods that completely cover the furnace during melting operations. Each furnace is ducted to an individual baghouse.

Requires the facility to conduct monthly visible inspections of the PM control equipment and record the results. The facility provided documentation of the monthly PMs the document compliance with this requirement. Note: the condition requires "visible inspections", not "visible emission inspections".

Testing

Requires PM and opacity testing in accordance with Subpart ZZZZZ. The facility conducted testing on the previous furnace system in 2011 and on the current furnace system in June 2012. On-going opacity testing is required under Subpart ZZZZZ. Retesting every 5 years for PM will occurring in 2017. The facility provided the most recent Method 9 test reports for observations conducted on September 10, 2015 and April 14, 2016. The reports showed compliance with the opacity limits. The frequency was over the required 6 month timeframe. Mr. Kraak explained that Network Environmental read the permit conditions as requiring Method 9 testing to be required no less than every 6 months. That is an incorrect reading of the condition and testing needs to be no less frequent than every 6 months. The facility has scheduled the next round of testing for September, which is complaint with the 6-month time period.

Monitoring/Recordkeeping

Requires initial and subsequent inspections of the PM control devices for EU-INDUCTION in accordance with Subpart ZZZZZ.

The facility provided records demonstrating compliance with the baghouse inspection requirements of Subpart ZZZZZ.

FGFOUNDRY

Flex group that essentially covers all foundry processes that have baghouse control. Establishes PM, PM10 and visible emission limits as well as Subpart ZZZZZ requirements.

EMISSION LIMITS

Limits the emission of PM, PM10, and Visible Emissions. Compliance with the emission limits is demonstrated through proper operation of the baghouses. The facility provided a list of the monthly PMs conducted as well as a copy of the most recent PM Work Order.

Process/Operational Restrictions

Requires the facility to prepare and operate according to an O&M Plan in accordance with Subpart ZZZZZ.

The facility previously submitted an O&M Plan in accordance with Subpart ZZZZZ.

Testing

Requires opacity testing in accordance with Subpart ZZZZZ. The facility conducted testing on the previous furnace system in 2011 and on the current furnace system in June 2012. On-going opacity testing is required under Subpart ZZZZZ.

FGFACILITY

Flex group includes all process equipment source-wide.

FGFACILITY establishes facility-wide PM, PM10, CO, and VOC limits, as well as opt-out limits for HAP emissions. The flex group also incorporates some of the requirements of Subpart ZZZZZ.

Emission Limits

Restricts emission of PM, PM10, CO, VOC and HAP emissions. Compliance with the emission limits is demonstrated via the requirement that the facility calculates and maintain monthly and 12-month rolling time period records of emissions.

The facility provided records demonstrating compliance with the emission limits.

Material Limits

Restricts metal throughput to 65,000 tons melted/year and sand throughput to 325,000 tons/year. Compliance is demonstrated via the requirement that the facility calculates and maintain monthly records of sand and metal throughput.

The facility provided records demonstrating compliance with the material limits.

PTI No. 939-90 – EUSPRAYER

Restricts VOC emissions to 22.5 pound per hour and 0.8 tons per calendar month.

Restricts VOC content to 4.5 pounds per gallon minus water.

Restricts coating usage to 5 gallons per hour and 363 gallons per month.

The facility provided records demonstrating compliance with the above limits.

Subpart ZZZZZ, Area Source Iron and Steel Foundry NESHAP

The facility melts pig iron, stamping scrap and internal returns. This material is in compliance with the certified scrap option of the NESHAP. The facility has previously verified that they have specs regarding scrap that have been conveyed to suppliers as required by the NESHAP.

Since the facility is a "large" area source facility they are subject to compliance testing for the furnaces. The facility conducted compliance testing in April 2011 and June 2012, at which time they demonstrated compliance with both the PM and Total Metal HAP limits.

The facility is currently in compliance with all applicable requirement of Subpart ZZZZZ.

Based on this inspection, the facility is in compliance with applicable air quality rules and regulations at this time.

Attached: Thumb Drive with facility records.

NAME



DATE

9-12-16

SUPERVISOR

