

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

P062649415

FACILITY: NORTHERN STAR INDUSTRIES		SRN / ID: P0626
LOCATION: 3201 E INDUSTRIAL DRIVE, IRON MOUNTAIN		DISTRICT: Upper Peninsula
CITY: IRON MOUNTAIN		COUNTY: DICKINSON
CONTACT: Chris Gendron , EHS Director		ACTIVITY DATE: 07/02/2019
STAFF: Sydney Bruestle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Onsite Inspection to verify compliance with PTI 134-15C		
RESOLVED COMPLAINTS:		

On July 2, 2019 I (Sydney Bruestle) performed a scheduled onsite inspection of Systems Control (Northern Star Industries) located at 3201 E Industrial Drive in Iron Mountain Michigan. While onsite I met with Chris Gendron (EHS Director) and Dawn Stec, they provided me with a tour of the facility and records required by PTI 134-15C. The purpose of this inspection was to verify compliance with Permit to Install (PTI) 134-15C and all other applicable state and federal air quality regulations.

Facility Description:

Systems control manufactures utility industry electrical panels and equipment enclosures. Operations onsite include metal fabrication, painting (powder coating, roll-on coating, and spray coating). The facility receives sheets of steel and bends/welds sheets together to create the enclosures, the sheet metal is washed, acid etched, and coated at various times during the assemble process. Once an enclosure is completed, they add electrical wiring specific to the intended use of the product. The facility was issued a revised permit April 2, 2019 for the use of solvent based coatings instead of water based. A paint kitchen was installed as a part of EU-EECOATINGLINE1, paints are being directly piped from the kitchen into the paint booth. Airless sprayers are used in the paint booth in place of High Volume Low Pressure (HVLV) applicators to avoid increased use of thinning solvents. The existing paint room was modified to include a solvent recovery system. Emissions from the paint booths are controlled by dry filters.

Regulatory Analysis:

Systems Control is a minor source of emissions. They operate under one permit to install, PTI 134-15C. In the newest version of this permit, VOC emission limits were replaced with separate VOC and acetone emission limits, this was done to ensure compliance with air pollution control rule 225. A daily limit for petroleum distillates and limits for ethylbenzene and cumene were also established to meet rule 225.

Below is a description and summary of compliance for each emission unit covered by PTI 134-15C:

EU-EECOATINGLINE1

Description: Metal parts (fabricated steel) coating line consisting of one wash booth, one spray booth, one natural gas fired curing oven, one paint mix booth with a solvent recovery system, and one paint kitchen where paint is piped directly to the spray booth. Dry filters are installed to control emissions.

Emissions limits (SV I. 1-4):

<i>Pollutant</i>	<i>Emission Limit</i>	<i>Actual Emissions/Compliance Verification</i>
VOCs	20.2 tpy	1.79 tpy (May 2019)
Acetone	32.9 tpy	0.1634 tpy (May 2019)
P-chlorobenzotrifluoride	1.1 tpy	0.03 tpy (May 2019)
Petroleum Distillates	32.4 lbs/day	Petroleum distillates had not been used onsite at the time of my inspection. 0 tpy

Material Limits (SC II. 1):

The facility does not use any coatings containing more than 3.5 lb/gal VOCs. Records were reviewed onsite.

Process/Operational Restrictions (SC III. 1-3):

The facility captures waste coatings, hardeners, primers, urethanes, wash materials, and cleanup in closed containers. They dispose of spent filters as hazardous waste and minimize fugitive emissions from VOC and HAP containing materials.

Design/Equipment Parameters (SC IV. 1-2):

Exhaust filters were properly installed, and the facility uses airless applicators.

Testing/Sampling (SC V. 1):

The facility uses manufacturers formulation data to determine the VOC content of each coating.

Monitoring/ Record Keeping (SC VI. 1-4):

Systems Control maintains Safety Data sheets for each material used in EU-EECOATINGLINE1. The plant keeps monthly records of the following information: Gallons of each coating, hardener, primer, urethane, wash material, cleanup and purge solvent used and reclaimed; VOC content, acetone content, p-chlorobenzotrifluoride content, and petroleum distillate content of each material; VOC, acetone, p-chlorobenzotrifluoride, and petroleum distillate mass emission calculations (Only daily emissions records are required for petroleum distillate, tons/calendar month and an annual rate in tons/year are required for the other 3 mentioned above). A copy of the emission records is attached to the hard copy of this report.

EU-POWDERCOAT:

Description: Powder coating line consisting of two wash booths, one natural gas fired dry off oven, one powder coat booth, two natural gas fired curing ovens, and two natural gas fired boilers. Dry filters are installed in the powder coat booth to control emissions.

Process/Operational Restrictions (SC III. 1-2):

Waste materials from the booth are stored in closed containers and disposed of properly. Filters are changed frequently.

Design/Equipment Parameters (SC IV. 1):

The powder coat booth is not operated unless the dry filters are installed.

Monitoring/Record Keeping (SC VI. 1-3):

Systems Control maintains Safety Data Sheets for each material used in the powder coat booth. They maintain maintenance records for the dry filters, they were last changed March 6, 2019. A copy of the completed preventative maintenance is attached to the hard file of this report.

FG-FACILITY:

Description: These conditions apply source wide to all process equipment including equipment covered by other permits, grandfathered equipment and exempt equipment.

Emission Limits (SC I. 1-2):

Pollutant	Emission Limit	Actual emissions
Ethylbenzene	2.61 tpy	0.03 tpy (May 2019)
Cumene	0.2 tpy	9 x 10 ⁻⁵ tpy (May 2019)

Monitoring/Record Keeping (SC VI. 1-2):

Systems Control keeps the following records on a monthly basis for FG-FACILITY: Gallons of each coating and material used onsite, Cumene and ethylbenzene content of each material used onsite, Cumene and ethylbenzene mass emission calculations (in tons/month and tons/year). A copy of the mass emission calculations is attached to the hard file of this report.

Compliance Determination:

At the time of my inspection it appeared Systems Control (Norther Star Industries) was meeting the requirements of PTI 134-15C and all other applicable state and federal air quality standards.

NAME Sage B

DATE 7-31-19

SUPERVISOR ELZ